



**VITUS MARINE, LLC.**

**Chartered Tanker Operations**

Oil Discharge Prevention and Contingency Plan

(CPLAN Parts I, II, III, IV, V)

Revision 1  
September 22, 2011



## MANAGEMENT APPROVAL

Vitus Marine, LLC. (VML) is the operator for oil transportation and transfer operations described and covered herein. This letter serves to certify that all of the resources identified in this plan are available either under direct control of VML or through contract or other approved means. The necessary resources to implement this plan are hereby committed by VML. In the event of an oil spill for which VML is responsible, best efforts will be initiated to expeditiously contain, control and recover any harmful quantity of oil discharged. This document is a planning document and outlines procedures for those potential actions.

Identified persons have the authority to make appropriate expenditures in order to execute the provisions in this plan.

VML will remain in compliance with all state, federal and international requirements as they may apply.



Mark Smith, CEO

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## LIST OF ACCRONYMS

ACC	Alaska Chadux Corporation
ADEC	Alaska Department of Environmental Conservation
ADFG	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
AIMS	Alaska Incident Management System
AOHA	Alaska Office of History and Archaeology
AWO	American Waterways Operators
BAT	Best Available Technology
BBL	Barrel
CFR	Code of Federal Regulations
COTP	Captain of the Port
CRSA	Coastal Resource Service Area
DL	Dangerous Liquid
ESI	Environmental Sensitivity Index
ESA	Environmentally Sensitive Areas
FOSC	Federal On Scene Coordinator
HAZWOPER	Hazardous Waste Operations and Emergency Response
IAP	Incident Action Plan
IBRRC	International Bird Rescue Research Center
IC	Incident Commander
ICS	Incident Command System
IOSC	Initial On Scene Commander
ISO	International Organization for Standardization
KTS	Knots (Nautical Miles)
LEPC	Local Emergency Planning Committee
MESA	Most Environmentally Sensitive Area
MSDS	Material Safety Data Sheet
NIMS	National Interagency Incident Management System
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRC	National Response Center
OSCP	Oil Spill Contingency Plan
OSRO	Oil Spill Response Organization
PFA	Pacific Fishing Assets, LLC.
PIC	Person In Charge
PPE	Personnel Protective Equipment
QI	Qualified Individual
RAC	Response Action Contractor
SMFF	Salvage and Marine Firefighting
SOPEP	Shipboard Oil Pollution Emergency Plan
SOSC	State On Scene Coordinator
TOC	Table of Contents
UC	Unified Command
USCG	United States Coast Guard

USEPA	United States Environmental Protection Agency
USFW	United States Fish and Wildlife Agency
VRP	Vessel Response Plan
VML	Vitus Marine, LLC.

# CONVERSION FACTORS FOR OIL SPILL RESPONSE

## Volume

1 US Gallon = 231 cubic inches = 0.1337 cubic feet  
1 Barrel (BBL) = 42 gallons = 5.615 cubic feet  
1 Barrel = 158.97 liters = 0.159 cubic meters  
1 Gallon = 3.785 liters  
1 Liter = 0.26 gallons  
1 ton = 1000 liters oil = 1 cubic meter = approx. 264 gallons  
1 Cubic Meter = 6.29 barrels = 264.2 gallons  
1 cubic feet = 0.0283 cubic meters = 7.48 gallons  
1 cubic meter = 1,000,000 cubic centimeters = 1,000 liters  
1 US gallon = 1.2 Imperial gallons

## Length

1 inch = 2.54 cm = 25.4 mm  
1 foot = 12 inches = 30.48 cm = 0.3048 meters  
1 yard = 3 feet = .9144 meters  
1 meter = 100 cm = 1000 mm = 3.2808 feet  
1 statute mile = 5280 feet = 0.87 nautical miles  
1 nautical mile = 1.15 statute miles = 6076 feet = 1.852 kilometers = 1852 meters  
1 kilometer = 0.54 nautical miles = 0.62137 statute miles  
1 micron = 1 millionth of a meter ( $1 \times 10^{-6}$ m) = 1000 nanometers  
1 fathom = 6 ft = 1.829 meters  
1 meter = 0.547 fathoms

## Weight

1 pound (lb) = 16 ounces = 0.4536 kilograms  
1 kilogram = 2.2 pounds  
1 gram = 0.03527 ounces  
1 metric ton = 1000 kilograms = 1.102 short tons (US) = 0.984 long tons (English)  
1 long ton (English) = 2240 pounds  
1 Short Ton (US) = 2000 pounds

## Area

1 Hectare = 10000 square meters = 2.471 acres = 0.00386 square miles  
1 Acre = 43560 square feet = 0.4047 hectares  
1 square foot = 0.0929 square meters  
1 square kilometer = 0.386 square miles  
1 square mile = 2.59 square kilometers = 259.0 hectares

## Velocity

1 knot = 1 nautical mile per hour = 1.151 statute miles per hour = 1.69 feet per second  
1 knot = 1.852 kilometers per hour  
1 kilometer per hour = 0.63127 statute miles per hour = 0.54 nautical miles per hour  
1 foot per second = 0.593 knots  
1 meter per second = 1.94 knots

## Pressure

1 pascal = 1 newton per square meter  
1 pound per square inch = 6895 pascals = 0.068 bars  
1 kilogram per square meter = 0.206 pounds per square foot  
1 bar = 14.7 pounds per square inch = 100000 pascals

## Temperature

(Degrees Fahrenheit - 32) x 5/9 = Degrees Celsius  
(Degrees Celsius x 9/5) + 32 = Degrees Fahrenheit

## Other Miscellaneous

1 horse power = 745 Watts = 0.75 kilowatts  
1 pound per cubic foot = 0.0259 grams per cubic centimeter  
7.0 barrels (nominal fresh) crude oil = 1 metric ton crude oil  
1 barrel (nominal fresh) crude oil = 0.1428 metric tons crude oil (nominal fresh)  
Density of Water = 8.34 pounds per gallon  
1 Pound force = 4.448 Newtons

**VITUS MARINE, LLC.**

**CHARTERED TANKER CPLAN PART I  
Sections 1.1, 1.2, and 1.3**

**Document Control Sheet**

Originators: Mark Smith

<i>Approved by Dept.</i>	<i>Name</i>	<i>Signature</i>	<i>Date</i>
Vessel Ops.	Mark Smith		

Change Record

<i>Revision#</i>	<i>Date</i>	<i>Approved by:</i>	<i>Description of Change</i>

Distribution List

Tanker C-Plans  
Anchorage Office  
ADEC  
ADF&G  
ADNR  
CRSAs

Special Instructions

# 1.1 EMERGENCY ACTION CHECKLIST

The safety of vessel and crew is the most important priority and consideration!

## 1.1.1 TANK VESSEL EMERGENCY ACTION CHECKLIST

By:	Date	Time	<b>SAFETY</b>
<b>Spill Observer</b>			Evacuate yourself and others from immediate spill area. <u>Only if you are qualified and it is safe to do so</u> , isolate electrical equipment to prevent potential fires or explosions, stop the further discharge of oil by shutting down equipment, closing valves, etc. Immediately Notify Master.
<b>Master</b>			Account for all personnel, sound vessel alarm, establish safety perimeter to ensure their safety. Request medical or other assistance. Make provisions for first aid. Notify other vessels in area and dock side personnel and facilities if safety risks exist.
			Consider repositioning the tank vessel to an area that provides natural containment of spill and minimizes migration of oil (Inlets and bays) if in nearshore environment, or further offshore if in open water.
			<b><u>NOTIFICATIONS FROM THE VESSEL</u></b> Notify the Qualified Individual/Incident Commander or Vitus Marine rep. listed below. <i>If a QI or company rep. is not contacted, the Master <b>must</b> immediately notify the NRC and ADEC. See Figure 1.2-1 Spill Notification and Reporting Flow Chart.</i> <ul style="list-style-type: none"> <li>• Mark Smith, QI, 907-278-6700, 907-351-9745 (C), 907-336-2006 (H)</li> <li>• Stacey Smith, ALT. QI, 907-278-6700 (O), 907-717-9377 (C)</li> </ul>
			Notify the Escort Vessel and request assistance if needed.
<b>C. Mate</b>			<b><u>DAMAGE AND STABILITY CALCULATIONS</u></b> Evaluate damage and provide initial stability calculations. Communicate this information to salvage contractor identified in the vessel Response Plan for additional assistance with stability and salvage.

## 1.1.2 SHORESIDE EMERGENCY ACTION CHECKLIST

By:	Date	Time	INITIAL NOTIFICATIONS from Shoreside
Q/I/C			<p><b>National Response Center (NRC) 800 424-8802 (Verbal report, record Spill No., then complete spill report form in <u>Figure 1.2-2</u>, send to NRC)</b>            NRC will notify FOSC (USCG for marine zones and for rivers up to extent of tide plus 1000ft, USEPA for rivers down to extent of tide minus 1000ft). FOSC will make contact with person identified during notification. <u>See Table 1.2-2 VML Notification Checklist.</u></p>
			<p><b>ADEC (verbal report to Anchorage or Fairbanks, immediately followed by sending completed Spill Report Form in <u>Figure 1.2-2</u> and fax to ADEC).</b>            Anchorage tel 907-269-3063, fax 907-269-7648 (Central AK)            Fairbanks tel 907-451-2121, fax 907-451-2362 (Northern AK)            After hours AK State Troopers: 800 478-9300</p>
			<p><b>Alaska Chadux, (Response Contractor) 907-348-2365 or 888-831-3438</b></p>
			<p><b>INITIAL ACTIONS</b></p>
			<p>Receive information from Master on spill volumes, oil movement, local conditions and need for additional shore or vessel response. Relay information to response contractor. <u>See Figure 1.2-3 Alaska Chadux Corp. – Notification and Mobilization Information.</u></p>
			<p>Mobilize Response Contractor (PRAC/OSRO) <u>See Figure 1.2-4 Alaska Chadux Request for Response Resources.</u></p>
			<p>Activate Salvage and Marine Firefighting Resource Provider, if necessary. (Section 1.2)</p>
			<p>Activate additional Vitus Marine response if needed. <u>See Table 1.2-2 VML Notification Table.</u></p>
			<p>Assemble incident command system. <u>See Figure 3.1-1 Incident Command Organization Chart.</u></p>
			<p>Implement Unified Command Structure. Coordinate with USCG/USEPA FOSC, and ADEC SOSC. <u>See Figure 3.1-1 Incident Command Organization Chart.</u></p>
			<p><i>Confirm Notifications have been made</i></p>

## 1.2 REPORTING AND NOTIFICATION

### 1.2.1 COMPANY SPILL REPORTING AND NOTIFICATION POLICY

In the event of a potential life, medical, security, or other safety hazard requiring immediate emergency attention, first contact the closest port-of-call (See Local Contacts, Table 1.2) and/or Coast Guard station on Channel 16 VHF.

When **any discharge of any quantity** of oil or hazardous substance from a vessel covered under this plan occurs, **IMMEDIATELY** notify a designated Qualified Individual (contact information in Figure 1.2-1). The QI will make or delegate federal and state reporting and company notifications in accordance with Table 1.2-1 and Figure 1.2-1. The QI will coordinate the shore-based response and has authority to activate Response Contractors.

**If you are unable to contact a QI, you must report oil spills to the USCG NRC and the ADEC in accordance with Section 1.2.3.** You will be issued a Spill Number from the NRC and ADEC. Note those numbers on your report.

### 1.2.2 STATE AND FEDERAL SPILL REPORTING REQUIREMENTS

**TABLE 1.2-1  
SUMMARY OF STATE OF ALASKA  
AND FEDERAL OIL SPILL REPORTING REQUIREMENTS**

AGENCY	SPILL AMOUNT/LOCATION	VERBAL REPORT	WRITTEN REPORT
ADEC	<i>Spills to State Waters (Any surface waters including marine to 3 mile limit)</i>		
	<b><u>Any Amount</u></b>	<b><u>Immediately</u></b>	Within 15 days
ADEC	<i>On Land Outside of Secondary Containment Areas</i>		
	<b><u>&gt;55 gallons</u></b>	<b><u>Immediately</u></b>	Within 15 days
	10-55 gallons	Within 48 hours	Within 15 days
	<10 gallons	N/A	Once/month
ADEC	<i>On Land Within Secondary Containment Areas</i>		
	>55 gallons	Within 48 hours	Within 15 days
ADEC	<i>Hazardous Substance Spill</i>		
	<b><u>(Other than Oil) Any Amount</u></b>	<b><u>Immediately</u></b>	Within 15 days
USCG/ USEPA	<i>Oil or Hazardous Substance Spill</i>		
	<b><u>Any threat or actual discharge of oil to coastal and inland waters.</u></b>	<b><u>Immediately</u></b>	Within 60 days, follow CFR 112

### 1.2.3 SPILL REPORTING PROCEDURES

Figure 1.2-1 depicts initial and immediate spill report procedures for the vessel personnel and the Qualified Individual. It is understood that not all the relevant information may be known at the initial time of reporting. **Report only what is known, do not guess or speculate.** An update to each federal and state agency can be submitted, as more information is available.

At a minimum, the following information should be reported initially:

1. Vessel(s) name and location
2. Date and time of event
3. Nature of event (include injury data)
4. Numbers of persons on board
5. Estimate amount of discharge
6. Actions planned
7. Radio frequency/phone number monitored

#### Contact Methods

The preferred methods of reporting and notification from a vessel are, in order of preference:

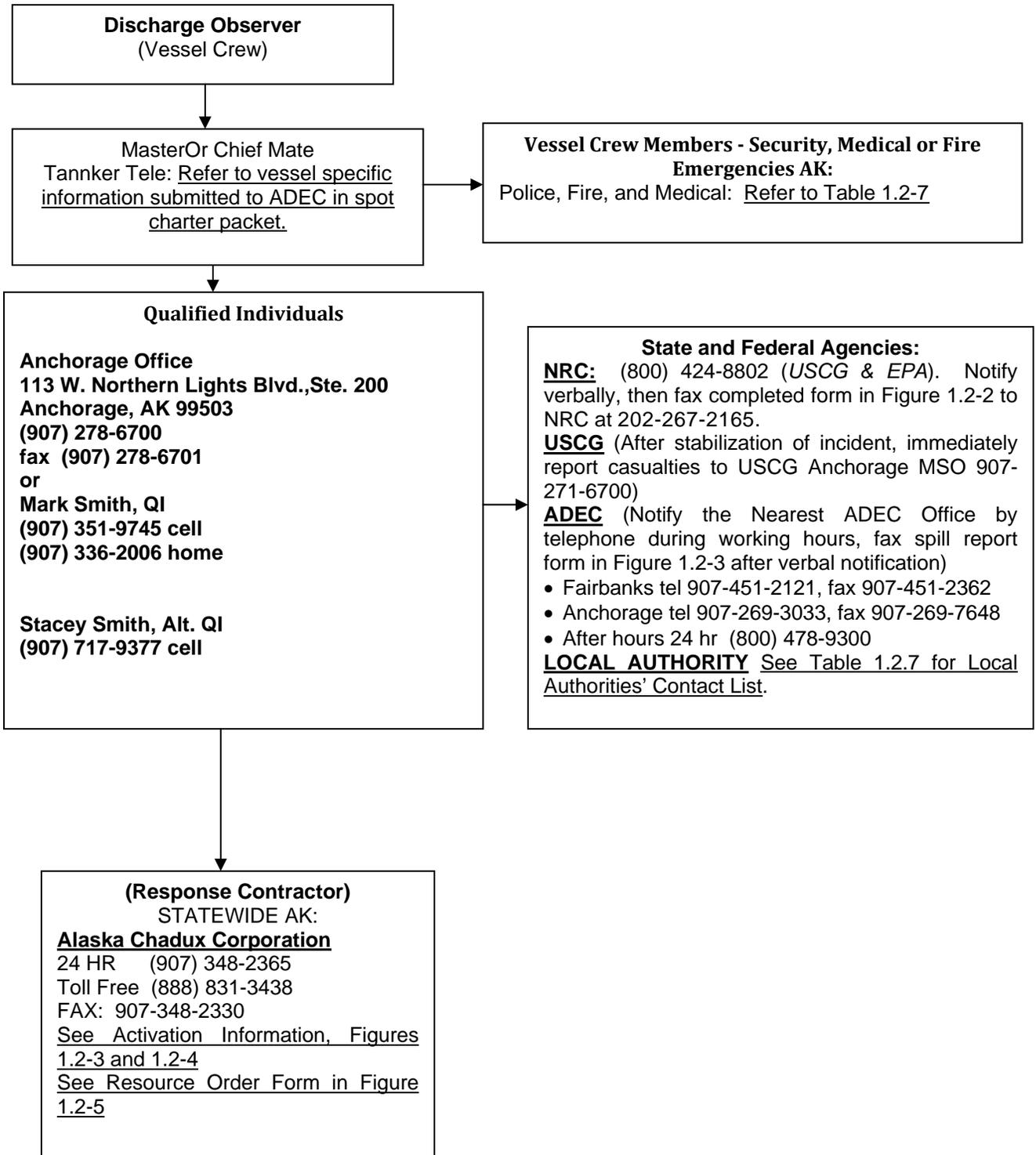
1. Direct satellite telephone, cellular, or land-based telephone.
2. Direct fax transmission.
3. VHF radio access to land based telephone by Marine Operator.
4. Direct VHF contact to VML land based VHF station.
5. Relay to any of the above methods through any other available vessel or land station.

VML chartered tankers have satellite telephones and VHF radios on board. Other vessels may be used as relays. See vessel call signs and frequencies in Section 1.4.4.

Agree on a communication schedule during the initial report. Relay all necessary information to set the appropriate level of response in motion during the initial conversation with the VML QI as it is possible that the tug may lose the radio/phone connection after the initial contact. Agree on a fallback schedule (half past each hour, 45 minutes after the hour, etc.) to ensure a communication plan exists in the event communication is not possible at the next scheduled time.

The QI or spill manager will initiate communications with the representative of each agency who will be in the Unified Command Structure. See Section 3.3.2 for duties of the QI.

**FIGURE 1.2-1  
SPILL NOTIFICATION AND REPORTING FLOW CHART**



**TABLE 1.2-2  
VML NOTIFICATION CHECKLIST**

<u>NAME</u>	<u>POSITION</u>	<u>OFFICE (907)</u>	<u>HOME (907)</u>	<u>CELL (907)</u>	<u>FAX (907)</u>	<u>TIME CALLED</u>
Mark Smith	QI/IC/Planning	278-6700	336-2006	351-9745	278-6701	
Stacey Smith	Alt. QI /Alt. IC/ Safety, Marine Ops, Info.	278-6700		717-9377	278-6701	
Michail Shestakov	Liaison/Logistics	278-6700	243-9399	301-4774	278-6701	
Master	TUG-CAVEK	239-628-3750		444-6152		
Master	TUG-NANIQ	239-628-3753		444-6199		
<b>Agency</b>	<b>Contact Name</b>	<b>Case No.</b>	<b>Comments</b>		<b>Time Called</b>	
<b>USCG - USEPA National Response Center</b> 800 424-8802						
<b>ADEC</b> 24 Hour Number 800 478-9300						
Fairbanks 907 451-2121						
Anchorage 907 269-3063						
<b>LOCAL AUTH</b> <u>See Table 1.2-7 List of Local Authorities</u>						
<b>RESPONSE CONTRACTORS</b> (QI & Alt QIs authorized to activate)	<b>Contact Name</b>	<b>Response Requested</b>		<b>Time of Call</b>		
<b>Alaska Chadux</b> (Statewide) 907 348-2365 888-831-3438 <u>See Figures 1.2-3 and 1.2-4</u>						

**FIGURE 1.2-2 OIL SPILL REPORT FORM FOR NRC**

Date / Time Spill occurred:	Date / Time knowledge of spill	Name of/ Date / Time QI Notified	
Person Reporting Spill:		Title	Phone
Responsible Party and Other Party(s) Involved In The Discharge / Incident:			
Name:		Official No.:	Type:
Country of registry: USA	Length:	Breadth:	Draft:
Speed:	Course:	Intended track:	
Call Sign:	Radio Station(s) and frequencies/phone guarded:		
Date/Time next report to FOSC/COTP:			
Location of Spill (Lat. & Long, bearing, river mile, distance from landmark, nearest village, etc.)			
Type & quantity of all cargo/bunkers onboard:	Spilled Product name: Quantity Spilled: Quantity Recovered:		Slick size and appearance
Details/Cause of spill:			Is spill Continuing?
Describe assistance needed:			
Condition of the vessel(s) (seaworthiness, damage, stability, stress)			
Weather at Site – General Description (rain, snow, cloudy, ice, visibility, temperature)			
Wind Speed/ Direction	Sea Conditions	Tides/Currents	
Immediate Actions Taken (include: stop the discharge, recovery, cleanup)			
Sensitive areas impacted/ threatened: (habitats/wildlife/water intakes/commercial or subsistence fishing/public use areas etc.)			
Number of crew on-board: (follow-up with USCG form CG-2692)	Personal Injuries:	Fatalities:	
Property Damages: (follow-up with USCG form CG-2692A)			
Names of other companies/individuals involved in cleanup:			
Disposal: (where? how much? dirt, sorbents, oil/water, boom)			
Corrective Actions Needed/Taken:			
Owner/Operator Details: PI Club Contact Details:			
USCG Spill No. **			
<b>Name</b>			

FIGURE 1.2-3 OIL SPILL REPORT FORM FOR ADEC



ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
**OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION FORM**

ADEC USE ONLY

ADEC SPILL #:		ADEC FILE #:		ADEC LC:	
PERSON REPORTING:		PHONE NUMBER:		REPORTED HOW? (ADEC USE ONLY) <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> Troopers	
DATE/TIME OF SPILL:		DATE/TIME DISCOVERED:		DATE/TIME REPORTED:	
INCIDENT LOCATION/ADDRESS:		DATUM: <input type="checkbox"/> NAD27 <input type="checkbox"/> NAD83 <input type="checkbox"/> WGS84 <input type="checkbox"/> Other _____		PRODUCT SPILLED:	
		LAT. _____			
		LONG. _____			
QUANTITY SPILLED: <input type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY CONTAINED: <input type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY RECOVERED: <input type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY DISPOSED: <input type="checkbox"/> gallons <input type="checkbox"/> pounds		
POTENTIAL RESPONSIBLE PARTY:		OTHER PRP, IF ANY:		VESSEL NAME:	
Name/Business:				VESSEL NUMBER:	
Mailing Address:					
Contact Name:					
Contact Number:				> 400 GROSS TON VESSEL: <input type="checkbox"/> Yes <input type="checkbox"/> No	
SOURCE OF SPILL:				CAUSE CLASSIFICATION:	
CAUSE OF SPILL:		<input type="checkbox"/> Under Investigation		<input type="checkbox"/> Accident <input type="checkbox"/> Human Factors <input type="checkbox"/> Structural/Mechanical <input type="checkbox"/> Other	
CLEANUP ACTIONS:					
DISPOSAL METHODS AND LOCATION:					
AFFECTED AREA SIZE:	SURFACE TYPE: (gravel, asphalt, name of river etc.)	RESOURCES AFFECTED/THREATENED: (Water sources, wildlife, wells, etc.)			
COMMENTS:					

ADEC USE ONLY

SPILL NAME:		NAME OF DEC STAFF RESPONDING:		C-PLAN MGR NOTIFIED? <input type="checkbox"/> Yes <input type="checkbox"/> No	
DEC RESPONSE: <input type="checkbox"/> Phone follow-up <input type="checkbox"/> Field visit <input type="checkbox"/> Took Report		CASELOAD CODE: <input type="checkbox"/> First and Final <input type="checkbox"/> Open/No LC <input type="checkbox"/> LC Assigned		CLEANUP CLOSURE ACTION: <input type="checkbox"/> NFA <input type="checkbox"/> Monitoring <input type="checkbox"/> Transferred to CS or STP	
COMMENTS:		Status of Case: <input type="checkbox"/> Open <input type="checkbox"/> Closed		DATE CASE CLOSED:	
REPORT PREPARED BY:				DATE:	

Revised 2/5/2008

**FIGURE 1.2-4  
ALASKA CHADUX CORP NOTIFICATION AND MOBILIZATION INFORMATION**

**TO MOBILIZE CHADUX:**

- STEP 1:** Conduct initial NRC and ADEC notifications
- STEP 2:** Notify Alaska Chadux and complete Initial Incident Assessment Report
- STEP 3:** Complete Request for Response Resources located in Figure 1.2-4 and Fax to Alaska Chadux. Complete Initial Resource Order – ICS 222 located in Figure 1.2-5 and fax to Alaska Chadux
- STEP 4:** Coordinate Initial resource needs with Alaska Chadux Representative, submit additional resource order to Alaska Chadux, as needed.
- STEP 5:** Alaska Chadux Resources are mobilized.

**KEY INFORMATION FOR CHADUX NOTIFICATION AND CALLOUT**

- Contact Information/Schedule (Name, Telephone, cellular, pager, fax, radio)
- Time Spill Discovered (24 hour clock)
- Spill Source (facility, vessel, pipeline, other)
- Spill Location (name on map, latitude and longitude if known)
- Product Released (diesel, gasoline, jet fuel, etc)
- Spill Volume (how much? 1 barrel, tank truck, etc)
- Area Covered (deck or dock, cove, square feet, square miles)
- Rate of Release (drip, spray, hole, rupture, release controlled)
- Safety Concerns (hazardous cargo, air monitoring, weather, others)
- Sensitive Area Affected or Threatened (stream, town site, water supply, etc)
- Weather Conditions (temp, wind speed, wind chill, visibility)
- Direction of Spill Movement (off site, into stream, etc.)
- Location of nearest access point to the spill (village, airstrip, access limitations)
- Personnel and equipment on scene (amount, boom, pumps, etc.)
- Resources needed (labor, containment, recovery, storage, wildlife, etc)
- Services needed (spill management, wildlife, other, etc.)

**FIGURE 1.2-5**

**ALASKA CHADUX CORPORATION  
REQUEST FOR RESPONSE RESOURCES – FAX COMPLETE FORM TO 907-348-2330  
MEMBER RESPONSE ACTION CONTRACT (ATTACHEMENT A)**

The purpose of this Attachment is to:

- Confirm member's request for resources during an actual spill response; and,
- To identify the member representative(s) who is (are) authorized to:
  - Approve Member's request for Response Resources and
  - Bind and commit member for all costs to provide Response Resources

1. Incident Information:

a. Incident Name: \_\_\_\_\_  
b. Incident Location: \_\_\_\_\_

2. Response Resources being requested:

- Chadux Oil Spill Equipment
- Chadux Oil Spill Supplies and Materials
- Chadux Oil Spill Response Services (response management services, labor, wildlife, logistics, etc)

3. Identification of Member Representative(s) authorized to order Alaska Chadux Response Resources on this incident:

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Phone Numbers:  
*Office:* \_\_\_\_\_  
*Cellular:* \_\_\_\_\_  
*Other:* \_\_\_\_\_  
*Pager:* \_\_\_\_\_

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Phone Numbers:  
*Office:* \_\_\_\_\_  
*Cellular:* \_\_\_\_\_  
*Other:* \_\_\_\_\_  
*Pager:* \_\_\_\_\_

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Phone Numbers:  
*Office:* \_\_\_\_\_  
*Cellular:* \_\_\_\_\_  
*Other:* \_\_\_\_\_  
*Pager:* \_\_\_\_\_

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Phone Numbers:  
*Office:* \_\_\_\_\_  
*Cellular:* \_\_\_\_\_  
*Other:* \_\_\_\_\_  
*Pager:* \_\_\_\_\_

The undersigned is authorized to act on Member's behalf and make the forgoing representations:

Company Name: Vitus Marine, LLC.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

Time: \_\_\_\_\_

**FIGURE 1.2-6 ALASKA CHADUX CORPORATION - RESOURCES ORDER FORM (ICS 222)**

Incident Name				Date/Time:				Resource Order #: ACC-			
Requested By:			Position:			Order Taken By:			<input type="checkbox"/> Personnel <input checked="" type="checkbox"/> Equipment <input type="checkbox"/> Materials		
Requester Contact No's.			Or			<b>PERSONNEL, EQUIPMENT &amp; MATERIALS MUST BE ORDERED ON SEPARATE FORMS</b>					
Item #	Action By SAM IMT	Qty.	Resource Requested	Delivery Point Location	Date/Time Needed	ETA	Rcv'd	Cost	Vendor Name	Vendor Phone #	Purchase Order #
1											
2											
3											
4											
5											
6											
7											
Additional Comments:											
Logistics-Supply Unit Leader:						Date Prepared:					

Send a copy to:  
 Staging Area Manager  
 Resource Unit Leader  
 Finance  
 Documentation

## **1.2.4 ADDITIONAL SPILL NOTIFICATIONS**

Notification is the contact made to activate additional response resources and to communication with additional parties identified in this Plan. These notifications, unlike reporting, are made at the discretion of the QI and Master/PIC.

Additional contact reference lists are contained in:

- Alaska Chadux Corp Response Manual, Annex 1 and Sub Area Annexes (Appendix H)
- Alaska Unified Plan (Appendix A) and Sub Area Plans (Appendix B)

### **1.2.4.1 DAMAGE STABILITY ASSESSMENT AND SALVAGE CONTRACTORS**

Each vessel, as required by law, has required damage stability data, engineering drawings, and specifications including tank tables. Refer to spot charter submittal for the specific vessel. A visual inspection of the tanker from the navigation bridge is done to identify the source of a discharge or list. The Master/PIC will review vessel drawings and identify the damaged tanks and cargo type. If safety considerations allow, crew will perform tank soundings. Those readings will be compared to the cargo load plan to determine loss/gain of cargo, if any. Based on initial estimates of the location of the damaged cargo tanks and an estimate of tank volumes, the Master will report to the Company QI (See Table 1.2-2 for contact information) and an action plan developed. An initial stability report will be prepared by the vessel crew. Additionally, prior to any lightering or salvage operations a stability report performed by the salvage provider or marine architect under contract to the tanker will be performed.

Contact management as soon as possible to assist in evaluating vessel safety, operations, and salvage issues.

Chartered Tankers will have contract in place with a contractor to provide the salvage and marine firefighting services required by USCG regulation. A copy of the contract can be found in the vessels USCG Vessel Response Plan.

**TABLE 1.2-3  
OTHER BARGE AND TOWBOAT COMPANIES  
(Not under contract)**

Company	Location	Telephone / Radio	Facsimile
Northland Services	Seattle	(800) 426-3113 or (206) 763-3000	
	Anchorage	(907) 276-4030	(907) 276-8733
	Fairbanks	(907) 456-1106	(907) 452-6993
	Bethel	(907) 543-4649	(907) 543-4640
	Dillingham	(907) 842-5516	(907) 581-3235
	Dutch Harbor	(907) 581-6077	(907) 581-3235
	Naknek	Office (907) 246-6667 Radio WHU 798 Warehouse (907) 246-7431	(907) 246-6855  (907) 246-6136
	Nome	(907) 443-5738 Radio WQB 340	(907) 443-5424
Crowley Marine Services	Seattle	(206) 332-8000 (800) 248-8632	(206) 332-8300
	Anchorage	(907) 278-4978	(907) 257-2828
	Florida, 24 hr Emergency No.	(954) 929-5200 (24 Hours)	(954) 929-0102
Dunlap Towing Company	24 Hr. dispatch Everett office	(800) 476-3114 (425) 259-4163	(206) 466-3116
	LaConner office	(360) 466.3114	
Western Towboat Company	Seattle 24 Hr. Location	(206) 789 9000	(206) 789-9755
Foss Maritime Company	Toll free	800-426-2885	
Ruby Marine	Nenana	(907) 832-1062	(907) 832-1063
Sirius Maritime	Seattle	(206) 267-1540	(206) 267-1549
Sea Coast Towing	Seattle	(800) 732-8099 24 hours (206) 443-9418	(206) 343-0424
	Anchorage	(907) 276-2725	
Samson Tug and Barge	Seattle	800-331-3522	
	Dutch Harbor	907-581-4077.	

**TABLE 1.2-4  
POTENTIAL SALVAGE OPERATORS  
(Not Under Contract)**

Company	Location	Telephone / Radio	Facsimile
American Marine Inc.	Anchorage	(907) 562-5420	907) 562-5426
Crowley Marine Services	Seattle	800-248-8632	(206) 332-8300
Magone Marine	Unalaska	(907) 581-1400	(907) 581-1495
Foss Maritime	Seattle	800.426.2885 (206) 281-3800	
Global Diving & Salvage	Seattle	(206)-623-0621 (24 hr) 800-441-3483	(206) 932-9036
Offshore Divers	Anchorage	907-563-9060	
See Also Subarea Contingency Plans Section B for additional salvage operators.			

#### 1.2.4.2 OIL SPILL RESPONSE EQUIPMENT CACHES

**TABLE 1.2-5  
NON-VML COMPANIES AND ORGANIZATIONS IN OPERATIONAL AREA  
WITH OIL RESPONSE EQUIPMENT  
(Not Under Contract)**

Company	Location	Telephone / Radio	Facsimile
Delta Western Facility	Dillingham	(907) 842-5441 VHF Channel 69 & 16 SSB Monitor, (summer only) Frequency 4125	(907) 842-2697
Bristol Alliance Fuels Facility	Dillingham	(907) 842-1234 VHF 88A	(907) 842-5955
Pacific Fishing Assets	Aleknagik	(907) 868-8064	(907) 278-6701
Delta Western Facility	Naknek	(907) 246-6174 (office) or (907) 246-6007 (dock)	(907) 246-6843

### 1.2.4.3 FEDERAL AND STATE AGENCIES

**TABLE 1.2-6  
LIST OF FEDERAL AND STATE AGENCIES**

Federal Agency	Location	Telephone	Facsimile
USCG - USEPA National Response Center		(800) 424-8802	
USCG – VHF Radio	All Areas	VHF Channel 16 (156.8 MHz)	
USCG – HF/SSB Radio	All Areas	HF-SSB 4125 and 2182 MHz	
USGC MSO	Anchorage	(907) 271-6700	
USGC MSO	Valdez	(907) 835-7210	
USGC MSO	Juneau	(907) 463-2000	
USCG Emergency, Casualties	Interior, Western, and Bristol Bay, AK	(907) 271-6700	
USEPA	Anchorage	(907) 271-5083	
USEPA	Seattle (24 hr)	(206) 553-1263	
NOAA Scientific Support Coordinator	Anchorage	(907) 253-3593 (206) 526-6317 (24 hr)	
US DOI--NRDA Pamela Bergman	Anchorage	(907) 271-5011	(907) 271-4102
CHEMTREC	Nationwide Emergency	(800) 424-9300	
U.S. Fish & Wildlife Service, Main Office	Anchorage Main Office	(907) 786-3309	(907) 786-3495
US Fish and Wildlife Service, Alaska Maritime National Wildlife Refuge	Homer	(907) 235-6546	(907) 235-7783
US Fish and Wildlife Service, National Wildlife Refuge, Yukon Flats NWR	Fairbanks	(907) 456-0440	(907) 456-0447
US Fish and Wildlife Service, National Wildlife Refuge, Innoko NWR	McGrath	(907) 524-3251	(907) 524-3141
US Fish and Wildlife Service, National Wildlife Refuge, Kanuti NWR	Fairbanks	(907) 456-0329	(907) 456-0428
US Fish and Wildlife Service, National Wildlife Refuge, Yukon Delta NWR	Bethel	(907) 543 3151	(907) 543 4413

US Fish and Wildlife Service, National Wildlife Refuge, Koyukuk NWR	Galena	(907) 656-1231	(907) 656-1708
US Fish and Wildlife Service, National Wildlife Refuge, Nowitna NWR	Galena	(907) 656-1231	(907) 656-1708
US Fish and Wildlife Service, National Wildlife Refuge, Izembek NWR	Cold Bay	(907) 532 2445	(907) 532 2549
US Fish and Wildlife Service, National Wildlife Refuge, Togiak NWR	Dillingham	(907) 842 1063	(907) 842 5402
US Fish and Wildlife Service, National Wildlife Refuge, Alaska Peninsula and Becharof NWR	King Salmon	(907) 246 3339	(907) 246 6696
<b>State Agency</b>	<b>Location</b>	<b>Telephone</b>	<b>Facsimile</b>
ADEC	24 Hour Number	(800) 478-9300	
	Anchorage	(907) 269-3063	
	Valdez	(907) 835-4698	
	Fairbanks	(907) 451-2121	
	Juneau	(907) 465-5340	
	IPP, Marine Vessel Section	(907) 269-3094	
ADF&G	Anchorage - Valerie Blajeski	(907) 267-2300	(907) 267-2464
	Fairbanks, Todd Nichols	(907) 459-7363	(907) 459-7347
ADNR	Anchorage	(907) 269-8548	
ADNR, History/Archeology	Anchorage	(907) 269-8721	
AK Div. of Homeland Security and Emergency Management	Anchorage Emergency Coordination Center	(907) 428-7000	

### 1.2.4.4 LOCAL AUTHORITIES

(Land owners, LEPCs, Native Corporations, Fishermen's Associations, Aquaculture facilities, Seafood Processors, Citizen's Advisory Councils, and Coastal Resource Service Areas)

**TABLE 1.2-7  
LIST OF LOCAL AUTHORITIES**

<b>Yukon River &amp; Tributaries</b>			
<b>Location</b>	<b>Department</b>	<b>Phone Numbers</b>	<b>Fax Numbers</b>
Nenana	Emergencies	911	(907) 832-5425
	Fire and Medical	(907) 832-5632	
	Police	(907) 832-5448	
	State Troopers	(907) 832-5554	
	City	(907) 832-5441	
	Clinic	(907) 832-5247	
	Mayors Office	(907) 832-5501	
Delta Junction	State Troopers	(907) 895-4800	(907) 895-4026
Fairbanks	State Troopers	(907) 451-5100	(907) 451-5317
	Police	(907) 459-6500	
	Hospital	(907) 452-8181	
Tanana	Police	(907) 366-7158	(907) 366-7169
Rampart	Village council	(907) 358-3312	
Stevens Village	Village council	(907) 478-7228	
	Police	(907) 478-7911	
Fort Yukon	Police	(907) 662-2311	
Ruby	Public safety	(907) 468-4603	
	Village Tribal Council	(907) 468-4502	
Galena	Public safety	(907) 656-2177	(907) 656-1530
	State Troopers	(907) 656-1233	
Koyukuk	Village Council	(907) 927-2253	
Huslia	City Council	(907) 829-2266	(907) 829-2224
	Village Council	(907) 829-2294	(907) 829-2214
Nulato	Public safety	(907) 898-2290	(907) 898-2207
	Village Council	(907) 898-2339	
Kaltag	City	(907) 534-2301	(907) 534-2236
Grayling	City	(907) 453-5148	(907) 453-5223
Anvik	City	(907) 663-6328	(907) 663-6321
Holy Cross	City	(907) 476-7139	(907) 476-7141
Russian Mission	Police	(907) 584-5626	
Marshal/Fortuna Ledge	Police	(907) 679-6706	
Pilot Station	Police	(907) 549-3213	
St. Mary's	Police	(907) 438-2911	
	State Troopers	(907) 438-2019	
Mountain Village	Police	(907) 591-2921	
Emmonak	Fire and police	(907) 949-1728	
Alakanuk	Police	(907) 238-3421	
Sheldons Pnt/Nunam Iqua	Police	(907) 498-4911	(907) 498-4250
	City	(907) 498-4226	
Kotlik	Police	(907) 899-4626	
<b>Kuskokwim River &amp; Tributaries</b>			
<b>Location</b>	<b>Department</b>	<b>Phone Numbers</b>	<b>Fax Numbers</b>

Quinhagak	Police	(907) 556-8314	
Kongiganak	Traditional Council Police	(907) 557-5226 (907) 557-5607	
Tuntutuliak	Police / Fire	(907) 256-2634	
Napakiak	City	(907) 589-2920 (907) 589-2611	(907) 589-2612
Bethel	City Police Police – State Troopers Bethel Hospital Fire Dept.	(907) 543 2047 (907) 543 3781 (907) 543-2294 (907) 543 6000 (907) 543-2131	(907) 543 4171 (907) 543 5086 (907) 543-5102 (907) 543-2702
Kwethluk	Police	(907) 757-6629	
Akiachak	Police	(907) 825-4313	
Akiak	Police City	(907) 765-7914 (907) 765-7411	(907) 765-7512
Tuluksak	Clinic IRA Council Police	(907) 695-6991 (907) 695-6420 (907) 695-6000	
Lower Kalskag	City	(907) 471-2228	
Aniak	City State Troopers	(907) 675-4481 (907) 675-4398	(907) 675-4486 (907) 675-4498
Chuathbaluk	Public Safety	(907) 467-4219	
Red Devil	Traditional Council	(907) 447-3223	
Sleetmute	Village Council	(907) 449-4205	
Stony River	Village Contact	(907) 537-3253	
McGrath	Emergency State Troopers City	911 (907) 524-3052 (907) 524-3825	(907) 524-3053 (907) 524-3536
Nikolai	City Village Council	(907) 293-2113 (907) 293-2311	
<b>Kuskokwim Coast</b>			
<b>Location</b>	<b>Department</b>	<b>Phone Numbers</b>	<b>Fax Numbers</b>
Newtok	Traditional Council Clinic	(907) 237-2314 (907) 237-2111	
Tununak	Public Safety Clinic	(907) 652-6812 (907) 652-6829	
Nightmute	City Clinic	(907) 647-6436 (907) 647-6312	(907) 647-6427
Toksook Bay	Public Safety City Clinic Traditional Council	(907) 427-7313 (907) 427-7613 (907) 427-7810 (907) 427-7114	
Chefornak	City Council Public Safety Clinic	(907) 867-8147 (907) 867-8733 (907) 867-8919	
Kipnuk	Traditional Council Police/Fire clinic	(907) 896-5414 (907) 896-5515 (907) 896-5927	
Kwigillingok	Traditional Council Public Safety Clinic	(907) 588-8112 (907) 588-8329 (907) 588-8813	
Eek	City Public Safety Clinic	(907) 536-5129 (907) 536-5328 (907) 536-5314	(907) 536-5711

Goodnews Bay	City Public Safety clinic	(907) 967-8614 (907) 967-8050 (907) 967-8128	
<b>AK Peninsula, Aleutians &amp; Bristol Bay</b>			
<b>Location</b>	<b>Department</b>	<b>Phone Numbers</b>	<b>Fax Numbers</b>
False Pass	City Clinic	(907) 548-2319 (907) 548 2742	(907) 548-2214
Unalaska/Dutch Harbor	City of Unalaska Police/Fire Port Office (DH) Hospital State Troopers	(907) 581 1251 (907) 581 1233 (907) 581 1254 (907) 581 1202 (907) 581-2742 (907) 581-1432	(907) 581-3664 (907) 581-5024 (907) 581 2519 (907) 581 2331 (907) 581-1407
Nome	Emergencies City Police Clinic	911 (907) 443-6663 (907) 443-5262 (907) 443-3311	(907) 443-5349  (907) 443-3139
Dillingham	Emergencies City Fire Dept. Port Office Police Hospital State Troopers	911 (907) 842 5211 (907) 842 2288 (907) 842 1069 (907) 842 5354 (907) 842 5201 (907) 842-5641	(907) 842 2060 (907) 842 5002 (907) 842 4049 (907) 842 5785 (907) 842 9354 (907) 842-5795
Naknek	City/Fire Dept. Port Office Police Hospital Borough Manager	(907) 246 4222 (907) 246 6168 (907) 246 4222 (907) 246-4214 (907) 246-4224	(907) 246 6633 (907) 246 3493 (907) 246 4451  (907) 246-6633
Nelson Lagoon	Village Council Clinic	(907) 989-2204 (907) 989-2207	
Port Heiden	City Clinic	(907) 837-2209 (907) 837-2208	(907) 837-2248
Egegik	City Village council Fire/Rescue Clinic	(907) 233-2400 (907) 233-2211 (907) 233-2202/2244 (907) 233-2229	(907) 233-2231
Togiak	City Police Clinic	(907) 493-5820 (907) 493-5212 (907) 493-5511	(907) 493-5932
<b>Northwest Arctic</b>			
Brevig Mission	City VPSO Clinic	(907) 642-3851 (907) 642-2270 (907) 642-4311	(907) 642-2194
Kotzebue	City Police Fire Clinic	(907) 442-3401 (907) 442-3351 (907) 442-3403 (907) 442-3321	(907) 442-3742
Nome	City Police Fire Hospital	(907) 443-3879 (907) 443-5262 (907) 443-2310 (907) 443-3311	(907) 443-5349

Teller	City VPSO Clinic	(907) 642-3401 (907) 642-3408 (907) 642-3311	(907) 642-2051
<b>Cook Inlet</b>			
Anchorage	City Police Fire State Troopers Hospital (Providence) Hospital (AK Regional) Hospital (AK Native)	(907) 343-7100 (907) 786-8500 (907) 267-4900 (907) 428-7200 (907) 562-2211 (907) 276-1131 (907) 729-1729	(907) 343-4499
Seward	City Police Fire State Troopers Hospital	(907) 224-3331 (907) 224-3338 (907) 224-3345 (907) 224-3346 (907) 224-5205	(907) 224-4038
Homer	City Police Fire State Troopers Hospital	(907) 235-8121 (907) 235-3150 (907) 235-3155 (907) 235-8239 (907) 235-8101	(907) 235-3140
Nikiski	Fire Hospital	(907) 776-8400 (907) 262-4404	

**TABLE 1.2-8  
LOCAL EMERGENCY PLANNING COMMITTEES (LEPCs)**

LEPC Group	Location	Phone Numbers	Fax Numbers
Aleutian & Pribilof Islands	Unalaska	(907) 581-1233	(907) 581-5024
Anchorage	Anchorage	(907) 343-1401	(907) 343-1441
Bristol Bay Borough	King Salmon	(907) 246-3421	(907) 246-6633
Delta Greely	Delta Junction	(907) 895-5115	(907) 895-5116
Denali Borough	Healy	(907) 683-1330	(907) 683-1340
Fairbanks	Fairbanks	(907) 450-6602	(907) 450-6666
Kenai Peninsula Borough	Soldotna	(907) 262-4910	(907) 714-2395
Nome	Nome	(907) 443-3404	(907) 443-3610
North Slope Borough	Barrow	(907) 852-0248	(907) 852-0356
Northwest Arctic	Kotzebue	(907) 442-2500	(907) 442-2930

(Because LEPC contacts change often, use the State Internet: <http://www.ak-prepared.com/>)

**TABLE 1.2-9  
ALASKA COASTAL ZONE PROGRAM COORDINATORS**

<b>Northwest Coastal Zone District</b>			
<b>Name</b>	<b>Location</b>	<b>Phone Numbers</b>	<b>Fax Numbers</b>
Bering Straits Coastal Coordinator	Juneau	(907) 465-3529	(907)-465-3075
Bethel Coastal Coordinator	Bethel	(907) 543-5301	(907) 543-2046
Cenaliuriiit CRSA Coastal Coordinator	Anchorage	(907) 346-2443	(907) 256-2441
Nome Coastal Coordinator	Nome	(907) 443-6604	(907) 443-5349
North Slope Coastal Coordinator	Barrow	(907) 852-0320	(907) 852-0322
Northwest Arctic Coastal Coordinator	Kotzebue	(907) 442-2500	(907) 442-2930
<b>Southwest Coastal Zone District</b>			
Aleutians East Coastal Coordinator	Sand Point	(907) 383-2699	(907) 383-3496
Aleutians West Coastal Coordinator	Palmer	(907) 745-6700	(907) 745-6711
Bristol Bay CRSA Coastal Coordinator	Dillingham	(907)-842-2666	(907)-842-2776
Bristol Bay CRSA Coastal Coordinator	Naknek	(907) 246-4224	(907) 246-6633
Kodiak Island Coastal Coordinator	Kodiak	(907) 486-9360	(907) 486-9396
Lake and Peninsula Coastal Coordinator	King Salmon	(907) 246-3421	(907) 246-6602

**TABLE 1.2-10  
FISHING GROUPS**

<b>Group</b>	<b>Organization</b>	<b>Location</b>	<b>Phone Numbers</b>	<b>Fax Numbers</b>
Statewide Fishermen's Group	United Fishermen of Alaska	Juneau, AK	907 586 2820	907-463-2545
	Alaska Crab Coalition	Seattle, WA	206 547 7560	206-547-0130
Westward Fishermen and Aquaculture Assoc.	Peninsula Marketing Assoc	Sand Point, Alaska	907 383-3600	907-383-5518
Bristol Bay Fishermen and Aquaculture Assoc.	Bristol Bay Driftnetters Assoc.	Seattle, WA Juneau, AK	206-285-1111 907-463-4970	
Yukon Kuskokwim Fishermen and Aquaculture Assoc.	Bering Sea Fishermen's Assoc.	Anchorage	907 279 6519	907-258-6688
	Kuskokwim Fishermen's Coop	Bethel	907 543 2410	

**FIGURE 1.2-7  
VML WALLET CARDS**

Wallet Cards will be distributed to all VML personnel

<p><b>Vitus Marine, LLC.</b></p> <p align="center"><b><u>Marine Oil Spill Checklist</u></b></p> <ul style="list-style-type: none"> <li>✓ Ensure safety of all personnel and public – notify police/fire if necessary</li> <li>✓ Rescue/Treat Injured Personnel</li> <li>✓ Prevent Fires &amp; Explosions – eliminate ignition sources in area</li> <li>✓ Assist with vessel safety/stability</li> <li>✓ Stop discharge if possible &amp; safe</li> <li>✓ Notify VML Qualified Individual. If Notification cannot be made, report spill to NRC and ADEC</li> <li>✓ Assess spill source, volume, cause, rate, and movement, relay info to QI</li> </ul> <p align="center"><i>See Contact Numbers – Reverse</i></p>	<p align="center"><b><u>Vitus Marine, LLC.</u></b></p> <p align="center"><b><u>Emergency Contact Numbers</u></b></p> <p>Tug : _____ Tele: _____</p> <p><b>Qualified Individuals</b></p> <p>Mark Smith: <b>(QI)</b> Office 907-278-6700, Cell 907-351-9745, Home 907-336-2006</p> <p>Stacey Smith: <b>(Alt.QI)</b> Office 907-278-6700, Cell 907-717-9377</p> <p><b>Fire, Police, Med Emergency – 911.</b> Refer to OSR plan for local contacts</p> <p><b>USCG NRC:</b> 800-424-8802 <b>USCG ANC MSO:</b> 907-271-6700</p> <p><b>ADEC:</b> 1-800-478-9300</p> <p><b>AK Chadux 24hr:</b> 907-348-2365</p>
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VML will ensure that each VML employee is provided with a copy of the wallet card and that senior officers onboard all VML chartered tank vessels will also be provided a copy of the wallet card.

## 1.3 SAFETY INFORMATION

Safety is the most important consideration and priority in the event of a discharge of oil. Petroleum discharges result in an inherent risk to personnel due to the dermal, eye, respiratory, and ingestion hazards. There is an additional fire and explosion hazard that presents a risk to both personnel and the vessel.

### 1.3.1 APPLICABLE FEDERAL AND STATE OCCUPATIONAL SAFETY STANDARDS

- 29 CFR Part 1910, Occupational Safety and Health Standards.
- 29 CFR Part 1904, Record Keeping and Reporting Occupational Illnesses
- 29 CFR Part 1910.120, Hazardous Waste Operations and Emergency Response.
- 29 CFR Part 1910.132 - 37, subpart 1, Personal Protective Equipment.
- 29 CFR Part 1910.38, Employee Emergency Action Plans and Fire Prevention Plan.
- 29 CFR Part 1910.1200, Hazard Communication Standards.
- State of Alaska Department of Occupational Safety and Health Regulations, 8 AAC 61

### 1.3.2 VESSEL SAFETY OFFICER

In the event of a spill, the Chief Mate (Lead) or the Master (Alternate) is responsible for the crew's safety and will act as the *Safety Officer*. The Safety Officer will ensure that all personnel involved in the cleanup are wearing the proper PPE and conduct the cleanup in a safe, effective manner. If there is any inclination of a dangerous situation, the Safety Officer has the authority to cease cleanup operations until the matter is resolved or deemed safe to recommence. The Safety Officer's responsibilities include, but are not limited to:

- Establishing a safety zone around the spill area to exclude unauthorized personnel. The perimeter of the safety zone will be well beyond the vapor, fire and explosion danger areas. The safety area will be determined by the Vessel Safety Officer taking into consideration the air monitoring results from the shipboard LEL/O<sup>2</sup> meter, atmospheric conditions, and topography.
- Enforcing a "NO SMOKING" rule in the safety zone. All response personnel will be advised of the safety zone, and the No Smoking rule prior to working or entering the safety zone.
- Removing or isolating other ignition sources near the spill, such as non-intrinsically safe electrical equipment.
- Monitoring and assessing hazardous and unsafe situations;
- Development of measures for assuring personnel safety and ensuring proper use of protective equipment;
- Correction of unsafe acts or conditions;
- Maintaining awareness of active and developing situations
- Development of the initial Site Safety Plan.
- See Section 3.3 for additional safety officer duties.

**The Safety Officer duties will be transferred to a VML or Chadux responder as soon as a qualified person is available onsite.**

### 1.3.3 SAFETY OF PERSONNEL

**In the event of a spill, warn all persons in the immediate area by verbal announcements, radio, or other means.** Personnel safety is the primary concern during spill response operations. Protecting the

environment is the next concern. If weather and sea conditions permit, then containment and recovery operations begin.

**Initiate evacuation of all non-essential personnel, vessels, or other equipment.**

- ❑ Evacuation will be signaled by the general alarm.
- ❑ Assembly point will be the pilot house on the tug unless directed otherwise.
- ❑ Be aware of potential hazards along the evacuation route (ruptured piping, spilled oil, vapor clouds, etc)
- ❑ Monitor wind direction and move upwind to prevent potential exposure to vapors, gases, or particulates. If it is not possible to move upwind, move at a 90-degree angle from the emergency.
- ❑ Conduct a roll call of personnel in the assembly area to assure that all personnel are accounted for. Identify all personnel who cannot be accounted for, and determine whether rescue efforts will be required. Call for emergency assistance as appropriate.

**Eliminate ignition sources**

All sources of ignition should be extinguished in the vicinity of a spill. Ignition sources include open flames, cigarettes, internal combustion engines, and other equipment that can potentially spark (use only intrinsically safe handheld radios).

**Determine product information: toxicity, flammability etc.**

Refer to **Material Safety Data Sheets** stored onboard the vessel. The information on the MSDS sheets is used to determine personnel hazards, fire hazards, and the extent of a safety zone for the spilled product. See J. 3 in Figure 1.3-1 regarding air monitoring.

**Establish Safety and Security Zone**

In the case of confined or continuous spills, flammable vapors will persist until the spill has been stopped or until considerable weathering has occurred. Under adverse or calm weather conditions, the flammable vapors may extend beyond the limits of the spill. Move mobile equipment out of the area. Do not start engines if heavy flammable vapor is present. Direct traffic away from the area.

If fire is present, employ fire-fighting procedures before attempting to contain or control the spill. See Section 1.6.2 of this plan for additional firefighting information. If fire is not present, position fire extinguishers and water hoses near the area of the spill. See 1.6.2 for number and location.

**Enforce personal protective equipment**

Using the Material Safety Data Sheet, advise and enforce the use of Personal Protective Equipment appropriate for the duties that will be performed by personnel at the site.

**Personal Protective equipment available on the tanker**

Each vessel has on board personal protective equipment (PPE) as required by SOLAS. Additional PPE is available through VML management, Alaska Chadux and vendors.

**Respiratory Protection Policy**

VML's Respiratory Protection Policy identifies the responsibilities of employees and management. The policy also identifies those positions (including welding or other work inside tanks, dipping tanks [near manholes], taking samples [near manholes], and transfer of benzene containing fuel) that require training or monitoring, to include benzene monitoring, fit testing, selection, use and limits of respiratory PPE, and cleaning and maintenance of PPE. Training and fit testing is provided annually for each crew member who might require a respirator in conjunction with performing his or her work, including oil spill responses. Training covers the following areas: 1) description of the respirators, 2) use and limitations of respirator use, 3) how to properly don, adjust and check a respirator fit, and 4) cleaning/maintenance, inspection and storage methods. All vessel personnel will be covered by and must comply with the requirements of VML's Respiratory Protection Policy. The Respiratory Protection Policy is in compliance with the requirements of 29 CFR 1910.134 and a copy will be maintained onboard each vessel.

### 1.3.4 SITE SPECIFIC SAFETY PLAN

Should a significant spill or discharge happen on a vessel covered under this plan, the site safety plan in Figure 1.3-1 will be used.

**FIGURE 1.3-1  
VML OIL SPILL SITE SAFETY PLAN**

Site Name \_\_\_\_\_

#### **A. SITE DESCRIPTION**

Date \_\_\_\_\_ Location \_\_\_\_\_  
Hazards \_\_\_\_\_  
Area Affected \_\_\_\_\_  
Weather Conditions \_\_\_\_\_  
Surrounding Population \_\_\_\_\_  
Topography \_\_\_\_\_  
Additional Information \_\_\_\_\_

#### **B. ENTRY OBJECTIVES**

The objective of entry to the contaminated area is to:  
Follow Emergency Action Plan in Section 1.1.  
Identify contamination  
Monitor conditions

#### **C. ON-SITE (VESSEL) ORGANIZATION AND COORDINATION**

Master 1	Project team leader, On Site Safety Officer
Mate, 1	Assistant/Advisor to the Master
Engineer 1	Field team leader
Cook 1	Record keeper
Tankerman/Deckhand 1-2	Field team members

All VML tugs are mobile with self-contained housing, galleys, shops and storage areas.

#### **D. ON-SITE CONTROL**

Mate: \_\_\_\_\_ will coordinate security on-site. No unauthorized person should be within the exclusion zone.

The on-site Command Post and staging area have been established.  
Initial Command Post will be VML's tug.  
Incident Command Post will be VML's Company office at Anchorage.

The prevailing wind conditions are \_\_\_\_\_ and the Initial Command Post is upwind from the exclusion zone.

Control Boundaries are established as follows:

Exclusion Zone (contaminated area) \_\_\_\_\_

Support Zone (clean area) \_\_\_\_\_  
\_\_\_\_\_.

Contamination Reduction Zone (decon area) \_\_\_\_\_

All areas will be noted on a local map or diagram and posted in the Initial and Incident Command Centers as well as local public areas, and marked and/or monitored by VML.

ON-SITE CONTROL LOG

Date: \_\_\_\_\_

Name	Site Task	Representing	In	Out

Note: All non-scheduled activities must be cleared through the Incident Commander.

**E. HAZARD EVALUATION**

The following substances(s) are known or suspected to be on site. The primary hazards on each are identified.

Substance	Volume Spilled	Concentration in Air, if known	Primary Hazards
Gasoline (Unleaded)			Fire, Explosion, Eye Contact, Dermal Exposure, Inhalation
Gasoline (Aviation)			Fire, Explosion, Eye Contact, Dermal Exposure, Inhalation
Diesel (Jet-A-50/HF#1)			Fire, Explosion, Eye Contact, Dermal Exposure, Inhalation
Diesel (#2)			Fire, Explosion, Eye Contact, Dermal Exposure, Inhalation

Material Safety Data Sheets (M.S.D.S.) for the above substances are in the MSDS binder at the Command Post and are stored aboard the Tug Vessel.

Additional Hazards that may be encountered: fire, slippery ground, small boat operations, weather conditions, uneven ground etc. \_\_\_\_\_

**F. PERSONAL PROTECTIVE EQUIPMENT**

- Based on a hazard evaluation the following levels of personal protection have been designated for the applicable work areas or tasks:

LOCATION	JOB FUNCTION	LEVEL OF PROTECTION
Exclusion Zone	_____	C D OTHER
	_____	C D OTHER
	_____	C D OTHER
Contamination Reduction Zone	_____	C D OTHER
	_____	C D OTHER
	_____	C D OTHER

- Air Monitoring must be conducted to ensure proper respiratory protection equipment is utilized. Specific protective equipment for each level of protection is as follows: No changes to these specified levels are to be made without approval of the Site Safety Officer.

- Level C
  - Splash Gear, Safety Glasses/Goggles/Face Shield
  - Full Face Respirator
  - Disposable Coveralls
  - Protective Gloves
  - Hard Hat and Neoprene Safety Boots
  - PFD while working near water
- Level D
  - Splash Gear, Safety Glasses/Goggles/Face Shield
  - Disposable Coveralls
  - Protective Gloves
  - Hard Hat and Neoprene Safety Boots
  - PFD while working near water

For Gasoline (Unleaded), Gasoline (Aviation), Diesel (JET-A-50/HF#1), Diesel Fuel #2;  
Chemical Resistant protective clothing materials are required.

**G. ON-SITE WORK PLANS**

1. Work groups consisting of a minimum of 2 persons will perform the following tasks:

Group 1	Name	Function
Lead Person	_____	_____
Team Members	_____	_____
	_____	_____
	_____	_____

Analyze Possible Hazards and Identify Means to Mitigate or Protect from Hazards: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Group 2	Name	Function
Lead Person	_____	_____
Team Members	_____	_____
	_____	_____
	_____	_____

Analyze Possible Hazards and Identify Means to Mitigate or Protect from Hazards: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Employees were briefed on the contents of this plan at \_\_\_\_\_ o'clock on \_\_\_\_\_ (date).  
The sign in sheet is located at command center No. 1.

**H. COMMUNICATION PROCEDURES**

1. All Group Leaders will carry a radio. Marine channel 6 has been designated as the radio frequency to be used.
2. Personnel in the Exclusion Zone will remain in constant radio communication or within sight of the Foreman. Any failure of communication requires an immediate evaluation of whether personnel should leave the Exclusion Zone.
3. A prolonged blast (longer than 5 seconds in duration) from the tugs horn will be used as an emergency signal to indicate that all personnel should leave the Exclusion Zone.
4. The following standard hand signals will be used in case of failure of radio communications:
  - Hand gripping throat..... Out of air, can't breath
  - Grip Partner's Wrist or..... Leave area immediately  
both hands around waist
  - Hands on top of head..... Need assistance
  - Thumbs up ..... OK, I am all right, I understand
  - Thumbs down..... No, negative
  - Closed hand (fist) ..... Stop
  - Other \_\_\_\_\_
5. See Section 1.4 for telephone, fax numbers, vessel call signs and radio frequencies available.



VML owns and has access to Combustible Gas/Oxygen monitors on board the tug, and through vendors in Anchorage and Fairbanks. The meters are equipped with sampling pumps and must be operated by qualified personnel (VML's designated "Shipyard Competent Persons") and/or Safety Officer.

Initial vapor plumes are detected by smell and direction is determined by an anemometer on-board the tug. VML does not operate in weather cold enough to cause a weather inversion preventing a vapor cloud from rising.

#### 4. EMERGENCY PROCEDURES (WILL BE MODIFIED AS REQUIRED)

On-site personnel will use the following standard emergency procedure. The Site Safety Officer must be notified immediately of any on-site emergencies and will be responsible for ensuring that the appropriate procedures are followed.

##### a. Personnel Injury in the Exclusion Zone

Upon notification of an injury in the Exclusion Zone, the designated EMERGENCY SIGNAL (prolonged blast on tug horn) will be sounded. All site personnel will assemble at the decontamination corridor entrance. The rescue team will enter the Exclusion Zone (if required) to remove the injured person(s). The IC will evaluate the nature of the injury, and the affected person(s) will be decontaminated to the extent possible prior to movement to the Support Zone. Appropriate first-aid will be initiated and contact will be made for an ambulance, if required, and transported to a designated medical facility (if required). No persons will reenter the Exclusion Zone until the cause of the injury or symptoms are determined and the safety plan has been modified, if necessary.

##### b. Fire Explosion/Toxic Vapor Release

Upon notification of a fire, toxic vapor release, or explosion on site, the emergency signal will be sounded and all site personnel assembled at the decontamination line. The fire department (see Section 1.2) will be alerted and all personnel moved a safe distance from the involved area, if required. Fire extinguishers locations are designated at 1.6.2.

In addition to fire extinguishers, VML's tug is equipped with fire pumps (2 in excess of 190 GPM) and fire hoses with fire nozzles. Many of the villages along the river system have some form of fire fighting capability.

##### c. Personal Protective Equipment Failure

If any site worker experiences a failure or alteration of protective equipment that affects the protection factor, that person and his/her buddy will immediately leave the Exclusion Zone. Reentry will not be permitted until the equipment has been repaired or replaced.

##### d. Other Equipment Failure

If any other equipment on-site fails to operate properly, the Lead Responder on-site and SSO will be notified and will determine the effect of this failure on continuing operations on-site. The lead responder on-site is responsible for the supervision of work activities at site. The lead responder is an experienced supervisor and has experience in spill response. This position may be filled by Chadux or contractor personnel. If the failure affects the safety of personnel or prevents completion of the Work Plan tasks, personnel will leave the Exclusion Zone until the situation is evaluated and appropriate actions taken.

##### e. Evacuation of the Exclusion Zone will occur in the following order:

1. Find your buddy
2. Leave by the previously discussed route or crosswind.
3. Gather at the Decontamination Area.

4. Safety Officer will count heads.

Personnel shall not reenter until:

1. The conditions resulting in the emergency have been corrected
2. The hazards have been reassessed
3. The Site Safety Plan has been reviewed
4. Site personnel have been briefed on any changes in the site safety plan

5. PERSONAL MONITORING

All personal monitoring is done by visual contact with supervisors or safety officer who are on site.

Medical monitoring: The expected air temperature will be \_\_\_\_\_ if it is determined that temperature stress monitoring is required (mandatory if over 70° F or under 20° F) the following procedures will be followed:

Body temperatures will be monitored when air temperatures exceed 70° F. If the temperature of the monitored individual exceeds 100.0° F, the person will be monitored every 15 minutes. When body temperature exceeds 100.6° F, a rest stop will be called or work will be stopped for the day. Hypothermia will be monitored when temperature falls below 20° F. Workers will be checked for shaking, disorientation, lethargy, or moodiness. A rest stop and warm liquids will be provided should any of these symptoms persist unless the worker is wet or extremely chilled.

The following site personnel have read the above plan and are familiar with its provisions.

	<u>Printed Name</u>	<u>Signature</u>
Incident Commander	_____	_____
Site Safety Officer	_____	_____
Company Safety Officer	_____	_____
Mate/Pilot	_____	_____
Other Site Personnel (Tankermen, deck hands)	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

## **1.4 COMMUNICATIONS**

### **1.4.1 NORMAL OPERATIONS**

VML maintains an array of communications equipment that could be utilized in the event of an oil spill.

The VML dispatcher based in Anchorage obtains daily reports of ice, river conditions, and weather via the Internet. The VML dispatcher maintains regular daily radio schedules with vessels where the dispatcher and captain will relay ice or weather conditions and any other useful information.

Normal daily radio schedules between vessels and dispatch occur at 0730, 1345, and 1700 each day via radio/satellite telephone that includes:

- a. Vessel position.
- b. Events other than normal vessel operations that have not been reported to the office.
- c. Description of status of vessel, weather etc. any other information which may be of use to the operations managers.
- d. Any minor mechanical problems and/or discrepancies/parts needed
- e. ETD the current stop and/or ETA at next destination.
- f. Dispatch relays any weather or other information which may be of use to wheelman at this time also.
- g. Dispatch logs the information.

Because of daily radio schedules, the radio/satellite telephone system is tested daily.

### **1.4.2 OIL SPILL OPERATIONS**

In the event of an oil spill, the communications network would be dedicated to containment and cleanup communications. Command and control personnel will utilize the base station VHF radios, landline telephones, satellite and cellular telephones, email, and facsimiles. Operational and support personnel will be equipped with portable handheld VHF radios and the response boats are equipped with a base station VHF. Command and tactical radio channels will be assigned as needed based on the operational requirements. A command channel will be used to link the command post with on-site supervisors, VHF marine channel 85 would be used for this purpose. VHF marine channels 68,69,71,72 and 78 would be used for tactical operations. VHF marine channel 16 will be monitored during response operations by site safety officers and operations supervisors.

Information will be passed to and from management and the vessel involved in a spill event via regular communication schedules established for the spill event, and if necessary, the management ICS team will travel to the site. Criteria for establishing schedule of communications include:

- At minimum, morning, mid-day, and evening (establish specific times)
- In any significant event or change in status of the incident
- After any safety incident (near miss, injury, illness)

Where VHF, cellular and/or satellite telephone service is marginal-intermittent-non existent, a portable repeater system from Alaska Chadux may be utilized to boost the signal or increase range, if this option is not feasible, a relay system through other vessels, the marine operator, towns or villages can be used. See Table 1.2-7 for a list of local contacts.

Command Centers discussed under Expanded Network in this section.





generally line-of-sight technology dependent upon weather, terrain and type of equipment. Cell service is available:

1. Bristol Bay Cellular and GCI reach most areas from Togiak to Kodiak to Unalaska and to St. Paul Island.
  2. Alaska Digitel covers Valdez and NE Prince William Sound, Anchorage to Cook Inlet, and Glenallen.
  3. AT&T Wireless and ACS covers most of Southeast Alaska, Anchorage, Whittier and Cook Inlet, Matanuska Valley to Glenallen, Paxson to Fairbanks, and Fairbanks to Cantwell.
- Satellite phone and email service aboard VML tugs is provided by Glentel. This satellite phone system directly connects the tug with all land based telephone systems, including cellular systems. The range of this satellite service is the mid northern latitudes ranging from approximately Point Lay in the north to Hawaii in the south; At latitudes above Point Lay, satellite services are limited to periods that the satellite is in view of the vessel. This will limit the use of satellite communications to periods of several hours per day. Most all of VML's operating area is covered by this satellite service.



#### 1.4.9 WEB SITES/SATELLITE LINKS

Ice Analysis & Temperature.....	<a href="http://aprfc.arh.noaa.gov/ice/it_pacr.php">http://aprfc.arh.noaa.gov/ice/it_pacr.php</a>
Make a Tide Prediction .....	<a href="http://co-ops.nos.noaa.gov/">http://co-ops.nos.noaa.gov/</a>
National Weather Service Forecast Office, ANC .....	<a href="http://pafc.arh.noaa.gov">http://pafc.arh.noaa.gov</a>
National Weather Service .....	<a href="http://nws.noaa.gov/">http://nws.noaa.gov/</a>
Alaska Climate Research Center .....	<a href="http://climate.gi.alaska.edu/">http://climate.gi.alaska.edu/</a>
National Weather Service .....	<a href="http://www.nws.noaa.gov/sitemap.html">http://www.nws.noaa.gov/sitemap.html</a>
USCG Information.....	<a href="http://www.uscg.mil">http://www.uscg.mil</a>
Alaska State General Info .....	<a href="http://www.alaska.gov">http://www.alaska.gov</a>
ADEC Spill Prevention and Response .....	<a href="http://dec.alaska.gov/spar/index.htm">http://dec.alaska.gov/spar/index.htm</a>

\*These website addresses have been verified to be working as of the date of this Revision.

## 1.5 DEPLOYMENT STRATEGIES

Spill equipment and personnel deployment strategies are contingent on four primary variables:

- **Safety Considerations** – Deployment of resources will only be conducted in a safe manner. If containment and control actions by the vessel crew are not possible due to safety considerations and/or vessel condition, notification, assessment, and spill tracking will be the primary on board actions, in combination with maintaining the stability of the vessel and position to minimize any potential impact on the shoreline. **IN NO EVENT WILL ANY RESPONSE PERSONNEL OR CONTRACTORS ATTEMPT TO REACH A SPILL SITE IN ADVERSE WEATHER CONDITIONS WITHOUT DIRECT APPROVAL OF THE INCIDENT COMMANDER.** Adverse weather is any weather or sea conditions that, in the judgment of the Unified Command, the master of a vessel, the pilot of any aircraft or the FAA, makes travel by vessel, aircraft, or any other manner unsafe. While response personnel or contractors will not attempt to reach a spill site in adverse weather, response operations will continue where recovery is possible such as on the lee side of the stricken vessel, in protected waters, and in nearshore and shoreline areas. See Section 3.4.2 Response Actions Under Limiting Adverse Conditions.
- **Location of Spill Site** – VML's operating area is very large in size and includes both marine and river systems in Western, Interior, and Bristol Bay, Alaska. The location of a spill will predicate deployment of Alaska Chadux spill resources. For this reason, VML has pre-identified logistics hubs that contain airports capable of receiving a C-130 and that are strategically located in the operating area.
- **Size of the Oil Spill** – The most likely spill size is relatively small and likely to occur from a leak at a manifold or from a rupture of the cargo transfer hose during transfer. VML vessels maintain on-board OSR equipment to handle these spill magnitudes. A spill consistent with the Response Planning Standard would most likely be from an unintentional grounding with damage to one or more cargo tanks. In these cases, additional spill resources would need to be transported from Alaska Chadux's bases to one of the pre-identified logistics hubs and then to the spill site. In the case where only a limited amount of additional equipment is needed, smaller aircraft may be suitable and smaller airports other than the logistics hubs may be utilized.
- **Trajectory of Oil Spill** – Where spills occur to river systems, the trajectory will obviously be downstream at a velocity nearly equivalent to the velocity of the river. This factor combined with the time required for mobilization of resources to the logistics hub will be considered when choosing which logistics hub will be utilized. Where spills occur in open water, see Figure 1.6-1 and Section 1.6.3.2 Trajectory Forecasts.

This section of the plan describes general procedures for prompt mobilization, which is the time required for the resource to reach the site, and deployment of the personnel and equipment necessary to contain, control and clean up the spill. VML relies on the following sources for resources:

- On board oil spill response equipment and personnel (see Section 1.5.1 for deployment procedures of onboard personnel for response and Section 3.6.1 for a description of the onboard equipment).
- Additional Company response personnel and equipment. Primarily Anchorage based. (See Section 1.5.2)
- Response contractors. Primarily Alaska Chadux Corporation. See Section 1.5.3 for mobilization and deployment procedures of ACC's equipment and resources and Section 3.8 for information on the Primary Response Action Contractors/Oil Spill Removal Organization under contract to provide response resources.

### 1.5.1 DEPLOYMENT OF VML'S ON BOARD SPILL RESPONSE EQUIPMENT AND PERSONNEL

Containment boom and the oil skimmer from the barge will be deployed by the onboard personnel as the primary response to a barge spill, after ensuring safety. The containment boom and skimmer system are usually kept ready for deployment on the barge deck during critical loading and offloading operations.

All personnel, with their response equipment, have immediate access to the spill via an onboard workboat.

The Master will designate a crew to begin deployment of the oil spill containment boom stored on deck of each barge and/or onboard the tug and the work boat.

The crew will attempt to prevent fuel spilled on deck from entering the water by containing or diverting the spill. Sorbent material will be used to limit, contain, or divert flow. During transfers scuppers are already plugged.

Recovery. Skimmers and transfer pumps will be set up as determined feasible with discharge hoses to empty or slack barge tank(s), barge void(s) or transfer to another vessel as determined appropriate for the circumstances by the Master (IOSC/Master). Transfer and recovery actions begin.

The Master (IOSC/Master) will initiate notification of company personnel as soon as possible but within one hour. See Section 1.1.—Tank Barge Emergency Action Checklist and Table 1.2-2 VML Notification Checklist. At this time, the Master (IOSC/Master) will decide whether to activate and mobilize the shore based oil spill and related emergency response resources of VML and the Alaska Chadux Corp. That decision will be based on, but not limited to the following criteria:

#### Shore Based Response Activation Criteria:

- Location of the vessel ..... Distance from shore
- Status of the discharge ..... Volume discharged; is discharge continuing?
- Status of the vessels ..... Stability
- Success of the on site control and containment actions
- Threat to the environment .... (See Sec 3.10.1 Identification of Environmentally Sensitive Areas)
- Realistic operating conditions ..... (See section 3.4.1 General Adverse Conditions)
- Safety issues..... (See Section 1.3.3 Safety of Personnel)
- Availability of additional VML shore based equipment

### 1.5.2 DEPLOYMENT OF ADDITIONAL VML SPILL RESPONSE EQUIPMENT AND PERSONNEL

After initial deployment of the On-Board OSR equipment and resources, VML's next response (depending on the spill size, location or potential impacts) will be to select and assemble personnel, response equipment, and supplies from its Aleknagik hub for transport to the spill site while considering requesting additional response from Alaska Chadux. Transportation will usually occur by air as there are few roads in Bush Alaska and because of the long distances that must be traveled. If necessary, immediate transportation of equipment and personnel from the major staging areas (table 1.5-1) will occur with relatively small, locally chartered fixed wing aircraft. These aircraft may fly to one of the key staging areas listed in Table 1.5-2 or to a smaller airport that is not listed in this table but that might be closer to the incident. The availability of personnel from the Anchorage office or Aleknagik operations base will be dependant on current level of operations. The Anchorage office normally has a staff of 3, the Aleknagik operations base has an operations manager and may also have additional vessel personnel that are in port.

Based on the initial assessment of the spill situation, the IOSC/Master or the QI (shore based contact) will notify all appropriate local emergency resources and begin plans to mobilize and deploy their resources as needed, i.e., fire and police departments.

**In any event, a decision to mobilize additional resources will be made within one hour of the initial spill report. If the spill turns out to be smaller than originally assessed, it is always possible to turn the responding resources back. It is not possible to get them there any faster if things get worse. Always notify and mobilize the maximum amount of response resources that may be needed.**

Adverse Conditions. If deployment actions by the vessel crew are not possible due to safety considerations and/or vessel condition, notification, assessment, and spill tracking will be the primary on board actions, in combination with maintaining the stability of the vessel and position to minimize any potential impact on the shoreline.

Stand by Assessment Objectives:

- Monitor vessel position and stability
- Monitor weather conditions
- Monitor sea conditions
- Monitor tides and currents
- Monitor rate of discharge and size of spill
- Monitor wildlife

Assessment Tools

- Pacific Tide and Current Tables in tide books or *Reed's Nautical Almanac*
- Weather broadcast
- Radio broadcasts by other vessels and/or USCG
- Periodic visual surveys of the surrounding area for wildlife
- VML Vessel Fleet Oil Discharge Prevention and Contingency Plan

Air over-flights should begin as soon as possible (Table 3.5-1).

### **1.5.3 DEPLOYMENT OF VML'S RESPONSE ACTION CONTRACTOR'S SPILL RESPONSE EQUIPMENT AND PERSONNEL**

Based on the location and size of a spill, management personnel will be transported by air to the closest suitable command center. Response resources will be transported either by air or vessel, either to the site, the Command Center, or a staging area.

The following table lists the marine terminals with spill response equipment available. All of this equipment is available to respond to a VML vessel spill and can be at the scene, in that port, within 2 hrs of notification of the spill. Most of the equipment is available to be deployed immediately at the port area of each location.

**TABLE 1.5-1  
LOCATIONS WITH RESPONSE EQUIPMENT AVAILABLE TO VML**

<b>Location</b>	<b>Company</b>	<b>Equipment</b>
Anchorage	Primary Response Equip Base for Alaska Chadux	Boom, skimmers, storage tanks, vessels, sorbents, comms, hazing, decon ( <u>See Appendix C of the Alaska Chadux Response Manual</u> )
Aleknagik	Pacific Fishing Assets	Skimmer, sorbents, pumps, hoses, PPE
Barrow	Alaska Chadux	Boom, sorbents, hazing, PPE, decon ( <u>See Appendix C of the Alaska Chadux Response Manual</u> )
Bethel	Alaska Chadux	Boom, sorbents, PPE, hazing, decon. ( <u>See Appendix C of the Alaska Chadux Response Manual</u> )
Cordova	Alaska Chadux	Boom, skimmers, storage tanks, vessel, sorbents, PPE, Hazing Kit, Decon ( <u>See Appendix C of the Alaska Chadux Response Manual</u> )
Dillingham	Alaska Chadux	Boom, PPE Kit, Hazing Kit ( <u>See Appendix C of the Alaska Chadux Response Manual</u> )
	Bristol Alliance Fuels	Boom, skimmers, sorbents, storage tanks, tank trucks, vessel, decon
Kodiak	Alaska Chadux	Boom, skimmers, storage tanks, sorbents, hazing, vessel, decon ( <u>See Appendix C of the Alaska Chadux Response Manual</u> )
Kenai	Alaska Chadux	Boom, skimmers, storage tanks, vessel, sorbents, PPE, hazing, decon ( <u>See Appendix C of the Alaska Chadux Response Manual</u> )
Galena	City of Galena	Boom
Naknek	Alaska Chadux	Boom ( <u>See Appendix C of the Alaska Chadux Response Manual</u> )
Nenana	Ruby Marine	Boom / Skimmer
Nome	Alaska Chadux	Boom, PPE, hazing, decon ( <u>See Appendix C of the Alaska Chadux Response Manual</u> )
Seward	Alaska Chadux	Boom, skimmer, sorbents, PPE
Unalaska	Alaska Chadux	Boom, skimmers, storage tanks, vessel, PPE, sorbents, hazing, decon ( <u>See Appendix C of the Alaska Chadux Response Manual</u> )
Valdez	Alaska Chadux	Boom, skimmers, storage tanks, PPE, vessel, hazing, decon. ( <u>See Appendix C of the Alaska Chadux Response Manual</u> )

For the northern regions of Alaska, the average equipment mobilization time from Anchorage to the Anchorage Airport is 4 hours from notification during business hours. A request for equipment made after hours would require an additional 1 to 2 hours (See Figure 15, Section 1.7 of the Alaska Chadux Response Manual). It would be extremely rare to have the entire state inaccessible by air. If any one port is inaccessible mobilization would be accomplished as close as possible and then further transferred by vessel, vehicle, or aircraft.

If additional resources from VML or Alaska Chadux or another third party are activated, the primary modes of transportation of shore based response resources are:

**Aircraft** including fixed wing, rotor, amphibious, float aircraft

**Vehicles** including tractor trailers, trucks, ATVs

**Vessels** including skiffs, barges, freight vessels, fishing vessels, and landing craft

PFA Aleknagik and Bristol Alliance Fuels maintain response equipment ready to be mobilized to a spill site. This includes trained personnel meeting VML's Spill Response Personnel training requirements, ready for mobilization. PFA and BAF response resources are provided through a Contract with Vitus Marine. See Section 3.8.

Alaska Chadux equipment is maintained in a manner for rapid deployment. The fly-away equipment in Anchorage is stored in container vans on trailers, ready for pick up by tractor trailers for shipment, delivery to a staging area or deployment site. The vans are packed in a "deployment ready" manner so that equipment is ready to deploy right out of the van. Alaska Chadux maintains a list of air transport systems suitable for air deployment of Alaska Chadux resources to airstrips.

Mobilization of equipment includes packaging, loading equipment to intermediate transportation trucks, delivery to the airport or port from which the equipment will be sent, and loading to the aircraft or vessel. For purposes of this oil spill plan, aircraft mobilization times are estimated to be 5.0 hours and vessel mobilization times are estimated at 3.5 hours. (See Figure 15, Section 1.7 of the Alaska Chadux Response Manual)

A list of commercial transportation companies with vessels, aircraft and vehicles suitable for transportation to and deployment of resources to a spill site are listed Table 3.5.1 of this plan, Section B of the appropriate Subarea Contingency Plan located in Appendix B, and in Section 3.5.5 and 3.5.6 of the Alaska Chadux Response Manual.

Table 1.5-2 lists the key major staging areas in VML's operating area. The staging areas selected are based on airports that are in proximity to marine and river waters in the operating area and that have an airstrip suitable for landing by a loaded C-130.

**TABLE 1.5-2  
MAJOR STAGING AREAS**

<b>DEPARTURE</b>	<b>STAGING AREA</b>	<b>APPROX AIR MILES</b>	<b>C-130 (350 mph)</b>	<b>PASSENGER JET (450 mph)</b>	<b>SKY VAN (160 mph)</b>	<b>TWIN TURBO PROP Saab 340 (322mph)</b>
<b>Kuskokwim River</b>						
Anchorage	Aniak	332	0.9 hrs	0.7 hrs	2.1 hrs	1.0 hrs
Anchorage	Bethel	405	1.2 hrs	0.9 hrs	2.5 hrs	1.2 hrs
Anchorage	Huslia	371	1.1 hrs	0.8 hrs	2.3 hrs	1.1 hrs
Anchorage	McGrath	225	0.6 hrs	0.5 hrs	1.4 hrs	0.7 hrs
Anchorage	Nikolai	190	0.5 hrs	0.4 hrs	1.2 hrs	0.6 hrs
Anchorage	Red Devil	265	0.8 hrs	0.6 hrs	1.7 hrs	0.8 hrs
<b>Yukon, Nenana, Tanana, Koyukuk, and Tributaries</b>						
Anchorage	Allakaket	385	1.1 hrs	0.9 hrs	2.4 hrs	1.1 hrs
Anchorage	Beaver	365	1.0 hrs	0.8 hrs	2.3 hrs	1.1 hrs
Anchorage	Emmonak	500	1.4 hrs	1.1 hrs	3.1 hrs	1.5 hrs
Anchorage	Fairbanks	265	0.8 hrs	0.6 hrs	1.7 hrs	0.8 hrs
Anchorage	Ft. Wainwright	265	0.8 hrs	0.6 hrs	1.7 hrs	0.8 hrs
Anchorage	Ft. Yukon	400	1.1 hrs	0.9 hrs	2.5 hrs	1.2 hrs
Anchorage	Galena	335	1.0 hrs	0.7 hrs	2.1 hrs	1.0 hrs
Anchorage	Holy Cross	340	1.0 hrs	0.8 hrs	2.1 hrs	1.0 hrs
Anchorage	Hughes	360	1.0 hrs	0.8 hrs	2.3 hrs	1.1 hrs
Anchorage	Kaltag	360	1.0 hrs	0.8 hrs	2.3 hrs	1.1 hrs
Anchorage	Kotlik	470	1.3 hrs	1.0 hrs	2.9 hrs	1.4 hrs
Anchorage	Nenana	230	0.7 hrs	0.5 hrs	1.4 hrs	0.7 hrs
Anchorage	Nulato	360	1.0 hrs	0.8 hrs	2.3 hrs	1.1 hrs
Anchorage	Rampart	300	0.9 hrs	0.7 hrs	1.9 hrs	0.9 hrs
Anchorage	Ruby	300	0.9 hrs	0.7 hrs	1.9 hrs	0.9 hrs
Anchorage	St. Mary's	450	1.3 hrs	1.0 hrs	2.8 hrs	1.3 hrs
Anchorage	Tanana	290	0.8 hrs	0.6 hrs	1.8 hrs	0.9 hrs
<b>Bristol Bay, Bering Sea, &amp; Marine Areas</b>						
Anchorage	Cape Newenham	455	1.3 hrs	1.0 hrs	2.8 hrs	1.3 hrs
Anchorage	Cape Romanzof	540	1.5 hrs	1.2 hrs	3.4 hrs	1.6 hrs
Anchorage	Dillingham	335	1.0 hrs	0.7 hrs	2.1 hrs	1.0 hrs
Anchorage	Egegik	342	1.0 hrs	0.8 hrs	2.1 hrs	1.0 hrs
Anchorage	Hooper Bay	545	1.6 hrs	1.2 hrs	3.4 hrs	1.6 hrs
Anchorage	King Salmon	300	0.9 hrs	0.7 hrs	1.9 hrs	0.9 hrs
Anchorage	Pilot Point	370	1.1 hrs	0.8 hrs	2.3 hrs	1.1 hrs
Anchorage	Port Heiden	433	1.2 hrs	1.0 hrs	2.7 hrs	1.3 hrs
Anchorage	St. Michaels	430	1.2 hrs	1.0 hrs	2.7 hrs	1.3 hrs
Anchorage	Unalakleet	400	1.1 hrs	0.9 hrs	2.5 hrs	1.2 hrs
Anchorage	Unalaska	800	2.5 hrs	1.7 hrs	5.0 hrs	2.6 hrs
Anchorage	Teller	579	1.6 hrs	1.3 hrs	3.6 hrs	1.8 hrs
Anchorage	Brevig Mission	586	1.6 hrs	1.3 hrs		
Anchorage	Nome	537	1.5 hrs	1.2 hrs	3.3 hrs	
<b>Nushagak and Kvichak Rivers</b>						
Anchorage	Ekwok	280	0.8 hrs	0.6 hrs	1.8 hrs	0.8 hrs
Anchorage	New Stuyahok	275	0.8 hrs	0.6 hrs	1.8 hrs	0.8 hrs
Anchorage	Clarks Point	335	1.0 hrs	0.7 hrs	2.1 hrs	1.0 hrs
Anchorage	Manokotak	345	1.0 hrs	0.8 hrs	2.2 hrs	1.1 hrs
Anchorage	Levelock	270	0.8 hrs	0.6 hrs	1.8 hrs	0.8 hrs
Anchorage	Igiugig	235	0.7 hrs	0.5 hrs	1.5 hrs	0.7 hrs

Northwest Arctic						
Anchorage	Ambler	471	1.3 hrs	1.0 hrs	2.9 hrs	1.4 hrs
Anchorage	Brevig Mission	588	1.7 hrs	1.3 hrs	3.7 hrs	1.7 hrs
Anchorage	Buckland	477	1.4 hrs	1.0 hrs	3.0 hrs	1.4 hrs
Anchorage	Deering	517	1.5 hrs	1.1 hrs	3.2 hrs	1.5 hrs
Anchorage	Kiana	509	1.4 hrs	1.1 hrs	3.2 hrs	1.5 hrs
Anchorage	Kotzebue	549	1.6 hrs	1.2 hrs	3.4 hrs	1.6 hrs
Anchorage	Nome	539	1.5 hrs	1.2 hrs	3.4 hrs	1.6 hrs
Anchorage	Noorvik	514	1.5 hrs	1.1 hrs	3.2 hrs	1.5 hrs
Anchorage	Selawik	483	1.4 hrs	1.0 hrs	3.0 hrs	1.4 hrs
Anchorage	Saint Michael	420	1.2 hrs	0.9 hrs	2.6 hrs	1.2 hrs
Anchorage	Teller	583	1.7 hrs	1.3 hrs	3.6 hrs	1.7 hrs
Anchorage	White Mountain	487	1.4 hrs	1.0 hrs	3.0 hrs	1.4 hrs

ATVs are available in almost all remote communities of Alaska and are a primary method of reaching beach areas. A variety of boats and skiffs are also present in all communities. The VML Spill Management team will identify available ATVs and skiffs and procure them for use to transport response resources to the spill site as needed.

Any transfers of personnel, equipment, or materials from plan holders to plan holders will be done in compliance with 18 AAC 75.470. If weather conditions prevent access to a spill site by vessel or air, resources will be transported to the nearest safe staging area which may be a port, boat ramp, airport or air strips, protected bay or road end at the water. The Planning Section Chief will determine the location(s) of these staging areas during a spill response using reference material at the Anchorage office, through VML agents located in villages.

All emergency equipment, personnel, and supplies would be transported via the air transportation system. Equipment too large or heavy to be transported by air would have to be transported by barge to the spill site. This equipment would be transported to the spill site via VML or contracted freight transportation system. It is not VML policy to rely on barge transportation for cleanup materials and/or essential equipment (barge transportation only used as necessary). See Table 1.5-3 for estimated barge transportation times (based on 10 knots).

During periods of adverse weather conditions that preclude the use of aircraft for the transportation of personnel and equipment, vessels will be utilized for transportation if conditions are safe to do so.

**TABLE 1.5-3  
ESTIMATED BARGE TRANSPORTATION TIMES  
(SEAPORTS, BASED ON 10 KNOTS TRANSIT SPEED)**

	Anchorage	Dutch Harbor	Dillingham	Bethel	Hooper Bay
Anchorage	0	76.3 hrs	107.2 hrs	110.9 hrs	116.2 hrs
Dutch Harbor	76.3 hrs	0	43.2 hrs	46.4 hrs	48.5 hrs
Dillingham	107.2 hrs	43.2 hrs	0	32.2 hrs	49.3 hrs
Bethel	110.9hrs	46.4 hrs	32.2 hrs	0	45.4 hrs
Hooper Bay	116.2 hrs	48.5 hrs	49.3 hrs	45.4 hrs	0

(Source: US Dept of Commerce. US Coast Pilot, No. 9 (27<sup>th</sup> Edition), 2009.

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## 1.6 RESPONSE STRATEGIES

In the event of a spill from a vessel covered under this plan, the Master is the Initial On Scene Commander and will initiate the **Emergency Action Checklist Table 1.1.1.**

Response strategies for oil spills to surface waters from tank barges are described in this section. This section is organized in two parts:

- Presentation of general strategies and guidelines to assist in the decision making process by the vessel crew and spill response personnel. These strategies are applicable to many different types of incidents. It is important to note that the actual procedures that will be followed will depend on the spill characteristics, weather, and other environmental conditions. These strategies are to be used as guidelines only.
- Response scenarios that present the possible sequence of events and tactics that might occur in the event of an oil spill and an estimated mass balance accounting of the spilled oil for that hypothetical spill scenario. The scenarios are intended to demonstrate compliance with the ADEC Response Planning Standards. The RPS (Response Planning Standard) for VML is 1,500 bbls, (See Part I, Section 5) For USCG planning volumes, see Section 1.8.7.

See general oil spill response guidelines in Table 1.6-1

**TABLE 1.6-1  
GENERAL OIL SPILL RESPONSE GUIDELINES**

1. See Emergency Action Checklist at Section 1.1
2. Stop the Flow of Oil – See Section 1.6.1
3. Prevent or Control Fires – See Section 1.6.2
4. Conduct Surveillance, Track Flow of Oil – See Section 1.6.3
5. Contain and Control Oil Using Containment Boom (exception: Gasoline) – See Section 1.6.4
6. Recover Spill Oil Using Floating Skimmers – See Section 1.6.5
7. Lighter, Transfer oil from Barge to Prevent Further Discharge – See Section 1.6.6
8. Temporarily Store Recovered Oil, Measure Amount Recovered, Transfer as Necessary, Dispose of Wastes – See Section 1.6.7
9. Protect Environmentally Sensitive Areas, including Wildlife – See Section 1.6.8
10. Conduct Shoreline Cleanup as Necessary – See Section 1.6.9.

Adverse Conditions. If containment and control deployment actions by the vessel crew are not possible due to safety considerations and/or vessel condition, notification, assessment, and spill tracking will be the primary on board actions, in combination with maintaining the stability of the vessel and position to minimize any potential impact on the shoreline.

Stand by Assessment Objectives:

- Monitor vessel position and stability
- Monitor weather conditions
- Monitor sea conditions
- Monitor tides and currents
- Monitor rate of discharge and size of spill
- Monitor wildlife

## Assessment Tools

Pacific Tide and Current Tables in tide books or *Reed's Nautical Almanac*  
Weather broadcast  
Radio broadcasts by other vessels and/or USCG  
Periodic visual surveys of the surrounding area for wildlife  
VML Vessel Fleet Oil Discharge Prevention and Contingency Plan

Air over-flights should begin as soon as possible (See Section 1.6.3.1).

## **1.6.1 PROCEDURES TO STOP THE DISCHARGE**

### **A. Initial emergency measures to stop the flow:**

1. **Shut down pumps** and stop all transfers.
2. **Secure the vessel** (close hatches, vents, scupper plugs in), deploy response equipment, call QI for assistance and to report.
3. **Determine which tanks are damaged and/or leaking.**
4. **Transfer product from leaking tanks** into secure tanks (VML vessel, a vessel of opportunity, or land tanks). Consult with the tanker's marine architect or salvage contractor if necessary.

### **Hole above the water line:**

Make temporary repairs if possible.

- Small fracture or crack patch hole externally with Marine-Tex. (Marine-Tex is a two part epoxy (glue/putty) usable on steel. It is only to be used as a temporary repair and only on small leak or weeping crack.)
- Large fracture or hole: secure the vessel, call QI for assistance.

### **Hole below water line:**

- Allow water to enter the tank through the hole, counter flooding the tank and creating a water bottom. (oil floats on water)
- Transfer cargo out of damaged tank by use of portable transfer pump to undamaged tanks to allow a water bottom to form in the damaged tank. The suction hose should be placed into the damaged tank through the expansion trunk or deck plate, the discharge hose shall be connected to the barge's piping manifold for distribution to available tanks. Caution should be used whenever making transfers through expansion trunks or deck plates.
- Transfer cargo from damaged tank to undamaged tanks.

### **B. Procedures for moving vessel:**

1. Move vessel to a safe area and control spread of oil.
2. Move the vessel to a safe beach or sandbar immediately if there is the possibility of the vessel sinking. Review section 1.2 for salvage contractors. After the vessel has been safely beached intertank transfers can commence or the bow or stern rake/void could be used for fuel storage, with the permission of the engineering firm contracted to provide damage control and stability calculations.
3. Any decision to further move the stricken vessel will be made jointly by the Master, a VML QI, and with the concurrence of the USCG.

- C. Chartered Tanker Vessel Response Plan** (contains mitigation procedures for transfer/pipe system leaks, tank overflow, cargo tank or hull leak, grounding or stranding, collision, explosion or fire, hull failure, excessive list, and equipment failure. It also addresses submerged/founded conditions, wrecked/stranded issues, and hazardous vapor release. This plan is in the wheelhouse of each chartered tanker. Below are examples for grounding/stranding and collision/allision:

## COLLISION/ALLISION

1. In the event a collision is imminent, the Captain or wheelhouse person in charge must take action including but not limited to the following:
  - a) Sound five short blasts on horn;
  - b) Sound general alarm, if appropriate; and,
  - c) Instruct crew to put on life jackets, if appropriate.
2. In the event a collision occurs, the vessel Captain or wheelhouse person in charge must take action including but not limited to the following:
  - a) Attend to any injured crewmember.
  - b) Notify nearby marine traffic if collision is in, near, or blocking a navigable channel.
  - c) Assess damage to the boat, tow, and/or structure. Put on chemical protective clothing and respirator if required. (Sound all tanks, observe for sheen, depth soundings, tide, wind, assess environmentally sensitive areas for human use or wildlife)
3. If collision is with another vessel, obtain pertinent information from the vessel Captain or wheelhouse person in charge of the other vessel
  - a) If the damage is minor:
    - i) Notify VML Operations.
    - ii) Notify the Coast Guard. Fill out Form CG-2692 if requested and only when a VML supervisor is present.
    - iii) Document the damage, including photographs.
    - iv) Drug and alcohol test all personnel on shift aboard VML vessel.
    - v) Get underway.
  - b) If the damage is serious:
    - i) Notify VML Operations.
    - ii) Notify the US Coast Guard.
    - iii) If cargo is leaking from a tanker, follow vessel procedures for spill response which may include tank-to-tank transfers, lightering or determine the need for salvage. Sound all tanks, cargo and void.
    - iv) If water is leaking in a void compartment, pump water out with portable pump. Do not pump water if mixed with cargo.
    - v) When pumping the void compartments, maintain the vessel in stable condition. Contact the VML Operations for further assistance.
    - iv) If pumping the void compartments does not or will not keep the vessel afloat, move the tanker to a safe position and contact the VML Manager for further assistance.
    - v) Await advice from a US Coast Guard representative on a course of action to be taken and when to get underway.
    - vi) Drug and alcohol test all personnel on shift aboard vessel.
    - vii) Fill out the VML Standard Incident Report.
    - viii) Fill out US Coast Guard Form CG-2692 when a VML supervisor is present.
4. If the collision is with an aid to navigation:
  - a) Notify VML Operations.
  - b) Notify the US Coast Guard.
  - c) Document the damage, including photographs. Sound all tanks, cargo and void.
  - d) Drug and alcohol test all personnel on shift aboard vessel.
  - e) Fill out the VML Standard Incident Report.
  - f) Fill out Coast Guard Form CG-2692.
  - g) Get underway.
5. If the collision is with a structure:
  - a) Notify VML Operations.
  - b) Notify the appropriate person in charge (Lockmaster, Bridge tender, Dock master, etc.).
  - c) Notify the US Coast Guard if appropriate.
  - d) Document the damage, including photographs. Sound all tanks, cargo and void.
  - e) Drug and alcohol test all personnel on shift aboard vessel.

- f) Fill out US Coast Guard Form CG-2692 if appropriate.
- g) If the US Coast Guard is not notified, the vessel Captain or wheelhouse person on watch, the VML QI, and the appropriate person in charge will decide a course of action and when to get underway.
- h) If the US Coast Guard is notified, it will decide a course of action to be taken and when to get underway.

#### UNINTENDED GROUNDING/STRANDING

1. An unintended grounding/stranding includes one in which the vessel cannot get off the ground within 24 hours (2 tides), equipment damage occurs (includes possible sinking or environmental damage. In the event of a serious grounding, the person in charge must take action including, but not limited to, the following:
  - a) Sound general alarm if appropriate.
  - b) Instruct crew to put on life jackets or exposure suits, if appropriate.
  - c) Notify nearby marine traffic if grounding is in, near, or blocking a navigable channel
  - d) Notify VML Operations. If appropriate, VML Operations will notify the United States Coast Guard.
  - e) Inspect the tanker for damage. Sound all cargo and void tanks. Don chemical protective clothing and respirator if required.
  - f) If cargo is leaking from the tanker, follow the VML procedures for spill notifications.
  - g) If water is leaking in the void compartment, pump the water out with a portable pump. Do not pump water if mixed with cargo.
  - h) If pumping succeeds in floating the vessel, make temporary external repairs if possible and contact VML Operations for further instructions.
  - i) If pumping does not float the vessel, call VML Operations for assistance.
  - j) Determine if water is leaking into cargo compartments. k) If water is leaking into cargo compartments, call VML Operations for assistance.
  
2. A minor grounding is one in which the vessel can get off the ground with the initial attempt and no equipment is damaged. In the event of a minor grounding, the person in charge must take action including, but not limited to, the following:
  - a) Sound all cargo and void tanks. If no visible damage or hull leak is found, determine if the tanker can get underway in an hour or less.
  - b) If the vessel can get underway in one hour or less, report the incident during a routine traffic call.
  - c) If there is no visible damage to the tanker, but the vessel cannot get underway within one hour, evaluate the grounding and call VML Operations for assistance.
  - d) VML Operations will notify the US Coast Guard if appropriate.
  - e) Follow instructions from the Operations Manager for getting off ground. Such instructions include but are not limited to the following:
    - i) Wait for high tide.
    - ii) Obtain assist boat(s).
  
3. General procedures to follow in the event of a grounding include, but are not limited to:
  - a) Do not enter void compartments unless they are certified safe for entry by a designated Shipyard Competent Person, marine chemist, or a certified industrial hygienist.
  - b) Sound all cargo and void tanks.
  - c) Fill out Coast Guard form CG-2692, if applicable.

## 1.6.2 FIRE PREVENTION AND CONTROL

### A. Response Action for Reduced Explosion or Fire:

1. **Stop the product flow: act quickly to secure pumps, close valves.**

- Activate emergency shut down switches on self contained diesel pumps.
- Pull breakers/switches on electric pumps or equipment.
- Secure source of fuel flow if possible.

2. **Warn personnel.**

Enforce safety and security measures. If the fire is beyond the ability of the onboard personnel to control, all personnel will evacuate the vessel and stand off at a safe distance. If possible, secure the tanker by dropping it's anchor.

3. **Eliminate ignition switches, motors, electrical circuits and open flames.**

4. **Initiate fire control.**

- Small fires: Use dry chemical, CO, water spray or foam.
- Large fires: Use water spray or foam.
- use non-sparking tools and equipment
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of a tank.

5. **Notify local fire dept and VML Operations.**

Review [Table 1.2-7](#) for local or village phone numbers. State the extent of the damages and injuries and what assistance is required.

### B. Secondary Response Action:

1. Keep unnecessary personnel away.
2. Stay upwind, keep out of low areas.
3. Isolate hazard areas and deny entry.
4. Wear appropriate PPE.
5. Isolate for ½ mile in all directions, and particularly downwind when involved in a fire.

### C. In Case of Spill or Leak:

1. No flares, smoking or flames in hazard area.
2. Stop leak if you can do so without risk.
3. Use water spray to reduce vapors. Helicopters may be used if safe to do so.
4. Small spills: Take up with absorbent pads, sand or other non combustible absorbent material.
5. Large spills: Contact VML QI for assistance and activation of response personnel.

### D. Fire Hazards:

1. Heat, sparks, and flames may ignite a fire.
2. Flammable vapor may spread away from a spill.
3. Containers may explode in the heat of a fire.
4. Attempting to contain gasoline spills.

**E. First Aid:**

1. Move victim to fresh air: call emergency medical care if available.
2. If not breathing, give artificial respiration/CPR as appropriate.
3. If breathing is difficult, give oxygen.
4. In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
5. Remove and isolate contaminated clothing and shoes.

**F. Onboard firefighting equipment:**

1. VML chartered tankers will have SOLAS required firefighting equipment and personnel will be trained to STCW-95 standards. The vessel specific firefighting equipment will be provided to ADEC in the Spot Charter Packet prior to the vessel operating in state waters.

**G. Marine Firefighting:**

1. VML Chartered tanker crews are trained in firefighting using equipment onboard the vessels as described in F. above. Chartered tanker personnel meet STCW-95 firefighting training requirements.

## 1.6.3 DISCHARGE TRACKING AND SURVEILLANCE

### 1.6.3.1 VISUAL SURVEILLANCE

Spill surveillance and tracking will be conducted primarily by visual methods. Table 1.6-1 contains information regarding the estimated oil slick thickness based on visual observations of oil on the water.

**TABLE 1.6-2  
OIL APPEARANCE AND SLICK THICKNESSES  
NOAA 2006**

	Approximate Layer Thickness		Approximate Volume per Area	
	Mm	Inches	Liters/km <sup>2</sup>	Gallons/nautical mile <sup>2</sup>
<b>Barely Visible</b>	<b>0.00004</b>	<b>0.000002</b>	<b>50</b>	<b>40</b>
<b>Silver Sheen</b>	<b>0.00007</b>	<b>0.000003</b>	<b>100</b>	<b>75</b>
<b>First Color Trace</b>	<b>0.0001</b>	<b>0.000004</b>	<b>200</b>	<b>150</b>
<b>Bright Colors</b>	<b>0.0003</b>	<b>0.00001</b>	<b>400</b>	<b>300</b>
<b>Dull Colors</b>	<b>0.001</b>	<b>0.00004</b>	<b>1200</b>	<b>1000</b>
<b>Dark Colors</b>	<b>0.003</b>	<b>0.0001</b>	<b>3600</b>	<b>3000</b>

Potential surveillance platforms include the following:

- Bridge: Visual observations can be made from the bridge of the chartered tanker.
- Tug: The tug in attendance would be available for conducting visual surveillance, in addition to containment and recovery operations.
- Work Boats: These boats would be used for visual on-scene observations. Work boats may include the VML skiff stored on the tug vessel, Alaska Chadux response vessels, and/or third party boats available from villages.

- Aerial Flight Surveys: Chartered airplanes and/or helicopters would be brought in for aerial observation during daylight hours, weather permitting. The absence of direct sunlight, a high viewing angle, and low background brightness aid in visually tracking spill movement.
  - Aerial observations should include the collection of the following data:
    - Actual location of the discharge
    - Size of the slick
    - Thickness
    - Direction of travel from the vessel (trajectory)
    - Sea states and weather conditions
    - Potential impact on local resources in the path of slick
- Personnel or persons of opportunity located atop nearby hills, on tramways, high buildings or other elevated areas.

### 1.6.3.2 TRAJECTORY FORECASTS

Oil spill trajectory forecasting can be conducted by two primary methods.

NOAA provides trajectory forecasts of real time spill movement, evaporation, and dispersion using a computerized spill model, the 'Adios II program'.

***John Whitney, NOAA Scientific Support Coordinator***

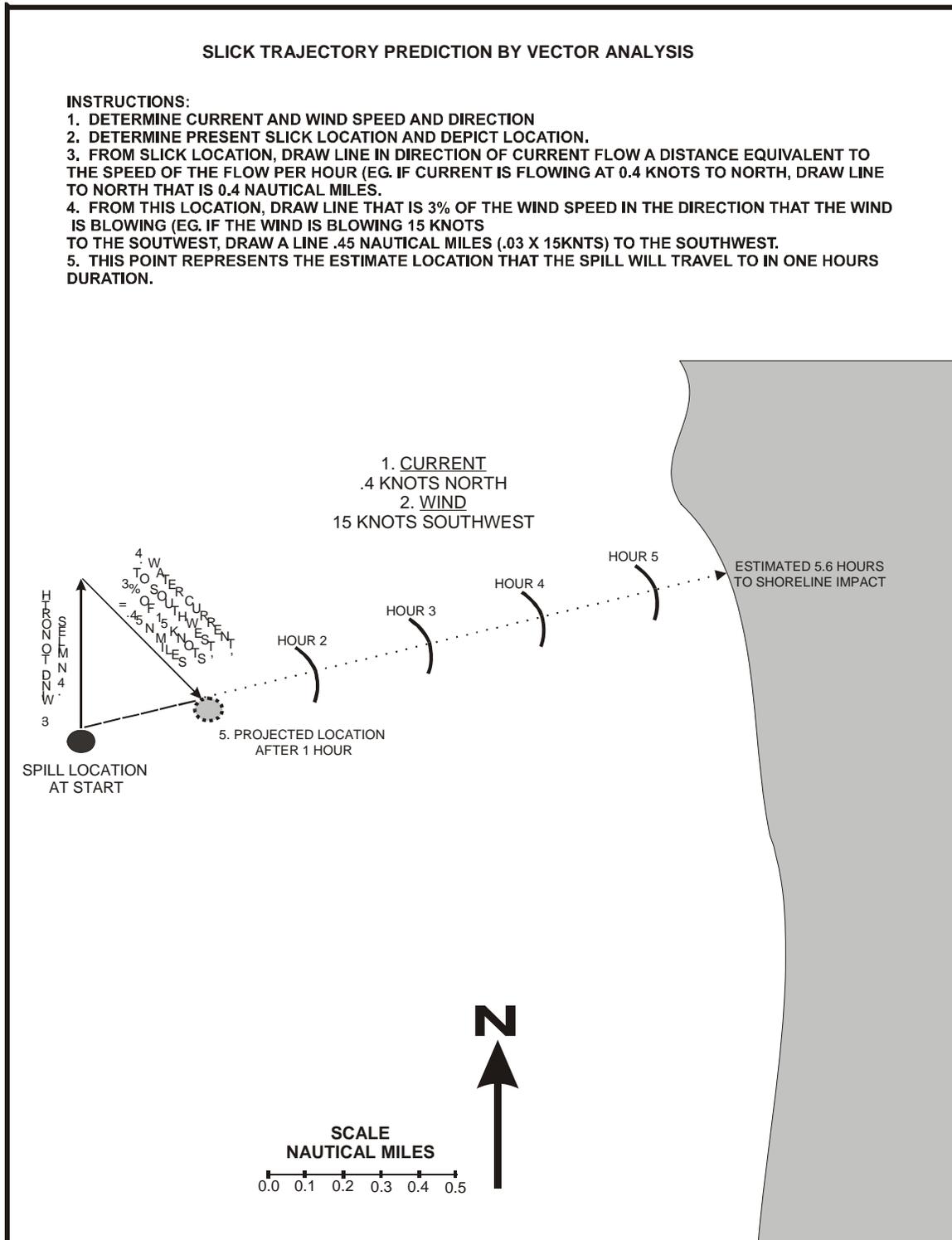
(907) 271-3593 office

(206) 526-4911 Seattle Dispatch (after AK hours)

(907) 440-8109 cell

***As a general rule, oil moves at 3% of the wind speed. Trajectory can be forecasted by calculating wind and current speed and direction vectors as depicted in Figure 1.6-1.***

**FIGURE 1.6-1  
TRAJECTORY USING THE 3 % RULE**



## 1.6.4 CONTAINMENT AND CONTROL OF OIL

See Section 1.6.4.6 for additional information on containment of gasoline spills.

If there is a small and limited spill of oil to the water surface, it may be possible to contain all of the spilled oil with sorbent boom. Sorbent boom may be deployed rapidly around the spill and absorbed by the sorbent material. Sorbent sausage boom may also be used in conjunction with, or as an alternative to, containment boom. Sorbent boom will adsorb light oil products into the boom, but are less effective as containment in some circumstances since there is an absence of a ballasted skirt.

For larger spills, each barge carries containment boom suitable for deployment around the chartered tanker by the barge crew in accordance with the APD&T Agreement for Final Compliance (See APD&T Certification Statement in Section 2.7). In sea states above the rated operating limits of the boom on the barges, deployment would not be possible due to safety considerations. If recovery operations are shut down due to weather, high wind and wave conditions would result in more rapid dispersion and evaporation than could be achieved by deployment and recovery actions in the less extreme environmental conditions. If a VML tug is not in attendance with the chartered tank vessel, containment operations will be completed by Alaska Chadux personnel and resources.

Additional containment boom is maintained by Alaska Chadux. All containment boom meets the requirements of 33 CFR 155 Appendix B. (See Section 3.6 of the Alaka Chadux Response Manual). For the most updated Alaska Chadux ORS equipment inventory, see [www.chadux.com](http://www.chadux.com)).

As of March 12, 2010, Alaska Chadux maintained the following containment boom:

- Harbor boom (20-26 inch), 48,600 feet
- River boom (8-12 inch), 5,000 feet
- Inflatable boom (44 inch), 600 feet
- Sorbent boom, 15,040 feet.

### 1.6.4.1 CONTAINMENT AT THE VML CHARTERED TANKER

The primary strategy of containment for a spill is to deploy boom around the discharging vessel. This would limit the spread of the discharged product and aid in consolidation of product, which in turn leads to an increase in the efficiency of recovery operations.

If a spill occurs during the loading or offloading of a vessel, boom may be deployed around the vessel utilizing pilings or other support structures for anchoring points. However, because of the danger of fire and fumes, it may be dangerous to concentrate spilled oil in the vicinity of the fueling platform. Use of fire hoses may be an effective tool to direct oil away from a dock.

Caution is advised before attempting to contain gasoline spills due to extreme fire and explosion danger. See Section 1.6.4.6 for additional information on containment of gasoline spills.

Secondary boom may be deployed behind the primary boom to contain any oil that escapes the primary boom. Containment boom operations at the tanker may require that a work boat be stationed to open and close the boom for boat traffic as required. With additional boom, product which has escaped the contained area around the tanker may be contained or controlled by downstream "U" Boom, "J" Boom, Deflection, Entrapment, and Exclusion booming techniques (see following sections).

#### **1.6.4.2 CONTAINMENT ON OPEN WATER – “U” AND “J” BOOM CONFIGURATION**

Typical open water containment operations involve “U” or “J” shaped configurations to divert oil slicks into recovery areas alongside vessels. These configurations can be maneuvered, opened or closed, to avoid pieces of debris or floating ice. With the “U” configuration, the free end of each leg of the boom is towed by a workboat into the wind and against the surface current. The slick will move into the boom and become concentrated in a thickening layer at the apex of the boom, where it can then be recovered with a skimming system from a third boat with storage system, controlled so as to reduce impact of a more sensitive area, or controlled and released in front of an entrapment boom configuration to facilitate recovery by a skimming system. [Figure 1.6-2](#) depicts typical “U” boom containment configuration on open water. [Figure 1.6-3](#) depicts typical “J” boom containment configuration on open water.

#### **1.6.4.3 DEFLECTION BOOMING**

Deflection booming is used to deflect oil away from a sensitive or other shoreline area. Deflection booming is conducted using containment boom held in place with anchor systems. In some cases (in particular, higher current rates), deflection boom can be cascaded in order to limit the segment lengths while achieving an overall effective length. [Figure 1.6-4](#) depicts typical deflection boom configuration in a river system. [See Figure 1.6-7 to calculate boom angles.](#)

#### **1.6.4.4 ENTRAPMENT BOOMING**

Entrapment booming is used to intercept oil that is moving with wind or current near the shoreline and to deflect this oil towards the shoreline into a pocket where the oil can be collected and recovered using a skimming system. Entrapment booming is conducted using containment boom held in place with anchor systems. As with deflection booming, entrapment boom may be cascaded to increase the overall length of the system. [Figure 1.6-5](#) depicts typical entrapment boom configuration in a river system. This figure also depicts a double entrapment system in a river with a chevron “V” boom in the middle of the river to divert oil to the entrapment configuration (can be achieved on narrow river systems). [See Figure 1.6-7 to calculate boom angles.](#)

#### **1.6.4.5 EXCLUSION BOOMING**

Exclusion booming involves anchoring boom between two or more stationary points to exclude oil from entering water intakes, marinas, lagoons and other sensitive areas. Many of these entrances or channels have tidal currents exceeding 1 knot or surf breaking waves in the opening. Under these conditions, booms should be placed landward from the entrance in a quiescent area of the channel, harbor, or inlet. Exclusion booms should also be deployed at an angle to the shoreline when possible to guide oil to an area where it can be recovered. In many cases, the deployment of a secondary boom behind the primary boom is possible and a preferred option. Exclusion booming of sloughs, harbors, or inlets may require that a workboat be stationed to open and close the boom for boat traffic as required by the US Coast Guard. [Figure 1.6-6](#) depicts typical exclusion boom configuration in a stream system.

Exclusion booming of estuaries or rivers, where sandbars are present, can pose problems in boom placement. Because high currents can be expected in entrance channels, boom placement should be attempted on the landward side of the entrance where current velocities drop. Sand bars commonly form in this area and should be avoided in booming. Booms are positioned to direct oil toward recovery area. If water currents across a delta are less than 1 knot, an exclusion boom should be deployed. The exclusion boom will have to be anchored at several locations, in the water as well on the shoreline. If possible, the boom should be placed seaward from the low tide line so that it will float throughout the full tide cycle. If the area requiring protection is too large, the boom should be deployed so that the delta above the mid-tide line is protected.

## 1.6.4.6 OTHER CONTAINMENT CONSIDERATIONS

### Gasoline Spills (including Av-Gas)

Extreme caution must be exercised when responding to flammable liquid spills (flashpoint of 80° F or lower) because of the increased potential for an explosion, fire, and injury. All of the gasoline products transported by VML are flammable. Gasoline spilled into water dissipates and evaporates rapidly, resulting in the potential for explosive vapors in and around the spill area. The type of response to a gasoline spill is at the discretion of the vessel master taking into account the safety of vessel personnel and shoreside populations, vessel stability and protection, size of the spill, threat of fire or explosion, and the consequences to environmentally sensitive areas.

If containment is not possible, an alternative strategy is to deploy boom ahead of the moving oil and deflect or divert gasoline away from sensitive areas, or away from areas where public health will be jeopardized by using boom in an exclusion or diversion configuration or by encircling the slick with the boom and allowing it to drift away from the vessel and/or populated areas. Sorbent boom may also be established, anchored in place ahead of the moving oil, and allowed to adsorb gasoline in a passive manner (without personnel attending the boom). This can be accomplished only if safety is not jeopardized. **In all gasoline spills in a port area, contact the local fire department immediately.** See Table 1.2-7 List of Local Authorities for local fire department contact numbers.

### Relative Current Speeds

Excessive loading is the result of increased current velocities having shifted the boom to nearly a right angle. As the current increases, the loading increases on the boom, ultimately to a point above its design buoyancy. At that point, the boom will begin to sink, bob on the water, tear apart, or a combination of all the above. Entrainment occurs when the surface current hits the boom at a speed of .7 knots or greater, creating a hydraulic plane upstream of the boom. As oil thickens at the headwave of the oil slick, droplets of oil are torn away from the headwave by the current and forced down the hydraulic plane and under the boom, surfacing down current behind the boom. For river systems, the relative current speed to the containment boom may be reduced by deployment of the boom at an angle to the current. Figure 1.6-7 depicts water currents and boom angles that may be used to reduce the relative current speeds to acceptable levels.

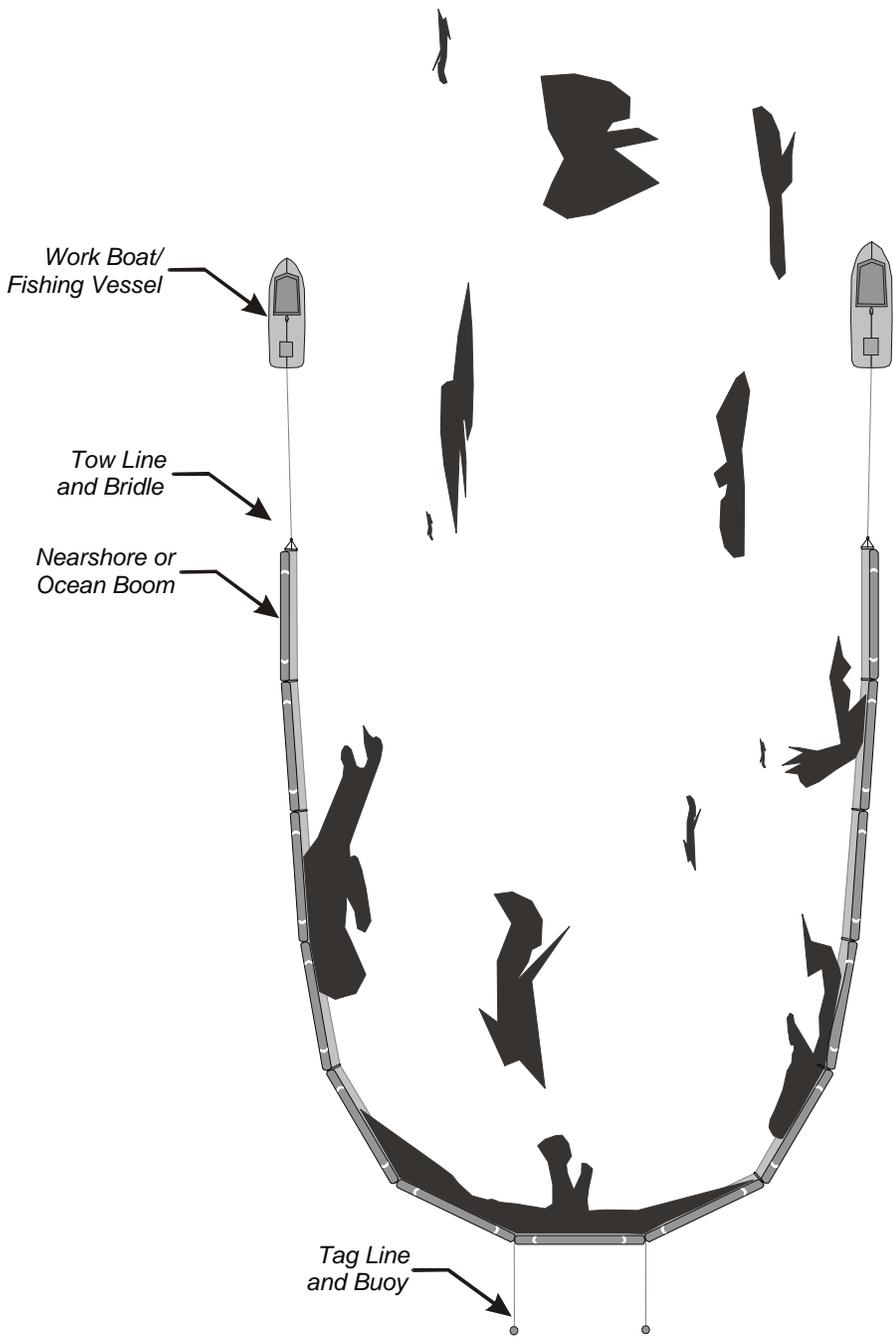
### Safety Considerations

- See above, Gasoline Spills.
- Ensure that the wave height and wind speed for the next 12-24 hours won't exceed the capabilities of the equipment or vessels used for the containment and recovery operations.
- Operations near fixed structures, barges, and other larger vessels should be avoided during moderate to heavy seas.
- Depending upon the product spilled and its sources, the response operation may need to be conducted far enough down wind to avoid exposing crews to hazardous concentrations of vapors.

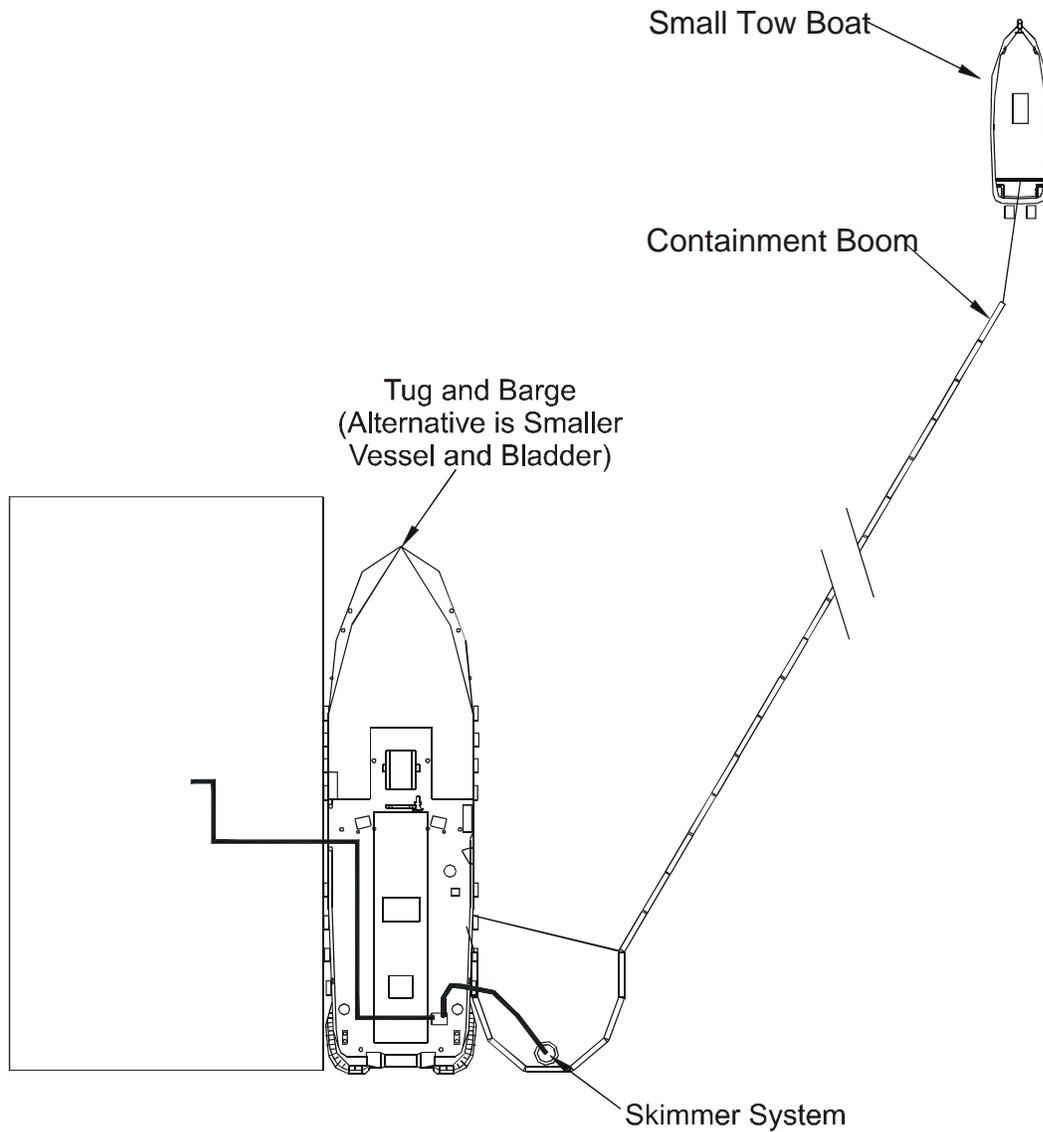
### **Other Vessels, Debris, Ice, and Tides**

Oil spill containment boom that is fixed in place by anchor systems and interferes with vessel traffic will need to be attended to ensure that the boom can be opened to allow normal vessel traffic to pass, if safe to do so while maintaining containment. Attendance and maintenance may be necessary to remove debris or ice that is contained by boom. Very large debris that is floating and moving toward fixed containment boom may need to be towed or moved from the path to avoid damaging the boom. Mobile containment boom operations will need to watch for debris and ice to maintain avoidance. In areas that are tidally influenced, consideration must be given to the possible tidal current and direction changes and how these changes will influence fixed containment boom. Fixed containment boom configurations may need to be modified during a tidal cycle.

**FIGURE 1.6-2**  
**“U” BOOM CONTAINMENT CONFIGURATION**

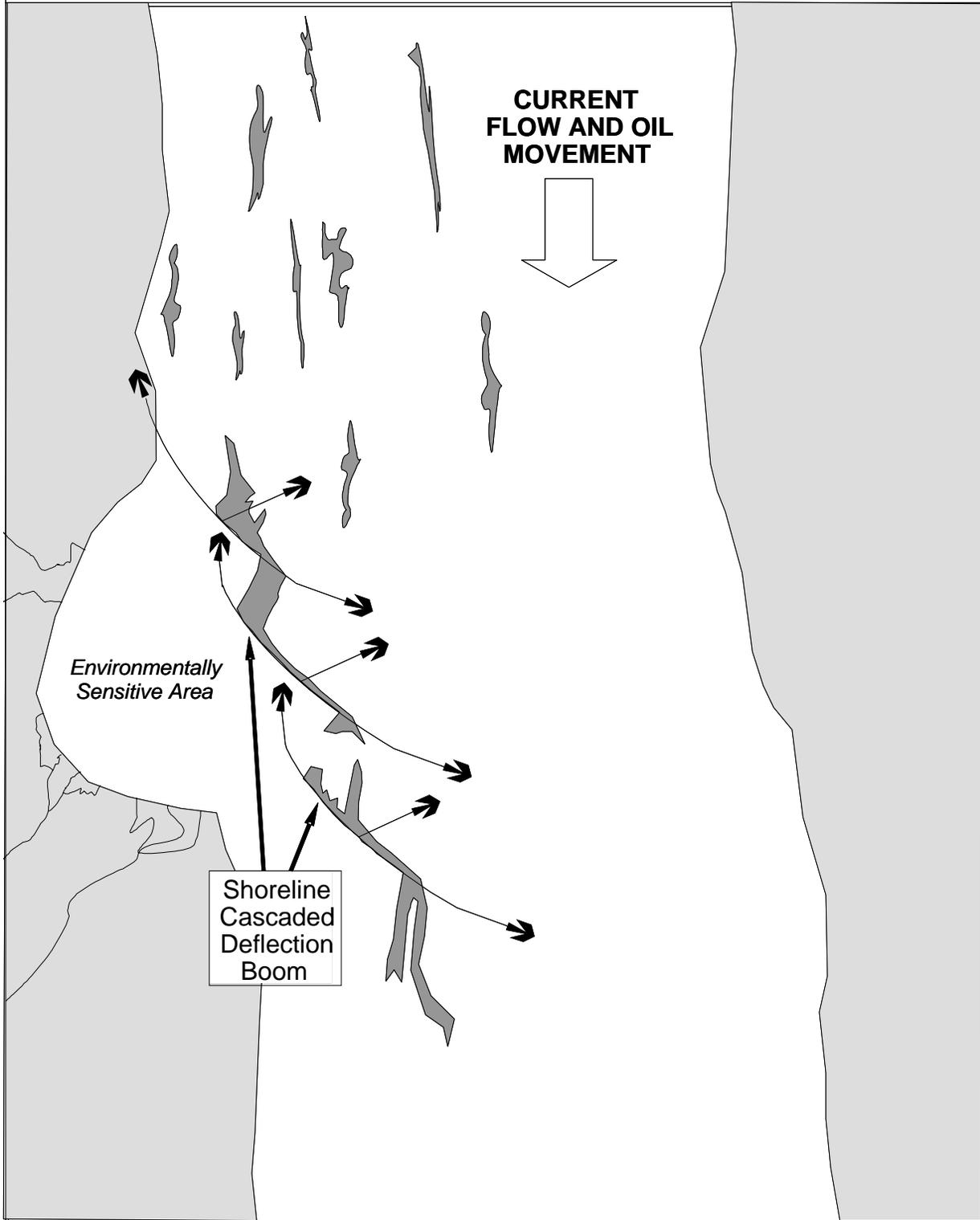


**FIGURE 1.6-3**  
**“J” BOOM CONTAINMENT CONFIGURATION**

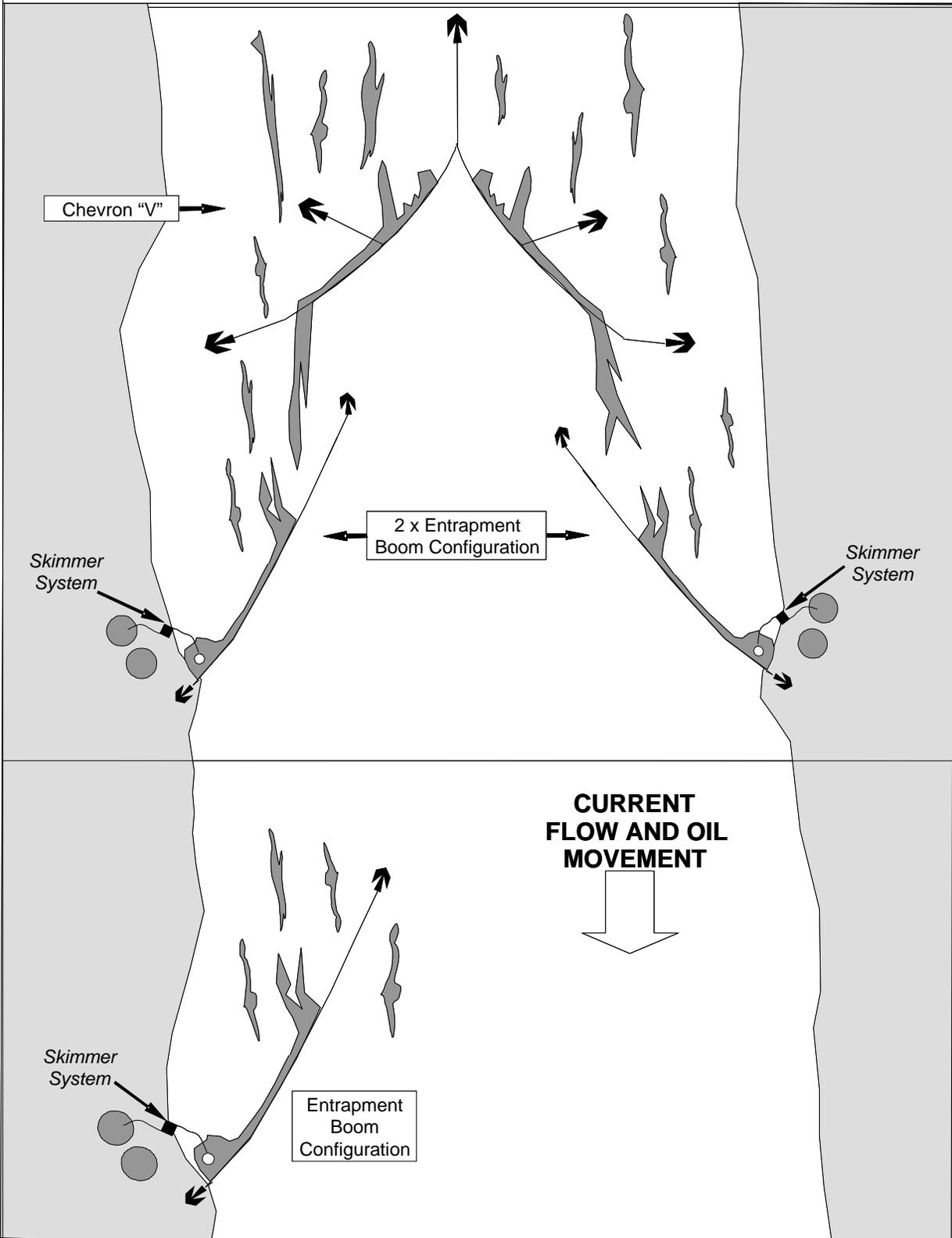


**FIGURE 1.6-4**

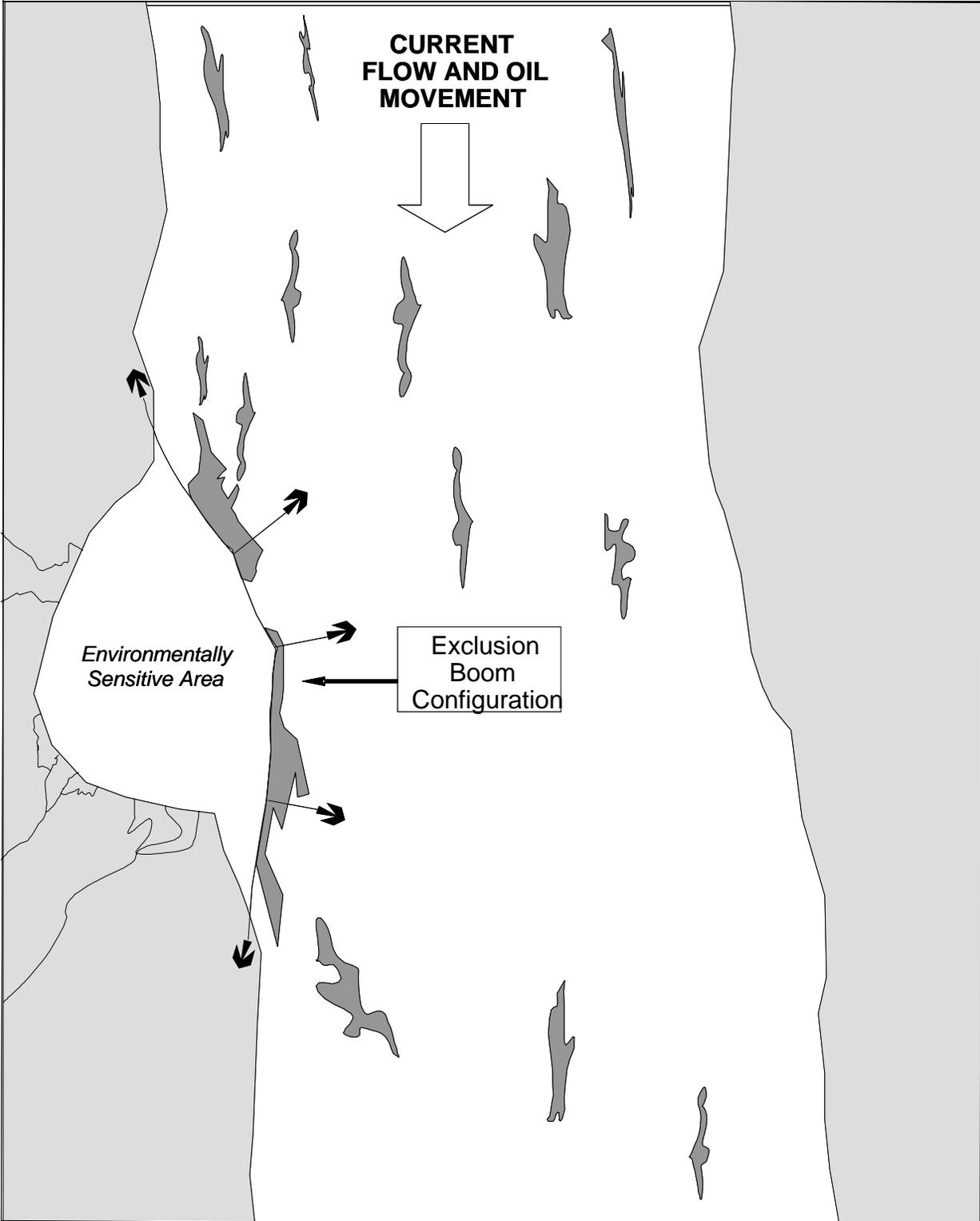
**CASCADE AND SHORELINE DEFLECTION BOOMING**



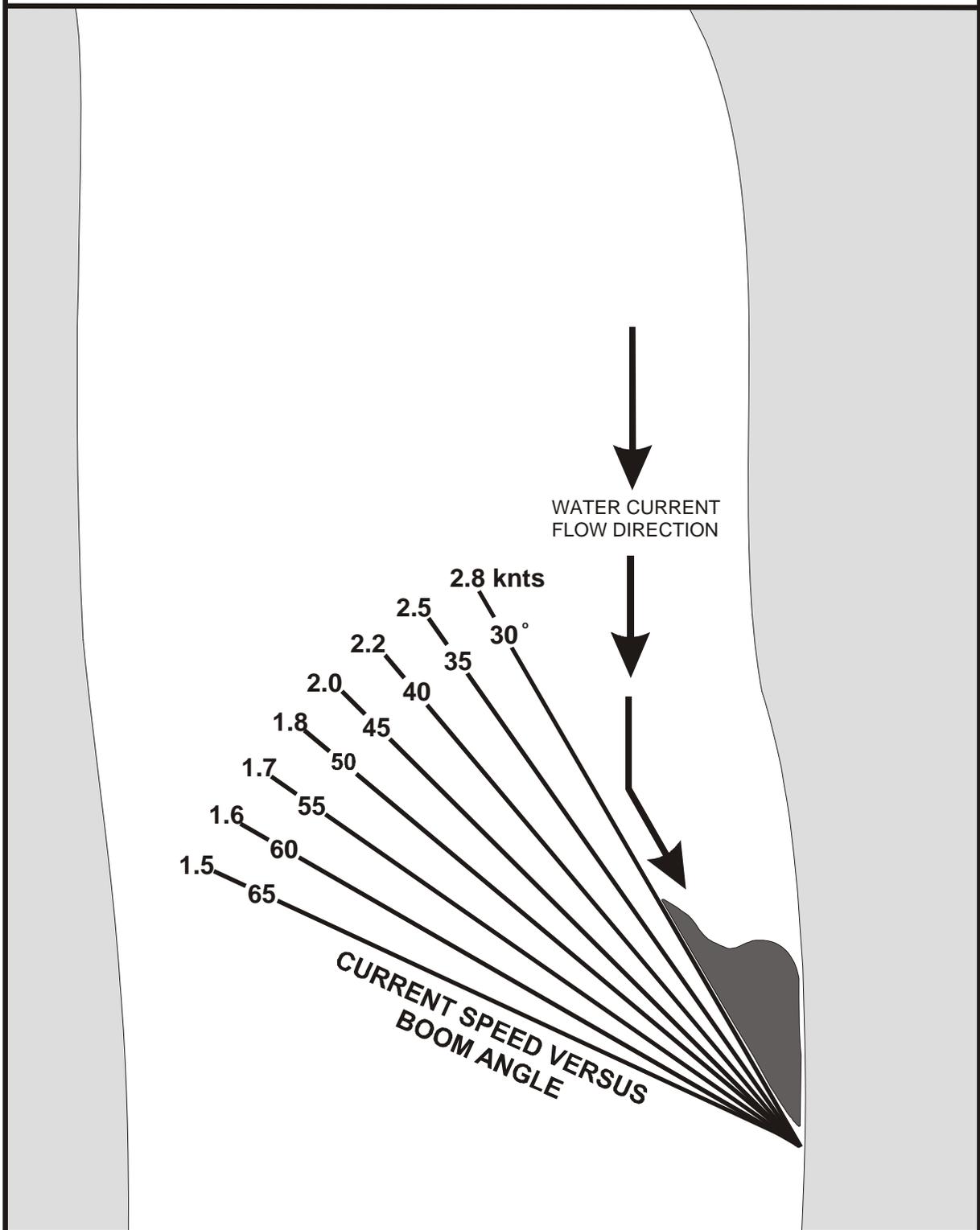
**FIGURE 1.6-5  
ENTRAPMENT BOOM CONFIGURATION IN A RIVER SYSTEM**



**FIGURE 1.6-6**  
**EXCLUSION BOOM PROTECTION- RIVERS**



**FIGURE 1.6-7  
WATER CURRENT AND CONTAINMENT BOOM ANGLES**



## Response Personnel

VML has trained response personnel to meet the RPS within the time frames prescribed, weather and other conditions allowing. Anchorage based VML personnel may augment the recovery effort if needed, and additional response personnel are available from Alaska Chadux Corporation.

## 1.6.5 PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS

### 1.6.5.1 IDENTIFICATION AND PRIORITIZATION OF ENVIRONMENTALLY SENSITIVE AREA

See Section 3.10.1

### 1.6.5.2 STRATEGIES FOR PROTECTING ENVIRONMENTALLY SENSITIVE AREAS

Environmentally sensitive areas and associated habitat are present throughout the Alaskan shoreline in which VML operates. Many of these areas can be significantly affected by an oil spill. The primary strategy for protecting these areas is to rapidly contain and control the spill in an attempt to mitigate long and short-term damage.

Strategies to protect environmentally sensitive areas:

- ❑ Stop the discharge at the source (see Section 1.6.1).
- ❑ Deploy containment boom around the source of the spill (see Section 1.6.4.1).
- ❑ Deploy boom in a configuration that protects the sensitive areas. Booming techniques include U Boom (Figure 1.6-2), J Boom (Figure 1.6-3), Deflection Boom (Figure 1.6-4), Entrapment Boom (Figure 1.6-5), and Exclusion Boom (Figure 1.6-6).
- ❑ Initiate recovery of entrapped oil through the use of skimmers and sorbents (see section 1.6.6).
- ❑ Contact Alaska Chadux for additional personnel and equipment resources.

Wildlife Coordinator (through Alaska Chadux Corp) or designee, after receiving knowledge of a spill and estimated amount, will:

- ❑ review the ADF&G Regional Habitat Management Guides and/or the ADF&G MESA maps,
- ❑ discuss the findings with the Unified Command including appropriate area residents with local knowledge and with the appropriate agency representatives listed in Table 1.2-6 List of Federal and State Agencies.
- ❑ use the information in Section 3.10.1 to determine the potential sensitive areas, wildlife and humans at risk
- ❑ Determine Environmentally Sensitive Areas (ESAs) that may be affected by a spill. Recommend review of the CRITERIA FOR RELATIVE-PRIORITY RATING (Section 3.10.3) to establish prioritization of sensitive areas and response actions to protect them.
- ❑ request the Unified Command approve the strategy and, if necessary, commit to contracting outside sources.
- ❑ request hazing permits as needed. Hazing to be conducted only by personnel (from Alaska Chadux) who are appropriately trained for hazing operations.
- ❑ request additional information – localized maps, charts, seasonal wildlife habitat locations.
- ❑ request wildlife capture equipment and expertise from Alaska Chadux, if applicable.
- ❑ Request information about areas of local concern from local officials (See Table 1.2-7 List of Local Authorities).

Use the above information to determine equipment required to protect sensitive areas and whether additional response resources are required. If additional resources are required, the QI/IC will contact Alaska Chadux to determine what equipment and personnel will be flown to the spill site.

### 1.6.5.3 CULTURAL RESOURCES

“Historic properties (also known as historic and prehistoric archaeological resources or cultural resources) may be encountered during field-based response activities. Historic and archaeological resources include a wide range of sites, deposits, structures, ruins, buildings, graves, artifacts, fossils, and other objects of antiquity. Caution should be used in any cleanup operation in order to not disturb or impact any historical or archaeological sites during response.

Because these heritage sites are irreplaceable, the Unified Command will have a site identification and protection program to help protect these resources. For spill responses where there is no Federal On-Scene Coordinator (FOSC), the Alaska Office of History and Archaeology (AOHA) will take the lead in working with the State On-Scene Coordinator and VML to help ensure that response activities do not inadvertently injure or destroy historic properties. Where appropriate, this will include establishment of an incident-specific Historic Properties Protection Policy, which will be signed by the Unified Command. For spill responses where there is an FOSC, the AOHA will work with the FOSC’s Historic Properties Specialist to help ensure that response activities do not inadvertently injure or destroy historic properties. The FOSC’s Historic Properties Specialist will also coordinate with other stakeholders, including VML and any cultural resources specialists working for you.

All field-based response workers, including workers from VML, will strictly adhere to any incident-specific Historic Properties Protection Policy. The policy will reinforce that it is unlawful to collect or disturb, remove, or destroy any historic property or suspected historic property. The policy will require field-based response personnel to immediately report any historic property that they see or encounter, to their supervisor in accordance with the incident-specific Historic Properties Protection Policy. In the absence of an incident-specific Historic Properties Protection Policy, field-based response personnel will be required to immediately report any historic property that they see or encounter to the Alaska Office of History and Archaeology (269-8721).”

**Background information:** Additional information on the protection of historic properties during spill response may be found on the internet at: <http://www.achp.gov/NCP-PA.html> (Programmatic Agreement on Protection of Historic Properties During Emergency Response Under the National Oil and Hazardous Substances Pollution Contingency Plan) and <http://www.akrrt.org/plans.shtml> (Alaska Implementation Guidelines for Federal On-Scene Coordinators for the Programmatic Agreement on Protection of Historic Properties During Emergency Response Under the National Oil and Hazardous Substances Pollution Contingency Plan).

### 1.6.6 RECOVERY STRATEGIES

Oil that might be contained within the secondary containment area (ecology coaming and at fuel headers) will be transferred to slop tanks by means of a transfer pump. Absorbent pads and booms will be used for containment and final recovery operations once the free oil has been removed.

Recovery of spilled oil from the water surface will be conducted via the following strategies:

- Where oil is contained at the tanker using containment boom ([Section 1.6.4.1](#)), a skimmer will be used to recover the contained oil. Oil will be pumped from the skimmer into (1) Slop tanks if available (2) Empty or slack volume in undamaged cargo tanks, (3) VML tank barge, (4) Portable Bladders from Alaska Chadux, and/or (5) Empty void spaces, if approved by the marine engineer. The Tankerman may be able to transfer cargo between undamaged barge tanks to increase the available storage space on the tanker.

- Oil that is contained via U or J Boom containment operations ([Section 1.6.4.2](#)) will be recovered by small skimming systems maintained by Alaska Chadux. The choice of the skimmer will be dependent on the vessel size and the specific characteristics of the oil. Vitus Marine only carries light petroleum products as cargo, the most effective type of skimmers for this type of oil are suction, weir, oleophilic drum/brush and rope mops. Additional environmental considerations to be made in the selection of a skimmer include wind, wave, current and temperature. Each of these conditions generally will reduce the performance of the skimmer. [See Section 3.6.2 of the Alaska Chadux Response Manual contained in Appendix H](#) for specific and detailed information on the skimmers maintained by Chadux. In both U and J configurations, the skimmer will be deployed into the apex of the boom and oil will then be pumped into portable storage bladders.
- Spilled oil that is contained and entrapped using the entrapment configuration ([Section 1.6.4.4](#)) will be recovered by small, portable skimming systems such as the manta ray skimmers and pumped into portable storage tanks that will be deployed near the entrapment boom and skimmer operation.
- Particularly for low viscosity refined products, spilled oil may also be recovered by sorbent boom, rolls, pads, and other materials deployed on the water surface. The contaminated sorbents will be collected as a solid waste and temporarily stored in open top drums and/or polyethylene waste bags.

The most updated information on skimming systems maintained by Alaska Chadux can be found in Appendix H of this plan.

#### **Factors that may impact the efficiency of the oil recovery equipment.**

1. Mobilization times for equipment will vary according to weather conditions, safety considerations for crew and vessel, and possible distance to a safe harbor. [See Section 1.5.2](#). Longer mobilization times will result in increased spreading of oil on the water surface, thus reducing the concentration of oil and resulting in a reduced effectiveness of containment and skimming operations.
2. Elevated wind and sea states can reduce the effectiveness of skimming operations. Fuel transfers are discontinued at the discretion of the vessel Captain and Shoreside PIC when wind speed or sea conditions pose an increased risk.
3. On-water operations are hampered by periods of darkness which may reduce skimmer effectiveness during the night time.
4. The efficiency rates of skimmers can be reduced during inclement weather and water conditions. Elevated sea states may increase the relative amount of water recovered by weir skimmers.
5. VML handles only Group I, non-persistent products with low viscosities; these products have a rapid spreading rate that often results in thin oil thicknesses.
6. Crews would work continuously until a recovery operation was complete or until additional response personnel from Alaska Chadux arrive on-site to relieve the crew. During periods of darkness, only response vessels with sufficient deck lighting and navigation instruments will be used. VML tugs are equipped with high power sodium lights. Minimum lighting requirements will meet or exceed those required by federal regulation for the type of vessel. VML requires this lighting on any tug, chartered vessel, and response vessels that will operate during periods of darkness and low visibility. Shore based containment and recovery operations will require sufficient portable lighting to provide a safe work environment. If darkness prevents the effective containment and recovery of oil, this period of time should be used to perform equipment maintenance, staging of resources, resupply of vessels or any other activity that can be safely performed.
7. Downtime is estimated at approximately 15% loss due to mechanical breakdowns.
8. Debris could be bagged and stored if contaminated, if not contaminated should be removed or beached above high water line.
9. The presence of ice may preclude effective deployment of skimmers. VML chartered tankers may encounter pack ice during the autumn and winter months. [See Section 2.4](#).

## 1.6.7 DAMAGED TANK TRANSFER AND STORAGE

### A. The procedures for transferring fuel from tank to tank

The transfer will occur within the piping system of the vessel. If a situation arises where this is impossible, VML Chartered Tankers have access to portable lightering pumps and transfer hoses through a contract with a Salvage and Marine Fire Fighting provider as required by USCG regulations.

Follow the vessel specific transfer procedures contained in the tanker's Vessel Response Plan.

### B. Pumps, hoses and fittings for transferring oil are compatible with the type of oil anticipated. All tankers have on board sufficient hose for the transfer of cargo to another vessel or to shore based storage tanks. In the event that product from damaged tanks, and/or recovery operations cannot be safely stored on board the tanker itself, a tank barge will be sent with sufficient capacity to lighter the stricken tanker's cargo. Based on a review of the nearest tank barges and their capacities, the IC will contract a suitable barge to the spill site. Potential transit times are estimated in Table 1.5-2.

## 1.6.8 RECOVERED OIL TRANSFER AND STORAGE

Recovered oil and water mixtures will be transferred from the skimmers to the temporary storage devices by the pumps that are integrated into the skimming systems. Oil types transported by VML are low viscosity oils and are not likely to emulsify or weather to high viscosity liquids that cannot be pumped by standard positive displacement or centrifugal pumps. Additional transfers, if necessary, will be performed using Alaska Chadux pump systems described in the Alaska Chadux Response Manual, Section 3.6.

Recovered oil and water mixtures will be temporarily stored in the following storage devices:

- Slop tanks on board the vessel.
- Barge or other onshore Locations.
- Empty vessel tanks, if available and not damaged nor at risk of damage.
- Like cargoes can be concentrated, freeing up tank space which can be used for storage. Sacrifice cargoes by mixing to avoid a spill or for storage of spilled product.
- Transfer cargo to another barge/vessel to free more space.
- Alaska Chadux resources
  - Portable Towable Storage Bladders
  - Other Storage Bladders
  - Portable Collapsible Tanks
  - Drums

Alaska Chadux temporary storage resources can be found in their response manuals at Appendix C. As of Mar 19, 2010 Alaska Chadux maintained the following temporary storage devices:

- Towable Bladder Systems:
  - 6,635 gal/158 bbl.: 1 system, 6,635 gal/158 bbl total capacity
  - 6,600 gal/157 bbl.: 3 systems, 19,800 gal/471 bbl total capacity
  - 5,000 gal/119 bbl.: 2 systems, 10,000 gal./238 bbl total capacity
  - 2,500 gal/59 bbl.: 2 systems, 5,000 gal./119 bbl total capacity
  - 1,250 gal./30 bbl: 2 systems, 2,500 gal./59 bbl total capacity
- Other Bladder Systems (land):
  - 20,000 gal./476 bbl: 6 systems, 120,000 gal./2856 bbl total capacity

- 10,000 gal./238 bbl: 4 systems, 40,000 gal./952 bbl total capacity
- 2,500 gal./59 bbl: 6 systems, 15,000 gal./354 bbl total capacity
- 1,000 gal./23 bbl: 1 system, 1,000 gal./23 bbl total capacity
- Fastanks (2,400 gal/57 bbl): 12 systems, 28,800 gal./684 bbl total capacity
- Fold-A-Tanks ( 1,585 gal/37 bbl): 2 systems, 3,170 gal./74 bbl total capacity
- Fold-A-Tank (600 gal/14 bbl): 1 system, 600 gal./14 bbl total capacity

ADEC may authorize the decanting of hydrocarbon contaminated water when it is necessary to minimize environmental damage resulting from an oil spill. The Responsible Party (RP) must apply for authorization to decant in each location that it is deemed necessary. An Oil Spill Decanting Application/Authorization Form can be found using the ADEC Alaska Oil Spill Response Permit Tool located at [www.dec.state.ak.us/spar/perp/permits/](http://www.dec.state.ak.us/spar/perp/permits/). Verbal approval can be obtained from ADEC, however, it must be followed up with a written application as soon as possible.

Decanting will only be authorized when it is essential to the continued recovery of oil and ADEC has determined that additional environmental damage will be minimized by decanting. Decanting will not be authorized for non-emergency activities.

If decanting is authorized, VML will

- discharge decant water into containment areas only
- stop decanting operations when a visible sheen is detected in the discharged water
- maintain a 20% water bottom in decant tank, if using multiple tanks in series, maintain 20% water bottom in the last tank.
- follow specific requirements of ADEC's Oil Spill Decanting Authorization

### **1.6.9 TEMPORARY STORAGE AND ULTIMATE DISPOSAL OF WASTES**

Any oil recovered, or water remaining in damaged tanks will be off loaded to a suitable tank barge or tank farm facility for storage. Ultimate disposal treatment of those liquids will be done at an appropriate shore based facility these include storage tanks at the Bristol Alliance Fuels facility (see 3.8.1 contract between VML and BAF) and the receiving facility through agreement contained in the delivery contract. VML operates vessels suitable and certified to transport liquid and solid petroleum contaminated material to appropriate holding sites in Alaska.

State laws require that the responsible party collect and remove any oil and contaminated debris and/or soil that has resulted from an oil discharge. ADEC is responsible for making decisions regarding how debris disposal will take place. As part of the spill response management operations, the Planning Section of VML's ICS will develop a plan for recovered oily wastes management and disposal and will submit this plan to the Unified Command for approval.

The State Lead Permitting Agency for disposal is ADEC (See Table 1.2-6). Any disposal activities that take place at or near navigable waters also require USCG approval by the Federal On Scene Coordinator (FOSC) through the Unified Command. Contacts for these agencies are listed in Table 1.2-2 of this plan.

### **Definitions**

Oily debris may include: sorbent pads/boom, protective clothing/gear, soil, sand, rocks, logs, kelp, plastics, mousse, oil/water mixtures and animal carcasses (see 1.6.10 for carcass removal requirements).. Disposal methods for oil and oily debris include: reuse/recycle, landfill, incinerate, use in the production of asphalt, bioremediation treatment, and thermal energy recovery. Facilities authorized for these disposal options are listed in the tables at the end of this section.

Oily material may be classified as dangerous or extremely hazardous waste upon spillage because of its toxicity, persistence, carcinogenicity and/or flammability. As oil weathers and degrades, it may lose some toxicity and be downgraded to solid waste. This distinction must be recognized during an oil spill cleanup

operation as material that is collected in the beginning of a cleanup operation may be designated as a dangerous or extremely hazardous waste while that which is collected later may be designated as solid waste. Continued sampling and testing of the oily material is required to determine the appropriate disposal method throughout the cleanup operation.

For the liquids recovered from a discharging vessel or related recovery operations, the initial temporary storage will be available from either the tanks and/or voids of the tank barge/vessel—or the tanks and/or tank trucks from an on shore facility for a spill occurring at a facility. For a spill at a remote location, portable storage bladders, which are air transportable, are available from Alaska Chadux (See Section 3.6 of the *Alaska Chadux Response Manual* for information on that equipment).

Additional debris encountered may include; seaweed, sticks, sorbent materials, protective clothing, shoreline vegetation and other misc. debris. All barges carry open top storage drums and plastic storage bags. Oiled debris will be stored in these containers, and shipped to a suitable treatment facility, as listed in this section.

Material suitable for constructing temporary storage areas are available through commercial vendors in Alaska (i.e. Polar Supply, Anchorage). These materials can be transported by air to a spill site to augment local materials. All temporary storage will be implemented following the ADEC Streamlined Cleanup Program Guidance, November 2003. A copy of this document is kept on file at the VML Anchorage office.

## **RECOVERED OIL**

Reuse and/or recycling are the preferred disposal methods for oil recovered from surface waters during recovery operations. However, oil that has been removed from surface waters is frequently contaminated with water, sand, plants, and plastics and must be treated or processed before it can be reused as a fuel oil or other petroleum. Excess water needs to be removed as it increases the volume of material that has to be transported and can also cause problems for disposal facilities. An oil/water separator (field fabricated or from third party) or vacuum truck (third party) can be used to remove the excess water from the recovered oil.

**VML intends whenever possible to carry any contaminated fuel to the Dillingham terminal, where the off-spec fuel can be barged to Anchorage and then trucked to the refinery in North Pole to be re-injected into the refining stream. Recycling fuel in this manner is preferred to other disposal methods.**

Recovered oil should be stored in sealable containers such as 55-gallon drums, portable pillow tanks/bladders, empty fuel storage tanks, tank trucks, barges, or any other available container that can be sealed to prevent spillage. These containers can then be taken to lined and/or bermed interim storage sites. . These containers are available from many sources including Alaska Chadux (See Section 1.6.8 and Appendix C of the *Chadux Response Manual*) , VML response resources (See Table 3.6-1) , APD&T Operating members and commercial sources. The availability of these storage devices is dependant on several factors including storage devices being used on other response operations, distance of available barge of opportunity from spill site, and commercial operations. The storage devices are either dedicated to spill response or are in commercial use. As such, the storage devices are maintained in an operable and ready condition. VML maintains or has available under contract within the region of operation sufficient storage equipment in accordance with 18 AAC 75.440.

### 1. Small spills

Oil and oil / water mixtures recovered from small spills in or adjacent to either marine equipment, waterfront facilities or terminals, will be pumped into used oil barrels or tanks. All oil-saturated sorbents or

debris will be placed into open top 55 gallon storage drums and then sealed. All such materials, including liquids, will then be transported to Anchorage and forwarded to an appropriate facility for disposal.

## 2. Large spills

Oil and oil/water mixtures recovered from large spills will be pumped into selected barge tanks, other barges, bladders, or shoreside tanks. Oil-saturated sorbents or debris will be initially collected in polyethylene bags which can be placed into open top 55-gallon storage drums and then sealed. Oil saturated solids may also be collected and transported in lined super sacks, lined roll off containers, and lined dump trucks. Oily solids may also be temporarily stored in lined pits, where constructed in accordance with ADEC guidelines (See Appendix J) and approved by the Unified Command. All such materials, including liquids, will then be transported to Anchorage and moved on to an appropriate facility for disposal.

### **VESSEL STORAGE**

All vessels have several cargo storage tanks some of which may be empty and can be used as temporary storage.

Cargos will be mixed when necessary to avoid a spill or for storage of spilled product.

All vessels have air voids located in the bow and stern rakes, these can be used as needed temporarily for contaminated fuel or debris upon the approval of a marine architect.

Adequate cargo tank space will be provided at all times on all vessels covered by this plan for storage of at least ten (10) percent of the two (2) largest cargo tanks on each vessel.

### **PROCESSING OF RECOVERED OIL**

All fuel oils, diesels, and gasoline are tested and reused as follows:

1. Diesel oil is reused as fuel for tugs, pumps, heavy equipment, and furnaces.
2. Gasoline will be reused in vehicles, pumps, gensets, etc.
3. Vitus Marine and the City of Dillingham have in place in their shops and warehouses used oil furnaces which provide a requirement for used oil or contaminated oil not otherwise usable. Potentially all fuel oils generated by a failure or spill could be consumed by PFA or the City of Dillingham.
4. Water separated from the oil/fuels will be transferred to separate tank/tanks, tested, and treated as necessary. After the water has met all state and federal requirements it will be released into the environment as approved by the regulatory agencies.

### **OILY DEBRIS**

Oily debris that has been collected during cleanup operations must be tested to determine appropriate disposal methods. Oily debris includes oil-contaminated soil, sand, logs, and recovery materials such as sorbents and oil mops. Oil-contaminated soil or sand can often be reprocessed for use in asphalt production. Oil-contaminated soil and recovery materials can also undergo bioremediation depending on their content. Oil-contaminated recovery materials can be incinerated or re-used by thermal recovery facilities. Licensed facilities for each of these disposal processes vary by location and type of material that is accepted. Facilities authorized for these disposal options are listed in Tables 1.6-3 Oil Recycling Facilities and 1.6-6 Incineration Services at the end of this section.

Oily debris should be segregated (oiled versus non-oiled) and labeled appropriately as it is collected to minimize the amount of debris that has to be disposed of in a landfill rather than recycled or reused. Beach monitors and cleanup personnel will be responsible for ensuring segregation.

1. All contaminated material/debris will be recovered and stored in leak-proof containers which could be 55 gallon drums, plastic bags, super sacks, inside the response boat, or large palletized/plastic lined boxes and then shipped via VML equipment to Anchorage where they could be disposed of as follows:
  - a. A pit will be fabricated and lined with an approved liner in accordance with ADEC Streamlined Cleanup Program Guidance, November 2003 (See Appendix J). This bermed pit will have an entrance/exit ramp over the berm, allowing access.
  - b. All earthen material will be placed in the contained space and by periodical "stirring", allow natural biodegradation to take place (with ADEC approval).
  - c. After biodegradation has taken place in the plant-type materials, they will be removed to a fire pit and after the proper burn permits have been received, the material will be incinerated in accordance with ADEC Contaminated Sites approval.

## **INTERIM STORAGE**

Interim storage sites located on land require approval of the Unified Command and local health authority. Interim storage sites will be designed to prevent leakage and human contact. Sites should be bermed and lined with appropriate liner material (See ADEC Streamlined Cleanup Program Guidance located in Appendix J). Appropriate liner materials for temporary storage areas can be transported to a spill site by air or vessel. The sheets should be placed on a sand layer or an underfelt thick enough to prevent piercing. The edges of the sheets must be weighted to prevent damage by wind. When the oily debris is taken from the interim storage site, the ground protection and any surrounding contaminated soil must also be removed for disposal or treatment. To the maximum extent feasible, the interim storage site is to be returned to its original condition.

## **CRITERIA FOR TEMPORARY STORAGE LOCATIONS**

Before designating a temporary oiled material and recovered oil storage site, consideration should be given to the following;

1. Are there drinking water sources nearby? (No closer than 100 ft to Class C or 200 ft to Class A or B Water Supplies)
2. Are there sensitive receptor areas nearby, i.e. marshes?
3. Are wildlife present, especially scavengers?
4. Are humans likely to transit the area? Must minimize public access.
5. How long will the material be stored at the site? Shorter than 180 days, must meet ADEC Short Term Stockpiling guidelines. Longer than 180 days, must meet ADEC Long Term Stockpiling Guidelines.
6. Is access by vehicles and/ or vessels suitable after rains?
7. Have landowners and agencies reviewed site choice and approved?
8. Have appropriate regulatory permits been applied for and acquired?
9. Is there a potential for a storage area failure to contaminate sensitive areas or wildlife habitat?
10. Will the site be effected by extreme high tides?
11. Refer to ADEC Streamlined Cleanup Program Guidance, November 2003.

## **ON-SITE INCINERATION**

On-site incineration of oily debris requires approval by the ADEC, the local air pollution control authority, and the local fire department. Best technology must be employed to reduce air pollution. Fires must be attended at all times. See Table 1.6-6 for a list of approved incineration services.

Vitus Marine Aleknagik has a used oil burner for disposing of a limited quantity of recovered oil.

## **NON-OILY WASTE DISPOSAL**

Arrangements will be made with local municipalities and villages for non-oily material disposal, such as sewage and domestic refuse will be made as conditions dictate.

## **FINAL DISPOSAL**

A sample Incident Disposal Plan has been written to identify suitable treatment and disposal sites. The plan includes pre-designated interim storage sites, segregation strategies, treatment and disposal methods for each type of debris. The plan includes a list of facilities available for treatment and disposal of oily debris. This plan is a guide and each incident must be evaluated to achieve an appropriate and effective combination of disposal methods.

**SAMPLE INCIDENT DISPOSAL PLAN**

This Incident Disposal Plan is written at the request of the US Coast Guard, EPA and the ADEC. Vitus Marine, LLC. (hereafter referred to as VML) will recover the maximum feasible amount of (product type) oil spilled during the \_\_\_\_\_ (incident name) from (area description). In addition, an unknown quantity of contaminated solid debris will be recovered during the cleanup.

VML will abide by all applicable federal, state and local laws and regulations in implementing this plan.

**DISPOSAL PLAN FOR \_\_\_\_\_(incident name)**

**A. SAMPLING AND TESTING:**

1. Sampling of contaminated debris and soil/sand will be accomplished by the following methods: (description of sampling procedures, photographs)
2. Testing procedures to be utilized are as follows: (description of testing methods)
3. The result of the testing is as follows: (description of quantity and type of material)

Copies of the lab analysis of samples is included as attachment # \_\_\_\_\_ and is certified as true and correct to the best knowledge of VML, by the signature of this plan by \_\_\_\_\_(representative of VML).

**B. INTERIM STORAGE**

1. Interim storage has been designated at \_\_\_\_\_(number) sites. They are (name, address or description of each location):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

with the approval of \_\_\_\_\_(name of local health department representative). A copy of the approval/agreement letter is included as attachment # \_\_\_\_\_.

2. Interim storage of oily debris will be held at \_\_\_\_\_(site names/locations) for no more than 180 days. The sites will be designed to use the best achievable technology to protect the environment and human health. ADEC Streamlined Cleanup Program Guidance, November 2003 will be followed regarding criteria for construction of temporary contaminated waste stockpiles.

(Include, as an attachment, the following information for each location used as an interim storage site.)

3. The \_\_\_\_\_(site name/location) interim storage site will be protected from contamination, and will protect human health by the following protective measures:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. The site will be secured from intrusion and free public access by \_\_\_\_\_(security system, fence, 24 hour security personnel, etc). It is accessible by \_\_\_\_\_(road, air, water) via \_\_\_\_\_(directions, location compared to site cleanup operations). The proximity

- to living and working areas of \_\_\_\_\_(town, community) is \_\_\_\_\_(distance), and the area is not considered an endangered species habitat.
5. Ground water measures \_\_\_\_\_(# meters down) through \_\_\_\_\_(soil type ie; clay, bed rock, silty loam, etc.) and surface water runs off via \_\_\_\_\_(sewer system, drainage ditch, creek, etc.) into \_\_\_\_\_(body of water, if applicable).
  6. The site will be bermed and lined with \_\_\_\_\_ liner material \_\_\_\_\_ # millimeters thick, without joints, placed on \_\_\_\_\_(sand, underfelt) of a thickness of \_\_\_\_\_ (# millimeters thick) with the edges weighted with \_\_\_\_\_(stones, soil, etc.) and with a reinforced access area of \_\_\_\_\_(how? packed sand, loading dock, etc.) for vehicles. (visqueen, tarps, etc.) will be used to protect the material from rain, and storm water/runoff and will be in place before material will be transported to the site.
  7. Following the removal of the last of the debris at \_\_\_\_\_(site names), the area will be returned, to the maximum extent feasible, to its original condition (and background contamination if applicable) as required by ADEC approval.

#### C. RECOVERED OIL

1. Recovered liquid oil will be transported by \_\_\_\_\_(name of transporters), using the following type of transport vehicle \_\_\_\_\_ with all applicable manifests, labeling, and placarding.
2. The liquid oil will be transported to \_\_\_\_\_(name and location of refinery or recycling facility) for \_\_\_\_\_(process to be used, ie; recycled, refined, processed).

#### D. HAZARDOUS WASTE

(Include the following information for each type/location of treatment/disposal to be used for material which is designated as dangerous or extremely hazardous.)

1. The \_\_\_\_\_(type of material, ie; contaminated wood, soil, plastics, etc.) oily material that has been designated as a \_\_\_\_\_(dangerous or extremely hazardous) waste, is to be transported by \_\_\_\_\_(name of transporters), by \_\_\_\_\_(type of transport), with all applicable manifests, labeling, and placarding. This \_\_\_\_\_ material will be transported to \_\_\_\_\_(name and location of facility), to be \_\_\_\_\_(disposal option).

#### E. SOLID WASTE

(Include the following information for each type of treatment/disposal.)

1. \_\_\_\_\_(type ie; gravel, soil, sand) debris has been approved through appropriate testing for \_\_\_\_\_(disposal or treatment type) at \_\_\_\_\_(name of facility) which is located \_\_\_\_\_(address, proximity to interim storage or cleanup site). This \_\_\_\_\_(facility, site) has storage capacity to hold the \_\_\_\_\_(type) debris for the amount of time required to completely \_\_\_\_\_(recycle, treat, burn, incinerate, landfill) the amount generated during \_\_\_\_\_(name of incident) \_\_\_\_\_(product spilled) spill cleanup effort.
2. Approval and acceptance of the \_\_\_\_\_(type) material is included as attachment # \_\_\_\_\_ in the form of \_\_\_\_\_(ie; letter between RMI and facility manager, approval signature of Incident Commander on treatment/disposal proposal, etc.). This \_\_\_\_\_(type) debris will begin being transported from interim storage site(s) \_\_\_\_\_(site name/location) at \_\_\_\_\_(time) on \_\_\_\_\_(date).

F. PLAN SIGNATORIES

This plan may be amended as necessary to ensure compliance with all applicable laws and regulations. Amendments may occur only upon mutual agreement of Vitus Marine, LLC., the US Coast Guard, the EPA and the ADEC.

Submitted the \_\_\_ day of \_\_\_\_\_, 200\_\_;  
executed \_\_\_\_\_, 200\_\_.

By: \_\_\_\_\_(Vitus Marine, LLC.'s Representative)  
Date:

Approved by:  
Alaska Department of Environmental Conservation

By: \_\_\_\_\_(State Incident Commander) Date:\_\_\_\_\_

Reviewed by:  
US Coast Guard / EPA.

By: \_\_\_\_\_(Federal Incident Commander) Date:\_\_\_\_\_

**TABLE 1.6-3  
OIL RECYCLING FACILITIES**

<b>FACILITY</b>	<b>LOCATION</b>	<b>PHONE</b>
EMERALD SERVICES	ANCHORAGE, AK	907 258-1558
PHILLIPS SERVICES	ANCHORAGE, AK	907-272-9007
BICKNELL, INC.	JUNEAU	907 789 5727
WOODWORTH & CO.	TACOMA, WA SEATTLE, WA	(253) 383-3585 (253) 838-9090
PETROLEUM RECLAIMING SERVICES	TACOMA, WA	(253) 383-4175
ANCHORAGE SAND AND GRAVEL – ALASKA SOIL RECYCLING	ANCHORAGE, AK	907-349-3333

**TABLE 1.6-4  
HAZARDOUS WASTE LANDFILL**

<b>FACILITY</b>	<b>LOCATION</b>	<b>PHONE</b>
CHEMICAL WASTE MANAGEMENT	ARLINGTON, ORE	1-800-962-4927
WASTE MANAGEMENT	ALASKA SERVICE AREA REP	1-877-784-7336

**TABLE 1.6-5  
OILY WASTE LANDFILL**

<b>FACILITY</b>	<b>LOCATION</b>	<b>PHONE</b>
CHEMICAL WASTE MANAGEMENT	ARLINGTON, ORE	1-800-962-4927
WASTE MANAGEMENT	ALASKA SERVICE AREA REP	1-877-784-7336
THE SHAW GROUP	ANCHORAGE, AK OFFICE	907-243-6300

**TABLE 1.6-6  
INCINERATION SERVICES**

<b>FACILITY</b>	<b>LOCATION</b>	<b>PHONE</b>
<b>INCINERATION SERVICES</b>		
OIT INC.	NORTH POLE, AK	907 488-4899

**TABLE 1.6-7  
NON-OILY WASTE DISPOSAL SERVICES**

<b>FACILITY</b>	<b>LOCATION</b>	<b>PHONE</b>
<b>Solid Waste Disposal Services</b>		
Yukon Ventures Alaska	Fairbanks, AK	(907) 452-0218
<b>Janitorial Services</b>		
Asplund Supplies Inc.	Fairbanks, AK	(907) 452-8538
Asplund Supplies Inc.	Anchorage, AK	(907) 248-0404

## 1.6.10 WILDLIFE PROTECTION

VML will follow the "Wildlife Protection Guidelines for Alaska" current edition 4, dated June 2002 (Annex G of the Unified Plan located in Appendix A). These guidelines include procedures and requirements for hazing, capture, and rehabilitation.

A plan to safeguard, recover, rehabilitate and dispose of affected wildlife has been implemented as follows:

Wildlife response activities will be coordinated through Alaska Chadux Corporation under the supervision and approval of the Wildlife Agencies.

Alaska Chadux maintains wildlife response equipment and trained personnel (See Section 3.6 of the Alaska Chadux Response Manual). Alaska Chadux and their subcontractor International Bird Rescue and Rehabilitation Center (IBRRC) will be performing wildlife response operations for VML. Wildlife response equipment is maintained in a state of readiness and available for use by VML as a Chadux member. If necessary, Alaska Chadux will provide bird or otter capture kits, stabilization/rehabilitation units, and wildlife response coordination with agencies. If necessary, Alaska Chadux will also arrange and provide personnel to perform oiled wildlife rescue, bird hazing, rehabilitation, preemptive capture, and documentation services under VML's overall direction.

In the event of a discharge, oiled wildlife will be captured, stabilized and rehabilitated through VML's contracts with Alaska Chadux and the services of (IBRRC) providing facilities, equipment, and qualified personnel necessary to capture, stabilize and rehabilitate oiled wildlife.

See Section 3.10.5 Wildlife Protection for more detail.

**ONLY PASSIVE HAZING (MYLAR TAPE, SCARECROWS ETC.) IS ALLOWED WITHOUT A PERMIT!  
BEFORE CRACKER SHELLS ETC. ARE FIRED OR CARCASSES ARE COLLECTED, A PERMIT  
MUST BE OBTAINED!**

**Permit Contacts are:**

**Carcass removal, capture, stabilization, and treatment.**

US. Fish and Wildlife Service 907-786-3311  
Division of Law Enforcement  
PO. Box 92597  
Anchorage, AK 99509-2597

**Hazing** Alaska Dept. of Fish and Game, Habitat and Restoration Division  
Numbers listed below

See the following pages for phone numbers for Notification and Requesting Authorization to Initiate Secondary and/or Tertiary Wildlife Response Activities in an Oil Spill Response

## FEDERAL AND STATE CONTACTS

(Interior, NW Arctic & North Slope)	ADF&G Todd Nichols Fairbanks, Alaska	907-459-7363 907-459-7347 fax
(Southcentral/ Western)	ADF&G Valerie Blajeski 333 Raspberry Road Anchorage, AK 99518-1599	907 267-2300 wk 907 267-2464 fax
Spills/ govt cplan	ADNR 550 W 7 <sup>th</sup> Ave., Ste. 900C Anchorage, AK 99501-3577	907 269-8548 wk 907 269-8913 fax
Archaeologist	ADNR 550 W 7 <sup>th</sup> Ave., Anchorage, AK 99501	907 269-8725 wk 907 269-8908 fax
Asst. Regional Mgr. Resources	NMFS PO Box 21668, 709 W 9 <sup>th</sup> St, Room 461 Juneau, AK. 99802-1668	907 586-7235 wk
Field Super Protected Resources	NMFS 222 West 7 <sup>th</sup> Ave. #43 Anchorage, AK. 99513-7577	907 271-5006  907 248-4211 hm
Pamela Bergman	US Department of the Interior (DOI) 1689 C Street , Room 119 Anchorage, AK. 99501	907 271-5011 wk 907 271-4102 fax
Catherine Berg	US Fish & Wildlife Service 1011 E. Tudor Rd. Anchorage, AK 99506	907 271-1630 wk 800 759-8250wk 907 786-3350 fax
Jon Nickles	US Fish & Wildlife Service 1011 E Tudor Rd Anchorage, AK 99506	907 786-3506 wk 800 759-8255 wk 907 786-3350 fax 907 345-3224 hm
Philip Johnson	US Fish & Wildlife Service 1011 E Tudor Rd Anchorage, AK 99506	907 786-3483
John Whitney	NOAA 510 L Street, Suite 100 Anchorage, AK 99501	907 271-3593 206 526-4911 (24 hr) 907 440-8109 cel
Barbara Callahan Development Director	International Bird Rescue Research Center 6132 Nielson Way Anchorage, AK 99518 USA	(907) 562-1326 office (907) 230-2492 AK Mobile (707) 249-4871 Mobile (outside AK)

USFWS permitting. 786-3693

ADNR water use permits, 269-8646, 550 W 7<sup>th</sup>, 9<sup>th</sup> floor

### 1.6.11 SHORELINE CLEAN-UP PLAN

#### General Procedures

Shorelines that are impacted (contaminated) by an oil spill will be identified through a Shoreline Cleanup Assessment Team (SCAT) approach. The SCAT teams will be composed of the appropriate VML (Alaska Chadux or Contractor personnel), Federal, and State Representatives. In addition, local representatives and land owners will also be included in the SCAT team.

The SCAT teams will survey affected shorelines to determine the following information:

- Locations of impacted shorelines
- Degree of oiling
- Type of shoreline substrate
- Information on sensitivity of the shoreline to both the oil contamination present and to the possible impact of the cleanup operations.
- Information on human and wildlife uses and land ownership.
- Recommendations on need for further cleanup and methods.

The following factors will be considered in making decisions about whether to proceed with shoreline cleanup, and if so, to what extent:

- Prioritization of site requiring cleanup should be conducted.
- Will cleanup activities do more damage to sensitive shorelines than leaving the oil to biodegrade naturally?
- Is shoreline area accessible to recovery equipment?
- Appropriate land management agency or private landowner authorizations/permits will be necessary prior to beginning cleanup operations.
- Certain land classifications may preclude cleanup operations.
- Biological and physical characteristics of contaminated shorelines need to be evaluated. Sheltered shorelines not exposed to wave/flushing action should be given highest priority for protection and cleanup.

SCAT team cleanup recommendations will be evaluated in the Unified Command. A Net Environmental Benefit Analysis (NEBA) will be conducted to ensure that the best technique and level of cleanup is conducted to minimize environmental damages and risks. Shoreline cleanup operations will be planned and managed by the Operations Section of the ICS and approved by the Unified Command.

Possible Shoreline Cleanup Tactics include the following:

- No action, leave contamination in place and allow to naturally attenuate via bioremediation. This action may be deemed appropriate where low levels of contamination are present, where removal of the substrate may result in damages that are larger than the benefit of removing the contamination. With no action, further monitoring is likely to be required.
- Passive Collection - sorbent boom, sweep, or rolls is deployed along the contaminated shoreline. Over time, free oil that might be present at the shoreline is collected by the sorbent passively.
- Contaminated Debris Removal. Contaminated debris may include trash, logs, grasses, seaweeds, kelp, and oiled vegetation. Cleanup of contaminated debris may include no action, natural bioremediation, flushing, or removal. In some instances, open burning may also be an option (will need Unified Command approval for open burning).
- Trenching – Recovery Wells. Where heavy concentrations of oil product have saturated soils. Trenches or recovery wells may be installed on the shoreline to collect the free product that is present in the shoreline area.
- Contaminated Soil/Sediment Manual Removal. Removal of highly contaminated soil may be required in areas where the excavation/removal work will not impact the environment. Where gross contamination is present, cleanup operations should be started as soon as possible to avoid excessive oil penetration into the sand, soil or gravel substrate. The goal is to remove only necessary materials as quickly as possible, in order to avoid disruption of normal beach processes. Where there are limited amounts of contaminated soil, removal can be accomplished by workers with rakes and shovels. Where large amounts of contaminated soil are present, removal operations are typically conducted using heavy earthmoving equipment (graders, bulldozers, excavators).
- Cold Low Pressure Water Flooding (cold water deluge). This method is typically used where there is the presence of gross quantities of oil that can be flooded from the shoreline to the water surface and recovered using a skimmer or sorbent. Pumps are deployed on the shoreline and water from the water body is pumped to a water deluge system.

- Cold Water Washing. Agitation is conducted using cold water pumped to water nozzles. May be either low or high pressure. Oil that flows to the water surface is contained with boom or sorbents and recovered.
- Water Pressure Washing. This method of shoreline cleanup is typically used on rocky shorelines or manmade structures where viscous oil contamination is present. High water pressure spray from a high pressure source (pressure washer) is used to conduct impinging cleaning of a solid surface. High pressure flushing may dislodge attached organisms and these damages need to be considered when evaluating this method. Hot Water Cleaning uses a high pressure hot water stream to remove oil from almost any surface. In this process, the hot water is used to raise the temperature of the adhered oil, thereby lowering its viscosity and allowing it to flow off a surface. This method is effective in removing thin or weathered oil coatings from boulders, rocks or man-made structures. Hot water cleaning efforts should be initiated at the highest points of contamination and continues down slope. The cleaning should be timed so the lowest point is reached during low tide and the oil is recovered before the tide rises again. In addition, adjacent uncontaminated surfaces should be protected with plastic sheets. Removed oil can be recovered manually or by vacuuming. As a general rule, steam cleaning should not be used on surfaces that support animal or plant life. Exceptions should be made only in areas where natural re-colonization would occur quickly. Not a recommended cleanup technique for low viscosity oil spills.
- Vacuum Cleaning. Specialized vacuum systems are used to remove any free liquids from the contaminated area.
- Cutting Vegetation. Contaminated vegetation is removed by cutting the stems/stalks and removing the upper portion of the plant.
- Chemical Treatment. Application of a chemical substance to stabilize, protect, or enhance cleaning of the shoreline.
- Burning. Ignition of free product on the shoreline, or burning of contaminated vegetation in place.
- Nutrient Enhanced bioremediation. This option involves the application of a fertilizer nutrient or other bioremediation enhancement agent to the contaminated soil. Application methods will depend upon the material, but may include broadcasting of a granular fertilizer or spraying using a backpack type sprayer. Active bioremediation including nutrient addition and soil mixing to increase oxygen concentrations in the soil. This procedure includes application of bioremediation enhancement agents in addition to mixing of the soil with mechanical tilling systems (roto-tillers, discs, or other machinery).
- Bacterial Addition. Application of bacteria that are specially formulated for bioremediation of oil.
- Sediment/Soil Re-Working. Contaminated soil from the shoreline is pushed into the nearshore water area (interidal or wave area) to enhance release of the oil by the higher energy of the water. Oil that is released is recovered by skimmers or sorbents. Over time, contamination of the soil is naturally reduced by the water action and bioremediation.
- Shoreline Removal/Replacement. Manual removal with replacement of substrate by clean soil.

Table 1.6-8 presents a Shoreline Cleanup Matrix that can be used as general guide only. The guide must be used in conjunction with field observations and scientific advice. The countermeasures listed are not necessarily the best under all circumstances, and any listed technique may need to be used in conjunction with other techniques. Selection of countermeasures is based on the degree of oil contamination, the shoreline type, and the presence of sensitive resources.

**TABLE 1.6-8  
SHORELINE CLEANUP MATRIX**

**SHORELINE CODES**

- 1 – Seawalls, Piers
- 2 – Eroding Bluffs, Wave cut Platforms
- 3 – Ripraps
- 4 – Vegetated River Bank
- 5 – Fine Sand Beach
- 6 – Coarse Sand Beach (Including Gravel)
- 7 – Exposed Tidal Flats
- 8 – Sheltered Tidal Flats
- 9 – Freshwater Marshes
- 10 – Fringing and Extensive Salt Marshes
- 11 – Vegetated Tidal Flats

**TABLE CODES:**

- R – Recommended
- A – Applicable
- P – Possibility
- X – Do Not Use
- \* - Cutting Will Depend Upon Time Of Year.  
Consider Only If Re-oiling Of Birds Possible
- + - Requires RRT Approval

Countermeasure	Shoreline Type										
	1	2	3	4	5	6	7	8	9	10	11
No action	R	R	A	A	A	A	A	A	A	A	A
Manual removal	X	A	A	P	A	A	P	P	P	P	P
Passive collection	R	R	R	R	R	R	R	R	R	R	R
Debris removal (heavy equipment)	P	X	P	X	P	P	X	X	X	X	X
Trenching (recovery wells)	X	X	X	X	P	P	X	X	X	X	X
Sediment removal	X	X	X	X	P	P	X	X	X	X	X
Cold water flooding	X	X	X	P	P	P	X	X	P	P	X
Cold water washing	X	X	X	X	X	X	X	X	X	X	X
Low pressure (<50 psi)	A	X	A	X	X	P	X	X	P	P	X
High pressure (<100 psi)	P	X	P	X	X	X	X	X	X	X	X
Water pressure washing (to 90°F)	P	X	P	X	X	P	X	X	X	X	X
Water pressure washing (above 90°F)	X	X	X	X	X	X	X	X	X	X	X
Vacuum	A	P	A	A	P	P	A	A	A	A	P
Cutting vegetation*	X	X	X	X	X	X	X	X	X	X	X
Chemical treatment+	X	X	X	X	X	X	X	X	X	X	X
Oil stabilization	X	X	X	X	X	X	X	X	X	X	X
Protection of beaches	X	X	X	X	X	X	X	X	X	X	X
Cleaning of beaches	X	X	X	X	X	X	X	X	X	X	X
Burning+	X	X	X	X	X	X	X	X	X	X	X
Nutrient enhancement+	X	X	X	X	P	P	P	P	P	P	X
Bacterial addition+	X	X	X	X	P	P	P	P	P	P	X
Sediment reworking+	X	X	X	X	P	P	X	X	X	X	X
Shore removal/replacement+	X	X	X	X	X	X	X	X	X	X	X

Shoreline Cleanup in Wetlands and Marsh Areas – Oil spill cleanup operations in a wetland should be undertaken with extreme care. There are several recommended cleanup techniques (variations of the above listed techniques), each with distinct advantages and drawbacks. The method to be used in a given spill situation will depend on the degree of contamination. An assessment of the impacted area will be made by technical specialists and agency representatives on the SCAT team who will make their recommendation to the Unified Command.

While shoreline cleanup operations should commence as soon as possible, shoreline cleanup should follow the completion of on-water recovery unless the impacted shoreline is an immediate threat to wildlife. Additional information on procedures and techniques for shoreline cleanup is located in Annex N of the Unified Plan located in Appendix A.

Most of the shorelines in Alaska are nearly impossible to reach by land vehicle because of the absence of even a primitive road system. As a result, helicopter or watercraft will be required to transport shoreline cleanup equipment and personnel to the work sites. Tugs and barges equipped with ramps will be used to transport larger equipment and to remove contaminated material. Smaller types of recovery equipment and personnel will be delivered by any suitable craft. Motorboats and radio communications should be left with any crew not directly supported by a larger watercraft or helicopter.

## 1.6.12 OIL SPILL SCENARIOS

*The response scenarios presented in this subsection have been developed as required by the ADEC requirements. They represent hypothetical responses to a small and large (Response Planning Standard sized) oil spill scenarios from a tank barge. The scenarios are presented to demonstrate the potential spill response activities that might occur following incidents of this nature and to demonstrate access to the necessary equipment resources. The actual response to any oil spill and the performance of the response systems will be largely dependent on actual incident characteristics and environmental conditions at the time of the incident.*

### 1.6.12.1 VML SCENARIO No. 1 – 3 x RPS (30,000 BBLs) EQUIVALENT TO 90,000 BARRELS DIESEL FUEL NO. 1

This spill scenario presents the hypothetical oil spill response for a large oil spill originating from a tank vessel while entering Port Clarence. In this scenario, the spill occurs in Port Clarence. As required by the ADEC, the spill volume listed in the scenario must be 3 times the actual RPS in order to account for evaporation and dispersion in the environment. This scenario results in an oil spill that is equivalent to the Response Planning Standard of 30,000 barrels x 3, or 90,000 barrels. It is designed to demonstrate the ability of VML to respond to an event of this size and magnitude.

RESPONSE TYPE:	TYPE / AMOUNT:
On water Response: VML / Alaska Chadux	Cargo On Board: Diesel Fuel #1 – 200,000 bbls RPS: 30,000 bbls Spill Volume: 90,000 bbls

#### INCIDENT CAUSE / SOURCE

While proceeding into Port Clarence loaded with No. 1 Diesel cargo, the vessel strikes an unknown submerged object mid channel just north of Pt. Spencer.. The vessel continues into Port Clarence and anchors at 65° 11.8' N 166° 50.4' W. Oil is seen bubbling to the surface on the starboard side. Oil is spilling from multiple tanks into Port Clarence.

<b>TIME:</b>	1000	<b>WIND:</b>	10 S.W.
<b>SEASON:</b>	Summer	<b>TEMPERATURE:</b>	55 Degrees
<b>VISIBILITY:</b>	10 nm	<b>LOCATION:</b>	2.5 miles south of USCG station in Port Clarence.

#### ASSUMPTIONS:

- Safe to commence response operations after initial evaluation.
- The cause of the spill has no impact on the size or duration of the spill event.
- Evaporation and emulsification are not considered.
- No injuries are associated with the incident.
- Quantity of oil to the Water: 90,000 barrels of No. 1 diesel oil is spilled from the cargo tanks directly into Port Clarence during the first 45 hours of the incident.
- The tanker is scheduled to meet two barges at Port Clarence for lightering and transport to local communities.

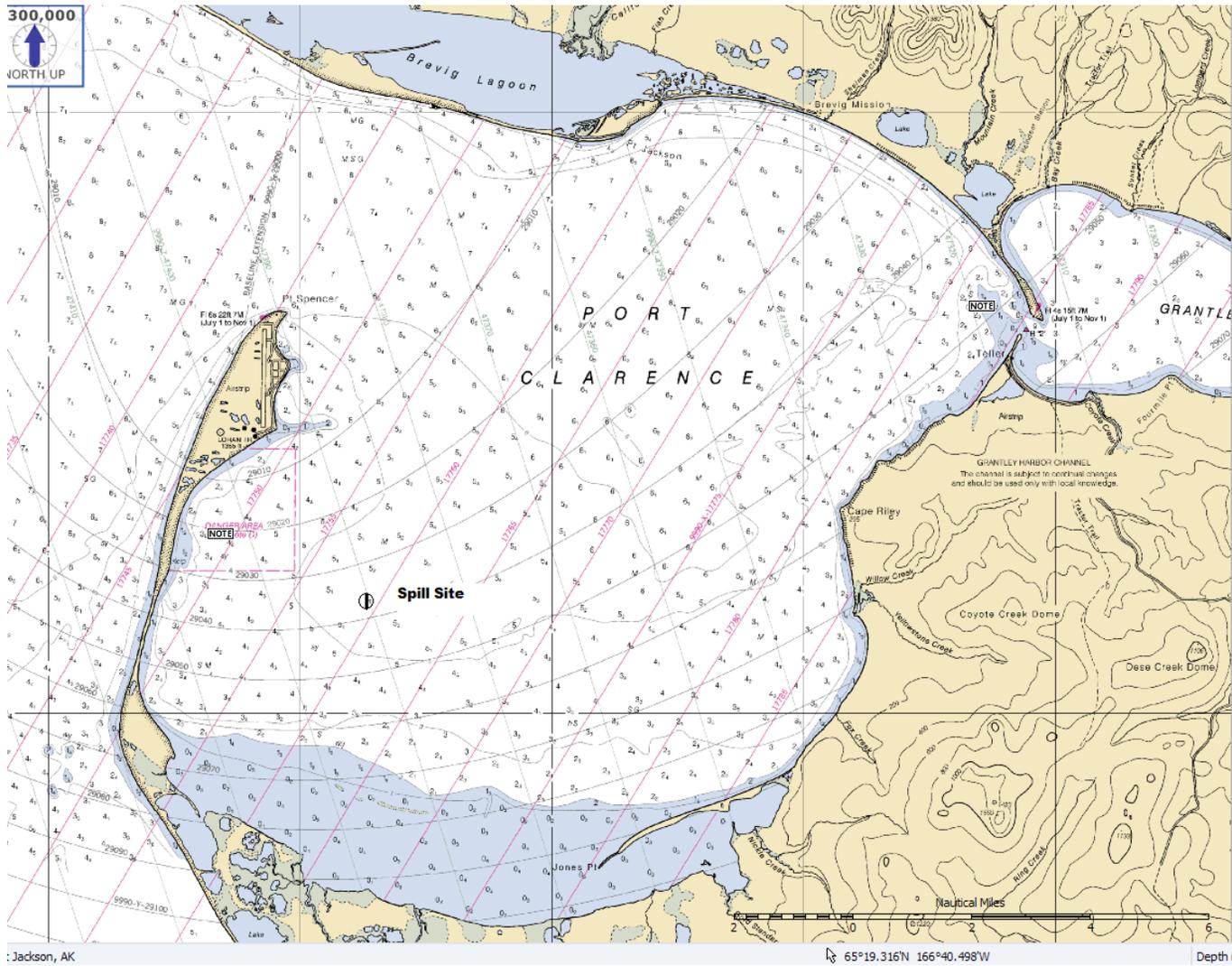
**RPS SCENARIO****SUSTAINED CONTAINMENT, CONTROL, RECOVERY, AND STORAGE OPERATIONS:**

**Notations:** Only contracted oil spill equipment resources are used to demonstrate compliance with RPS containment and control. Storage in tanker slack or void space is not accounted for pursuant to ADEC directive with the exception of 10% of the 2 largest tanks as reserved space pursuant to the ADP&T agreement. Sufficient portable storage (tanks and/or bladders) are provided with each skimmer. The mass balance spreadsheet in Table 1.6-23 depicts the skimmers operating at the nameplate capacity with a derated efficiency rate until storage is filled. In total, 3,809.5 barrels of shore based storage and 95,553 barrels of on water storage is deployed on spill site locations. Mobile open water skimming operations are conducted in this scenario. It should be noted that the Alaska Chadux Corporation has many more resources available and ready beyond what is presented in this scenario.

**Table 1.6-9  
General Response Objectives and Strategies**

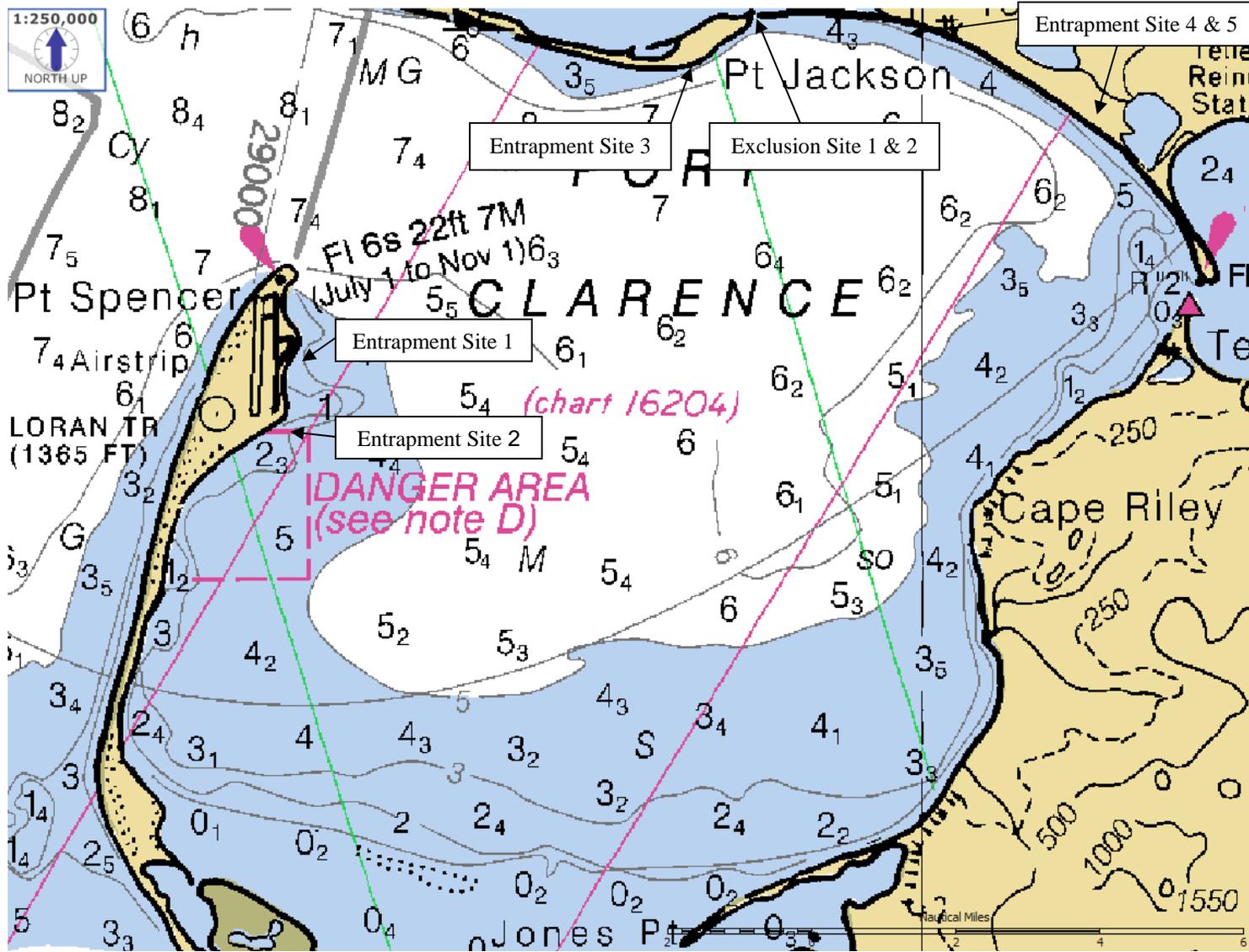
<b>Objectives</b>	<b>Strategies</b>
Safety	<ul style="list-style-type: none"> <li>• Ensure safety of all responders</li> <li>• Ensure safety of vessel and crew</li> <li>• Secure response area (Air and Water)</li> <li>• Empower workers to take actions to ensure safety.</li> </ul>
Source Control	<ul style="list-style-type: none"> <li>• Secure tank vessel and oil leakage</li> <li>• Identify onboard oil quantity</li> <li>• Evaluate cargo transfer opportunities (lightering/internal transfer)</li> </ul>
Containment, Control and Recovery of Oil	<ul style="list-style-type: none"> <li>• Maximize mechanical containment, control and recovery of oil</li> <li>• Control of source</li> <li>• Minimize shoreline impact</li> <li>• Prepare for shoreline cleanup</li> <li>• Prepare required permitting</li> </ul>
Protection of Sensitive Resources	<ul style="list-style-type: none"> <li>• Identify, prioritize and protect sensitive resources in the spill and down stream areas</li> <li>• Minimize oiling of sensitive areas</li> <li>• Protect wildlife resources and haze if necessary.</li> <li>• Confer with the State Historic Preservation Officer on work areas to identify potential culturally sensitive areas.</li> </ul>
Public Outreach	<ul style="list-style-type: none"> <li>• Communicate with affected communities</li> <li>• Utilize local media to distribute information</li> <li>• Establish claims process</li> </ul>
Others if/as necessary	

**FIGURE 1.6-8  
SPILL LOCATION CHART**

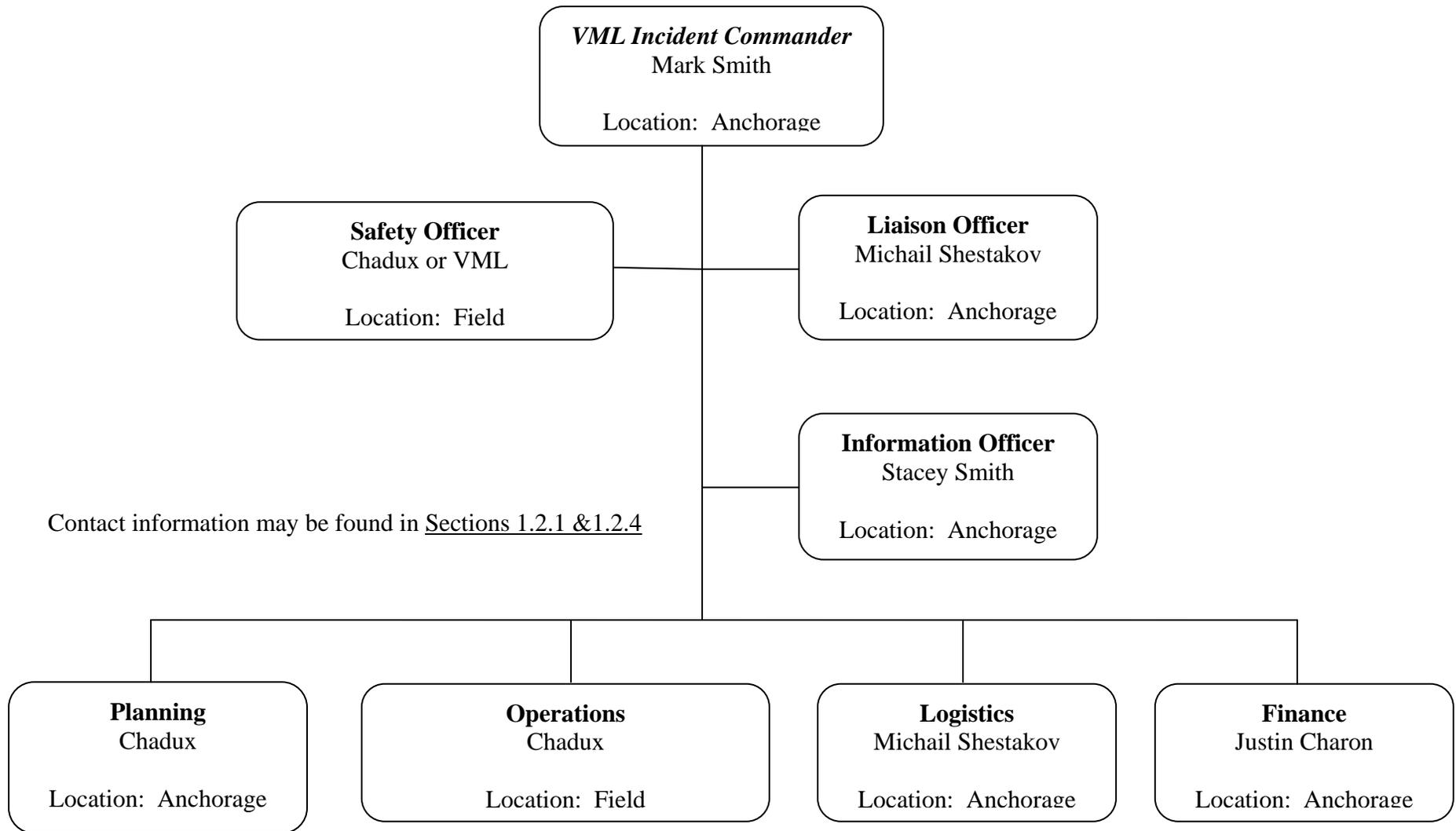




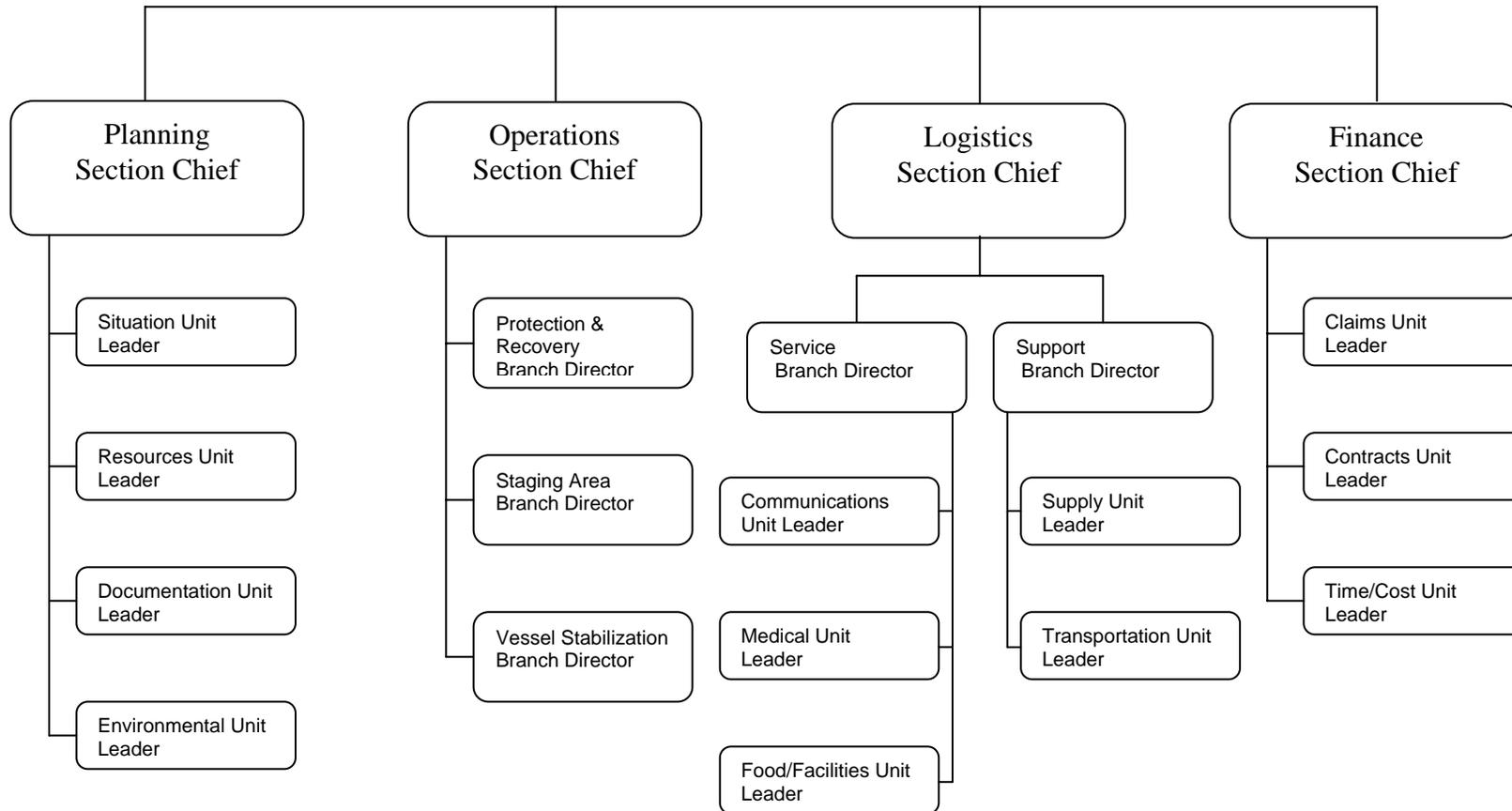
**FIGURE 1.6-10  
DEPLOYMENT LOCATIONS**



**FIGURE 1.6 –11  
INCIDENT MANAGEMENT TEAM  
(SCENARIO 1 & 2)**



**FIGURE 1.6 –11  
INCIDENT MANAGEMENT TEAM (Continued)  
(SCENARIO 2 & 3)**



**Table 1.6-10  
TACTICAL OBJECTIVES – DAY 1  
(SCENARIO 1)**

<b>Command and Command Staff</b>		
	<b>1000 - 1800 hours</b>	<b>1800 – 0600 hours</b>
Unified Command	<p>Activate VML IMT.            Notify PFA operations and request assistance.            Establish Unified Command at VML Anchorage office.            Brief personnel on situation.            Develop priorities and objectives            Ensure effective oil containment, control, and recovery</p>	<p>Develop priorities and objectives.            Ensure effective oil containment, control, and recovery.            Communicate changes of plans and priorities with IMT and field.            Approve Incident Action Plan for next operational period.</p>
Liaison	<p>Ensure affected communities are notified of spill.            Ensure additional agencies are notified of spill.            Identify stakeholder contacts.            Establish contact list and schedule.</p>	<p>Continue community and stakeholder updates.            Conduct agency updates.            Maintain contact list and schedule.</p>
Public Information	<p>Prepare public information release for approval of UC.            Establish internal/external information procedures..            Schedule media briefing.</p>	<p>Establish Joint Information Center for distribution of information.            Prepare UC for media briefings.            Conduct UC media briefings.</p>
Safety	<p>Conduct initial site survey.            Develop site safety plan.            Provide safety briefing to all personnel</p>	<p>Provide safety briefing to all personnel.            Continue to monitor safety of personnel.            Establish emergency medical service.            Submit site safety plan to UC for approval.</p>

<b>Planning Section</b>		
	<b>1000 - 1800 hours</b>	<b>1800 – 0600 hours</b>
Planning Section	<p>Request permission to utilize Port Clarence USCG Station runway for initial flights.            Identify and request required permits.            Prepare permit application for decanting and submit for approval.            Establish meeting schedule.            Start the development of Incident Action Plan.</p>	<p>Maintain meeting schedule.            Facilitate meetings.            Submit Incident Action Plan (IAP) for UC approval.</p>
Documentation Unit	<p>Establish records procedures.            Begin collection of documentation.            Begin historical recording of activities.</p>	<p>Maintain all spill documents and files.            Distribute IAP</p>
Resource Unit	<p>Identify resource needs and potential sources.            Complete Org Chart (ICS 207)            Develop personnel and equipment tracking procedures.            Maintain master list of resources</p>	<p>Maintain personnel and equipment tracking.            Maintain master list of resources.            Prepare requisitions.</p>

	checked in.	
Situation Unit	Establish information protocols. Start Situation board. Post and manage displays.	Maintain and update Situation Board. Post and manage displays.
Environmental Unit	Identify and prioritize environmentally sensitive areas. Prepare permit applications in support of UC objectives. Request trajectory assistance from NOAA.	Maintain communications with permitting agencies. Continue review of permits and applications. Brevig Lagoon is Identified as a priority sensitive area.

<b>Operations Section</b>	
<b>1000 - 1800 hours</b>	<b>1800 – 0600 hours</b>
Deploy 500 ft of containment boom from the ATB Naniq/AVEC 183 in a “U” configuration down current from the tanker. Deploy 600 ft of containment boom from the ATB Cavek/AVEC 208 as a secondary containment down current from the “U” boom that was deployed by the ATB Naniq. ATB Cavek/AVEC 208 & ATB Naniq/AVEC 183 begin skimming operations at spill site. Conduct over flights.	ATB Cavek/AVEC 208 begin skimming operations at spill site. Deploy containment boom around tanker Establish Exclusion booming sites at Brevig Lagoon. Conduct over flights.

<b>Logistics Section</b>	
<b>1000 - 1800 hours</b>	<b>1800 – 0600 hours</b>
Arrange 2 tractor/trailers to transport Chadux response conexs from Nome to Teller. Mobilize Chadux equipment and personnel in Anchorage. Establish Staging area in Teller. Establish Staging area in Nome. Establish ordering procedures. Establish Field Command Post in Teller. Establish Housing in Nome and Teller. Establish Meal services. Develop Communications Plan	Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.

<b>Finance Section</b>	
<b>1000 - 1800 hours</b>	<b>1800 – 0600 hours</b>
Begin tracking all expenditures. Prepare contracts/agreements for vendors. Contact insurance carrier.	Prepare contracts/agreements for vendors Develop procedures for damage claims Maintain time records

**Table 1.6-11  
TACTICAL OBJECTIVES – DAY 2  
(SCENARIO 1)**

<b>Command and Command Staff</b>		
	<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Unified Command	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.
Liaison	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.
Public Information	Schedule media briefings. Prepare UC for media briefings. Conduct UC media briefings.	Schedule media briefings. Prepare UC for media briefings. Conduct UC media briefings.
Safety	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Review and revise safety plan as necessary.	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Review and revise safety plan as necessary.

<b>Planning Section</b>		
	<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Planning Section	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.
Documentation Unit	Maintain all spill documents and files. Distribute IAP	Maintain all spill documents and files. Distribute IAP
Resource Unit	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.
Situation Unit	Maintain and update Situation Board. Post and manage displays.	Maintain and update Situation Board. Post and manage displays.
Environmental Unit	Maintain communications with permitting agencies. Continue review of permits and applications. Work with local communities to identify other potential areas of concern. Develop Wildlife Protection Plan.	Maintain communications with permitting agencies. Continue review of permits and applications.

<b>Operations Section</b>	
<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Continue containment and recovery operations at tanker. Establish entrapment site near USCG station. Conduct over flights.	Continue containment and recovery operations at tanker. Establish open water recovery operation. Conduct over flights

<b>Logistics Section</b>	
<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.	Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.

<b>Finance Section</b>	
<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Prepare contracts/agreements for vendors Begin processing damage claims. Maintain time records	Prepare contracts/agreements for vendors Process damage claims. Maintain time records

**Table 1.6-12  
TACTICAL OBJECTIVES – DAY 3  
(SCENARIO 1)**

<b>Command and Command Staff</b>		
	<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Unified Command	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.
Liaison	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.
Public Information	Schedule media briefings. Prepare UC for media briefings. Conduct UC media briefings.	Schedule media briefings. Prepare UC for media briefings. Conduct UC media briefings.
Safety	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Review and revise safety plan as necessary.	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Review and revise safety plan as necessary.

<b>Planning Section</b>		
	<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Planning Section	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.
Documentation Unit	Maintain all spill documents and files. Distribute IAP	Maintain all spill documents and files. Distribute IAP
Resource Unit	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.
Situation Unit	Maintain and update Situation Board. Post and manage displays.	Maintain and update Situation Board. Post and manage displays.
Environmental Unit	Maintain communications with permitting agencies. Continue review of permits and applications. Develop Waste Management Plan for UC approval.	Maintain communications with permitting agencies. Continue review of permits and applications.

<b>Operations Section</b>	
<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Continue containment and recovery Establish 2 additional entrapment sites. Conduct over flights	Continue containment and recovery Establish 2 additional entrapment sites near Brevig Mission. Conduct over flights

<b>Logistics Section</b>	
<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.	Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.

<b>Finance Section</b>	
<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Prepare contracts/agreements for vendors Begin processing damage claims. Maintain time records	Prepare contracts/agreements for vendors Begin processing damage claims. Maintain time records

**Table 1.6-13  
TACTICAL OBJECTIVES – DAY 4 & 5  
(SCENARIO 1)**

<b>Command and Command Staff</b>		
	<b>0600 – 0559 hours Day 4</b>	<b>0600 – 0559 hours Day 5</b>
Unified Command	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.
Liaison	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.
Public Information	Schedule media briefings. Prepare UC for media briefings. Conduct UC media briefings.	Schedule media briefings. Prepare UC for media briefings. Conduct UC media briefings.
Safety	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Review and revise safety plan as necessary.	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Review and revise safety plan as necessary.

<b>Planning Section</b>		
	<b>0600 – 0559 hours</b>	<b>0600 – 0559 hours</b>
Planning Section	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.
Documentation Unit	Maintain all spill documents and files. Distribute IAP	Maintain all spill documents and files. Distribute IAP
Resource Unit	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.
Situation Unit	Maintain and update Situation Board. Post and manage displays.	Maintain and update Situation Board. Post and manage displays.
Environmental Unit	Maintain communications with permitting agencies. Continue review of permits and applications. Work with Alaska Office of History and Archaeology to identify any areas of concern in the response area.	Maintain communications with permitting agencies. Continue review of permits and applications.

<b>Operations Section</b>	
<b>0600 – 0559 hours Day 4</b>	<b>0600 – 0559 hours Day 5</b>
Continue containment and recovery operations. Conduct over flights Recovered liquid transfer from entrapment sites to ATB.	Continue containment and recovery operations. Conduct over flights. Recovered liquid transfer from entrapment sites to ATB. Cargo transfer from ATB Naniq to APD&T barge.

<b>Logistics Section</b>	
<b>0600 – 0559 hours</b>	<b>0600 – 0559 hours</b>
Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.	Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.

<b>Finance Section</b>	
<b>0600 – 0559 hours</b>	<b>0600 – 0559 hours</b>
Prepare contracts/agreements for vendors Begin processing damage claims. Maintain time records	Prepare contracts/agreements for vendors Begin processing damage claims. Maintain time records

**Table 1.6-14  
TACTICAL OBJECTIVES – DAY 6 & 7  
(SCENARIO 1)**

<b>Command and Command Staff</b>		
	<b>0600 – 0559 hours Day 6</b>	<b>0600 – 0559 hours Day 7</b>
Unified Command	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.
Liaison	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.
Public Information	Schedule media briefings. Prepare UC for media briefings. Conduct UC media briefings.	Schedule media briefings. Prepare UC for media briefings. Conduct UC media briefings.
Safety	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Review and revise safety plan as necessary.	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Review and revise safety plan as necessary.

<b>Planning Section</b>		
	<b>0600 – 0559 hours</b>	<b>0600 – 0559 hours</b>
Planning Section	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.
Documentation Unit	Maintain all spill documents and files. Distribute IAP	Maintain all spill documents and files. Distribute IAP
Resource Unit	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.
Situation Unit	Maintain and update Situation Board. Post and manage displays.	Maintain and update Situation Board. Post and manage displays.
Environmental Unit	Maintain communications with permitting agencies. Continue review of permits and applications. Work with Alaska Office of History and Archaeology to identify any areas of concern in the response area.	Maintain communications with permitting agencies. Continue review of permits and applications. Establish procedures for the evaluation of shoreline impacts.

<b>Operations Section</b>	
<b>0600 – 0559 hours Day 6</b>	<b>0600 – 0559 hours Day 7</b>
Continue containment and recovery operations. Continue over flights. Recovered liquid transfers.	Continue containment and recovery. APD&T Barge to begin open water recovery operations. ATB Cavek to begin open water recovery operations. Continue over flights. Recovered liquid transfers.

<b>Logistics Section</b>	
<b>0600 – 0559 hours</b>	<b>0600 – 0559 hours</b>
Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.	Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.

<b>Finance Section</b>	
<b>0600 – 0559 hours</b>	<b>0600 – 0559 hours</b>
Prepare contracts/agreements for vendors Begin processing damage claims. Maintain time records	Prepare contracts/agreements for vendors Begin processing damage claims. Maintain time records

**Table 1.6-15  
TACTICAL OBJECTIVES – DAY 8 & 9  
(SCENARIO 1)**

<b>Command and Command Staff</b>		
	<b>0600 – 0559 hours Day 8</b>	<b>0600 – 0559 hours Day 9</b>
Unified Command	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.
Liaison	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.
Public Information	Schedule media briefings. Prepare UC for media briefings. Conduct UC media briefings.	Schedule media briefings. Prepare UC for media briefings. Conduct UC media briefings.
Safety	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Review and revise safety plan as necessary.	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Review and revise safety plan as necessary.

<b>Planning Section</b>		
	<b>0600 – 0559 hours</b>	<b>0600 – 0559 hours</b>
Planning Section	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.
Documentation Unit	Maintain all spill documents and files. Distribute IAP	Maintain all spill documents and files. Distribute IAP
Resource Unit	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.
Situation Unit	Maintain and update Situation Board. Post and manage displays.	Maintain and update Situation Board. Post and manage displays.
Environmental Unit	Maintain communications with permitting agencies. Continue review of permits and applications. Organize SCAT team.	Maintain communications with permitting agencies. Continue review of permits and applications. Develop Shoreline Cleanup Plan.

<b>Operations Section</b>	
<b>0600 – 0559 hours Day 8</b>	<b>0600 – 0559 hours Day 9</b>
Continue containment and recovery operations. Continue over flights.	Continue containment and recovery Continue over flights.

<b>Logistics Section</b>	
<b>0600 – 0559 hours</b>	<b>0600 – 0559 hours</b>
Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.	Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.

<b>Finance Section</b>	
<b>0600 – 0559 hours</b>	<b>0600 – 0559 hours</b>
Prepare contracts/agreements for vendors Begin processing damage claims. Maintain time records	Prepare contracts/agreements for vendors Begin processing damage claims. Maintain time records

**TABLE 1.6-16  
PORT CLARENCE SCENARIO STRATEGY – DAY 1**

ADEC Requirement 18 AAC 75.425(e)(1)(F)	Timeline – Actions Taken Day 1 1000 -1800 hours	VML CPLAN Section Reference	Timeline – Actions Taken Day 1 1800 – 0600 hours	VML CPLAN Section Reference
Safety	<ul style="list-style-type: none"> <li>• Master sounds general alarm</li> <li>• Master accounts for the safety of all hands</li> <li>• ATB Cavek/AVEC 208 assigned as On-scene Incident Commander</li> <li>• Conduct Initial Safety Assessment – Site was found to be safe.</li> <li>• Conduct initial safety briefing</li> <li>• Mate from the ATB Cavek/AVEC 208</li> <li>• prepares Site Safety Plan and submits to UC for approval</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1
Notification	<ul style="list-style-type: none"> <li>• Tanker Master notifies escort tug and VML ATB's.</li> <li>• VML QI/Representative notified by tanker's Master</li> <li>• VML QI/Representative activates the VML IMT.</li> <li>• NRC &amp; ADEC Notified by VML QI/Representative</li> <li>• Chadux Notified by the VML QI/Representative, request for equipment, personnel, and management resources.</li> <li>• VML QI/Representative notifies Salvage and Marine Firefighting Provider of incident and that additional assistance will be required.</li> <li>• VML QI/Representative notifies Pacific Fishing Assets Aleknagik Operations and request assistance.</li> <li>• Notification of Brevig Mission and Teller.</li> </ul>	1.2.1 1.2.3 1.2.4.4 Fig.1.2-1 Fig. 1.2-2 Fig. 1.2-3 Fig. 1.2-4		
Stopping Discharge at Source and Lightering	<ul style="list-style-type: none"> <li>• Secure all vessel tank valves</li> <li>• Evaluate plugging vents and all other control options</li> <li>• Chief Mate and Deckhand sound tanks – All 8 stbd side tanks are damaged. Oil continues to leak from damaged tanks.</li> <li>• Chief Mate and Deckhand transfer as much oil as possible from damaged tanks.</li> <li>• Engineer and Deckhand perform damage assessment.</li> <li>• Request tanker stability report from salvage services provider.</li> </ul>	1.6.1	<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Oil is continuing to leak from damaged tanks.</li> </ul>	1.6.1

Preventing or Controlling Fire Hazards	<ul style="list-style-type: none"> <li>Secure potential ignition sources</li> <li>Prepare firefighting equipment</li> <li>Monitor air levels for flammable vapors</li> </ul>	1.6.2	<ul style="list-style-type: none"> <li>Monitor air levels for flammable vapors</li> </ul>	1.6.2
Surveillance and Tracking of Oil; Forecasting Shoreline Contact Points	<ul style="list-style-type: none"> <li>Tanker crew conducts visual surveillance from the bridge.</li> <li>Additional visual surveillance provided by Escort Tug and VML ATB's.</li> <li>Conduct over flight surveillance. In coming passenger aircraft reports. <ul style="list-style-type: none"> <li>Large amount of oil near the tanker, which is being partially contained.</li> <li>Uncontained oil is spreading to the northeast slowly.</li> </ul> </li> <li>Request NOAA provide assistance with developing a 36 hour trajectory forecast.</li> </ul>	1.6.3.1 Fig. 1.6-9	<ul style="list-style-type: none"> <li>Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-9
Protection of Environmentally Sensitive Areas and Areas of Public Concern	<ul style="list-style-type: none"> <li>Establish contact with ADF&amp;G to identify and prioritize possible ESA's affected.</li> <li>Contact the villages of Brevig Mission and Teller to assist in identifying areas of public concern.</li> </ul>	3.10.3	<ul style="list-style-type: none"> <li>Brevig Lagoon identified as a priority concern, protective booming at the 2 openings to the lagoon will be installed.</li> </ul>	3.10.3
Spill Containment and Control Actions & Spill Recovery Procedures	<ul style="list-style-type: none"> <li>Establish Unified Command at VML offices in Anchorage.</li> <li>Deploy 500' of containment boom from ATB Naniq/AVEC 183 down current of the tanker in a "U" configuration at 1100.</li> <li>ATB Naniq deploys skimming system in apex of "U" boom and begins recovery operations. 1130</li> <li>Deploy 600' of containment boom from ATB Cavek/AVEC 208 down current from Naniq's boom as secondary containment at 1215.</li> <li>ATB Cavek deploys skimming system in secondary containment and begins recovery operations. 1300</li> <li>Chadux mobilizes C130 aircraft for equipment transport.</li> <li>Chadux mobilizes SAAB aircraft for personnel transport.</li> <li>Contract 2 Tractor/Trailer in Nome to provide equipment transportation 1400.</li> <li>ACC Nome Depot equipment loaded on to trucks for transport to Teller at 1530.</li> <li>Chartered passenger aircraft departs Anchorage with 24 ACC responders, 3 ACC managers, 1 ADEC representative and 1 USCG representative at 1550.</li> <li>Cargo aircraft departs Anchorage at 1605.</li> </ul>	1.5.1 1.6.6 1.6.4.1 1.6.4.4	<ul style="list-style-type: none"> <li>Chartered personnel flight arrives at CG Station 1810.</li> <li>Arriving personnel are provided initial status and safety briefing and receive assignments 1830.</li> <li>Passenger aircraft departs for Anchorage 1840.</li> <li>1<sup>st</sup> cargo flight arrives at CG Station 1845.</li> <li>Passenger aircraft arrives Anchorage at 2025.</li> <li>VML ATB personnel offload cargo aircraft with onboard rough terrain forklifts and load equipment on to ATB Naniq for transport to Teller 2030.</li> <li>Launch 28' Landing craft and assign crew 2045.</li> <li>ATB Naniq and 28' LC depart for Teller to offload equipment, and personnel 2100.</li> <li>ATB Cavek departs to spill site to begin recovery operations 2100.</li> <li>Cargo aircraft return to Anchorage 2115.</li> <li>ATB Cavek arrives at spill site and deploys onboard skimmer 2145.</li> <li>ATB Cavek recovery operations begin at 2150.</li> <li>Passenger aircraft departs Anchorage for Nome with 26 ACC responders at 2200.</li> </ul>	1.5.1 1.6.6 1.6.4.1 1.6.4.4 Fig. 1.6-6

	<ul style="list-style-type: none"> <li>• Establish staging area in Teller.</li> <li>• Establish field command post in Teller.</li> <li>• Chadux response personnel depart Anchorage on chartered aircraft. 24 responders, 3 Chadux managers, 1 ADEC and 1 USCG.</li> <li>• M/V Seven Seas &amp; M/V Morning Thunder depart Aleknagik 1600, ETA Port Clarence 75 hours.</li> <li>• ATB skimming operations stop and vessels proceed to CG Station.</li> <li>• Nome equipment arrives in Teller 1730.</li> <li>• VML ATB's beach at the CG station to meet personnel at 1745.</li> <li>• Establish housing in Nome and Teller.</li> <li>• Establish meal service.</li> </ul>		<ul style="list-style-type: none"> <li>• Cargo aircraft arrives in Anchorage at 2205.</li> <li>• ATB Naniq and 28' landing craft arrive in Teller at 2230.</li> <li>• 2<sup>nd</sup> Passenger flight arrives in Nome at 2320.</li> <li>• Nome equipment offloaded from trucks and staged at 2330.</li> <li>• Crew arriving in Nome are provided an initial site status and safety briefing and given their assignments at 2340.</li> <li>• Trucks return to Nome at 2345.</li> <li>• Passenger aircraft departs Nome returning to Anchorage at 0005.</li> <li>• ATB Naniq offloaed equipment in Teller and leaves loaders for staging area use 0015.</li> <li>• Cargo aircraft departs Anchorage for Nome at 0035.</li> <li>• 28' LC and Naniq workboat booms western opening to Brevig Lagoon in an exclusion configuration with 100' of shore seal boom anchoring the 400' of containment boom to shore, anchors are placed approximately every 50' of the containment boom (EXC. #1) at 0130. Naniq workboat departs to meet up with Naniq at spill site. 28' landing craft returns to Teller.</li> <li>• ATB Naniq loads 2,000' of containment boom for deployment at tanker. 0130</li> <li>• Passenger aircraft arrives in Anchorage at 0135.</li> <li>• Escort Tug and workboat booms eastern opening to Brevig Lagoon in an exclusion configuration with 100' of shore seal boom anchoring the 300' of containment boom to shore anchors are placed approximately every 50' of the containment boom (EXC. #2) 0140.</li> <li>• Trucks arrive in Nome at 0155.</li> <li>• ATB Naniq departs Teller to transit to spill site at 0200.</li> <li>• Cargo aircraft arrives in Nome at 0210.</li> <li>• Cargo offloaded at 0345.</li> <li>• ATB Naniq and 28' LC begin boom deployment around tanker 0330.</li> <li>• Passenger aircraft departs Anchorage for Teller with 26 AAC responders at 0400.</li> <li>• Cargo aircraft departs Nome to return to Anchorage at 0430.</li> <li>• Equipment is transported by truck to Teller staging area at 0530.</li> <li>• ATB Naniqk begins skimming operations at 0535.</li> </ul>	
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			<ul style="list-style-type: none"> <li>• Passenger aircraft arrives in Teller with 26 responders at 0545.</li> </ul>	
Transfer and Storage or Recovered Oil/Water; Volume Estimating Procedure	<ul style="list-style-type: none"> <li>• Request nearest barge of opportunity from APD&amp;T operators. (ETA 72 hrs)</li> <li>• Sound tanks</li> <li>• Transfer cargo to undamaged tanks/voids</li> </ul>	1.6.7 1.6.8 1.6.9	<ul style="list-style-type: none"> <li>• ATB's to sound tanks each shift.</li> </ul>	1.6.7 1.6.8 1.6.9
Plans, Procedures and Locations for Temporary Storage and Disposal	<ul style="list-style-type: none"> <li>• Permit for decanting recovered water back into containment area is prepared and submitted to ADEC</li> <li>• Identify required permits and begin permit applications.</li> </ul>	1.6.8 3.3.2	<ul style="list-style-type: none"> <li>• ATB's are being utilized for temporary storage.</li> </ul>	1.6.8 3.3.2
Wildlife Protection Plan	<ul style="list-style-type: none"> <li>• Establish contact with resource agencies</li> <li>• Identify environmentally sensitive areas</li> </ul>	1.6.10	<ul style="list-style-type: none"> <li>• Monitor wildlife in spill area</li> </ul>	1.6.10
Shoreline Cleanup				
Non-mechanical Response	N/A	1.7	N/A	1.7

**TABLE 1.6-17  
PORT CLARENCE SCENARIO STRATEGY – DAY 2**

ADEC Requirement 18 AAC 75.425(e)(1)(F)	Timeline – Actions Taken Day 2 0600 -1800 hours	VML CPLAN Section Reference	Timeline – Actions Taken Day 2 1800 – 0600 hours	VML CPLAN Section Reference
Safety	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1
Notification				
Stopping Discharge at Source and Lightering	<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Oil continues to leak from damaged tanks.</li> </ul>	1.6.1	<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Oil continues to leak from damaged tanks.</li> </ul>	1.6.1
Preventing or Controlling Fire Hazards	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2
Surveillance and Tracking of Oil; Forecasting Shoreline Contact Points	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-9	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-9
Protection of Environmentally Sensitive Areas and Areas of Public Concern	<ul style="list-style-type: none"> <li>• Work with Brevig Mission and Teller to identify areas of concern that may need protection.</li> </ul>	3.10.3	<ul style="list-style-type: none"> <li>• Establish 2 exclusion booming locations at the openings to Brevig Lagoon.</li> <li>• Monitor and review protection strategies based on surveillance reports.</li> </ul>	3.10.3
Spill Containment and Control Actions & Spill Recovery Procedures	<ul style="list-style-type: none"> <li>• Shift change at 0600. ATB's use skiffs to perform personnel change in Teller, the 28' landing craft will transport personnel to escort tug.</li> <li>• Cargo aircraft arrives in Anchorage at 0605.</li> <li>• Trucks with response equipment arrive from Nome at 0740.</li> <li>• Containment booming at tanker completed. 0800</li> <li>• Cargo aircraft departs Anchorage for Nome at 0915.</li> <li>• Trucks depart Teller to return to Nome at 0930.</li> <li>• Launch 22' workboat at 0935.</li> </ul>	1.5.1 1.6.6 1.6.4.1 1.6.4.4 Fig. 1.6-5	<ul style="list-style-type: none"> <li>• Shift change at 1800 ATB's use skiffs to perform personnel change in Teller, the 28' landing craft will transport personnel to escort tug and Entrapment Site 1 will use 22' workboat.</li> <li>• Recovery operations continue – See table 1.6-23 for individual recovery site details.</li> <li>• Trucks depart Teller returning to Nome at 1815.</li> <li>• 28' Landing craft delivers Lamor 30 skimmer to ATB Cavek at 2015.</li> <li>• Trucks arrive in Nome at 2030.</li> </ul>	1.5.1 1.6.6 1.6.4.1 1.6.4.4

	<ul style="list-style-type: none"> <li>• 22' workboat with 3 responders departs Teller for Entrapment Site 1 at 0945.</li> <li>• 28'LC begins deployment of entrapment (Entrapment Site 1) configuration near USCG station with the 500' Containment boom, anchor package, Desmi minimax skimmer, (2) 20,000 gal land bladder, centrifugal pump and hose kit at 1000.</li> <li>• 22' workboat with Entrapment Site 1 crew arrives on site at 1030.</li> <li>• 3<sup>rd</sup> Cargo flight arrives in Nome at 1045.</li> <li>• Trucks arrive back in Nome at 1140.</li> <li>• Entrapment Site 1 setup at 1210.</li> <li>• 28' LC departs Entrapment Site 1 and returns to Teller at 1215.</li> <li>• Recovery operations at Entrapment Site 1 begin at 1215.</li> <li>• Cargo offloaded from aircraft 1300.</li> <li>• 28' LC arrives in Teller at 1320.</li> <li>• Cargo aircraft departs Nome for Anchorage at 1345.</li> <li>• Trucks are loaded with equipment for delivery to Teller at 1415.</li> <li>• 28' LC to conduct a survey of Port Clarence for safety at each operation at 1430.</li> <li>• Cargo aircraft arrives in Anchorage at 1515.</li> <li>• Trucks with response equipment from Nome arrive in Teller 1630.</li> <li>• Equipment offloaded in Teller at 1715.</li> <li>• 28' LC returns to Teller to load equipment, and perform shift change 1745.</li> </ul>		<ul style="list-style-type: none"> <li>• Escort tug returns to Teller to load 500' of containment boom to assist ATB Naniq with open water recovery at 2045.</li> <li>• ATB Cavek deploys the Lamor 30 skimmer in place of Manta Ray skimmer at 2140.</li> <li>• Escort tug departs Teller to meet up with the ATB Naniq at 2200.</li> <li>• Escort tug arrives at the ATB Naniq and begins to deploy the containment boom to be towed in a "J" configuration with the ATB Naniq for open water recovery at 2315.</li> <li>• ATB Naniq begins open water recovery operations with the escort tug handling boom. 2340</li> </ul>	
Transfer and Storage or Recovered Oil/Water; Volume Estimating Procedure	<ul style="list-style-type: none"> <li>• ATB's to sound tanks each shift.</li> </ul>	1.6.7 1.6.8 1.6.9	<ul style="list-style-type: none"> <li>• ATB's to sound tanks each shift.</li> </ul>	1.6.7 1.6.8 1.6.9
Plans, Procedures and Locations for Temporary Storage and Disposal	<ul style="list-style-type: none"> <li>• ATB's and land bladders are being utilized for temporary storage.</li> </ul>	1.6.8 3.3.2	<ul style="list-style-type: none"> <li>• ATB's and land bladders are being utilized for temporary storage.</li> </ul>	1.6.8 3.3.2
Wildlife Protection Plan	<ul style="list-style-type: none"> <li>• Develop Wildlife Protection Plan</li> </ul>	1.6.10	<ul style="list-style-type: none"> <li>• Monitor the presence of wildlife in spill area.</li> </ul>	1.6.10
Shoreline Cleanup			<ul style="list-style-type: none"> <li>•</li> </ul>	
Non-mechanical Response	N/A	1.7	N/A	1.7

**TABLE 1.6-18  
PORT CLARENCE SCENARIO STRATEGY – DAY 3**

ADEC Requirement 18 AAC 75.425(e)(1)(F)	Timeline – Actions Taken Day 3 0600 -1800 hours	VML CPLAN Section Reference	Timeline – Actions Taken Day 3 1800 – 0600 hours	VML CPLAN Section Reference
Safety	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1
Notification				
Stopping Discharge at Source and Lightering	<ul style="list-style-type: none"> <li>• Mate and deckhand sound tanks, the flow of oil has stopped. A total of 90,000 bbls of oil can't be accounted for. 0700</li> <li>• Monitor water for further signs of leak.</li> <li>• Develop lightering plan with assistance of salvage provider.</li> </ul>	1.6.1	<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Monitor water for further signs of leak.</li> </ul>	1.6.1
Preventing or Controlling Fire Hazards	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2
Surveillance and Tracking of Oil; Forecasting Shoreline Contact Points	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-9	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-9
Protection of Environmentally Sensitive Areas and Areas of Public Concern	<ul style="list-style-type: none"> <li>• Monitor and review protection strategies based on surveillance reports.</li> </ul>	3.10.3	<ul style="list-style-type: none"> <li>• Monitor and review protection strategies based on surveillance reports.</li> </ul>	3.10.3
Spill Containment and Control Actions & Spill Recovery Procedures	<ul style="list-style-type: none"> <li>• Shift change at 0600.</li> <li>• 28' LC, 18' workboat and 18' inflatable load equipment to establish 2 additional entrapment sites. Entrapment Site 2 will be setup south of Ent. Site 1, Ent. Site 3 will be set up to the west of Exc. 1. 0615</li> <li>• Recovery operations continue – See table 1.6-23 for individual recovery site details.</li> <li>• 28' LC, 18' workboat and 18' Inflatable depart Teller to</li> </ul>	1.5.1 1.6.6 1.6.4.1 1.6.4.4 Fig. 1.6-5	<ul style="list-style-type: none"> <li>• Shift Change at 1800.</li> <li>• Recovery operations continue – See table 1.6-23 for individual recovery site details.</li> <li>• 28' LC loads equipment and personnel to establish 2 additional entrapment sites. Entrapment Site 4 will be setup near Brevig Mission, Ent. Site 5 will be set up to the east of Ent. Site 4 1930.</li> <li>• Entrapment Site 4 is established using 500' containment</li> </ul>	1.5.1 1.6.6 1.6.4.1 1.6.4.4 Fig. 1.6-5

	<p>establish Entrapment Site 3 at 0830.</p> <ul style="list-style-type: none"> <li>• Recovery operations at Naniq stop to allow Naniq to empty bladders at Entrapment Site 1 at 0900.</li> <li>• Naniq arrives at Entrapment Site 1 at 0940 and prepares to transfer liquids from the bladders at the site.</li> <li>• 28' LC, 18' workboat and 18' Inflatable arrive at Entrapment Site 2 and begin equipment set up at 0945.</li> <li>• ATB Naniq begins transfer of liquids from bladders at 1000.</li> <li>• Entrapment Site 2 is setup the 18' workboat will remain onsite to operate the other vessels depart for Entrapment Site 3 at 1045.</li> <li>• Entrapment Site 2 begins recovery operations at 1100.</li> <li>• 28' LC and 18' Inflatable arrive at Ent. Site 3 and begin equipment setup at 1130.</li> <li>• ATB Naniq completes the transfer of 952 bbls of liquids from Entrapment Site 1 at 1150.</li> <li>• Ent. Site 3 is setup is complete at 1245.</li> <li>• Entrapment Site 3 begins recovery operations at 1255.</li> </ul>		<p>boom, 10,000 gal land bladder, Lamor 12 skimmer, anchors and hose kit. a crew of 3 will be left to operate site. 2115.</p> <ul style="list-style-type: none"> <li>• Entrapment Site 4 begins recovery operations at 2125.</li> <li>• Entrapment Site 5 is established using 500' containment boom, 10,000 gal land bladder, Lamor 12 skimmer, anchors and hose kit. a crew of 3 will be left to operate site. 2220</li> <li>• Entrapment Site 5 begins recovery operation at 2230.</li> </ul>	
Transfer and Storage or Recovered Oil/Water; Volume Estimating Procedure	<ul style="list-style-type: none"> <li>• ATB's to sound tanks each shift.</li> <li>• ATB Naniq Transfers recovered liquids from ENT #1. Total transfer from ENT #1 was 952 bbls of recovered liquids. Volume was determined by sounding receiving tank prior to and after transfer using a sounding tape and water indicator paste.</li> </ul>	1.6.7 1.6.8 1.6.9	<ul style="list-style-type: none"> <li>• ATB's to sound tanks each shift.</li> </ul>	1.6.7 1.6.8 1.6.9
Plans, Procedures and Locations for Temporary Storage and Disposal	<ul style="list-style-type: none"> <li>• ATB's and land bladders are being utilized for temporary storage.</li> <li>• Develop waste management plan.</li> </ul>	1.6.8 3.3.2	<ul style="list-style-type: none"> <li>• ATB's and land bladders are being utilized for temporary storage.</li> </ul>	1.6.8 3.3.2
Wildlife Protection Plan	<ul style="list-style-type: none"> <li>• Continue to monitor for impacted wildlife.</li> </ul>	1.6.10	<ul style="list-style-type: none"> <li>• Continue to monitor for impacted wildlife.</li> </ul>	
Shoreline Cleanup				
Non-mechanical Response	N/A	1.7	N/A	1.7

**TABLE 1.6-19  
PORT CLARENCE SCENARIO STRATEGY – DAYS 4 & 5**

ADEC Requirement 18 AAC 75.425(e)(1)(F)	Timeline – Actions Taken Day 4 0600 -0559 hours	VML CPLAN Section Reference	Timeline – Actions Taken Day 5 0600 – 0559 hours	VML CPLAN Section Reference
Safety	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1
Notification				
Stopping Discharge at Source and Lightering	<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Monitor water for further signs of leak.</li> <li>• Begin lightering operations with APD&amp;T barge (77,553 bbl capacity) at 1500.</li> </ul>		<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Monitor water for further signs of leak.</li> <li>• Lightering operations stop to allow barge to receive transfer from ATB Naniq at 0300. A total of 18,000 bbls of product removed from tanker.</li> </ul>	1.6.1
Preventing or Controlling Fire Hazards	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2
Surveillance and Tracking of Oil; Forecasting Shoreline Contact Points	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-9	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-9
Protection of Environmentally Sensitive Areas and Areas of Public Concern	<ul style="list-style-type: none"> <li>• Monitor and review protection strategies based on surveillance reports.</li> <li>• Work with the Alaska Office of History and Archaeology to identify any potential areas of concern within the spill area.</li> </ul>	3.10.3	<ul style="list-style-type: none"> <li>• Monitor and review protection strategies based on surveillance reports.</li> </ul>	3.10.3
Spill Containment and Control Actions & Spill Recovery Procedures	<ul style="list-style-type: none"> <li>• Recovery operations continue – See table 1.6-23 for individual recovery site details.</li> <li>• APD&amp;T Barge arrives in Port Clarence at 1200.</li> <li>• M/V Seven Seas and M/V Morning Thunder arrive in Teller at 1900.</li> </ul>	1.5.1 1.6.6 1.6.4.1 1.6.4.4 Fig. 1.6-5	<ul style="list-style-type: none"> <li>• Recovery operations continue – See table 1.6-23 for individual recovery site details.</li> </ul>	1.5.1 1.6.6 1.6.4.1 1.6.4.4 Fig. 1.6-5
Transfer and Storage or Recovered	<ul style="list-style-type: none"> <li>• Recovered liquid transfer from Ent. Site 1, Ent. Site 2 and Ent. Site 3 to the ATB Naniq. Each transfer was 952 bbls for a total transfer of 2,856 bbls. The volume was estimated by</li> </ul>	Table 1.2-3 1.6.7 1.6.8	<ul style="list-style-type: none"> <li>• Recovered liquid transfer from Ent. Site 1, Ent. Site 2, Ent. Site 4 and Ent. Site 5 to the ATB Naniq. Transfer was 952 bbls for Ent. Site 1 &amp; 2, and 476 bbls each for Ent. Sites 4 &amp;</li> </ul>	Table 1.2-3 1.6.7 1.6.8

Oil/Water; Volume Estimating Procedure	sounding tanks prior to and after each transfer.	1.6.9	5 for a total transfer of 2,856 bbls. The volume was estimated by sounding tanks prior to and after each transfer. <ul style="list-style-type: none"> <li>• ATB Naniq arrives at APD&amp;T Barge and ties up to transfer cargo at 0330.</li> <li>• ATB Naniq to APD&amp;T Barge transfer begins 0415</li> <li>• Recovered liquid transfer from Ent. Site 3 to ATB Cavek. Transfer was 952 bbls. The volume was estimated by sounding tanks prior to and after transfer.</li> </ul>	1.6.9
Plans, Procedures and Locations for Temporary Storage and Disposal	<ul style="list-style-type: none"> <li>• ATB's, land bladders and APD&amp;T Barge are being utilized for temporary storage.</li> </ul>	1.6.8 3.3.2	<ul style="list-style-type: none"> <li>• ATB's, land bladders and APD&amp;T Barge are being utilized for temporary storage.</li> </ul>	1.6.8 3.3.2
Wildlife Protection Plan	<ul style="list-style-type: none"> <li>• Continue to monitor for impacted wildlife.</li> </ul>	1.6.10	<ul style="list-style-type: none"> <li>• Continue to monitor for impacted wildlife.</li> </ul>	1.6.10
Shoreline Cleanup			<ul style="list-style-type: none"> <li>•</li> </ul>	
Non-mechanical Response	N/A	1.7	N/A	1.7

**TABLE 1.6-20  
PORT CLARENCE SCENARIO STRATEGY – DAYS 6 & 7**

ADEC Requirement 18 AAC 75.425(e)(1)(F)	Timeline – Actions Taken Day 6 0600 -0559 hours	VML CPLAN Section Reference	Timeline – Actions Taken Day 7 0600 – 0559 hours	VML CPLAN Section Reference
Safety	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1
Notification				
Stopping Discharge at Source and Lightering	<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Monitor water for further signs of leak.</li> <li>• Resume lightering operations with APD&amp;T barge (77,553 bbl capacity) at 0815.</li> </ul>		<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Monitor water for further signs of leak.</li> <li>• Lightering operations stops at 0815 an additional 18,000 bbls removed from tanker.</li> </ul>	1.6.1
Preventing or Controlling Fire Hazards	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2
Surveillance and Tracking of Oil; Forecasting Shoreline Contact Points	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-9	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-9
Protection of Environmentally Sensitive Areas and Areas of Public Concern	<ul style="list-style-type: none"> <li>• Monitor and review protection strategies based on surveillance reports.</li> </ul>	3.10.3	<ul style="list-style-type: none"> <li>• Monitor and review protection strategies based on surveillance reports.</li> </ul>	3.10.3
Spill Containment and Control Actions & Spill Recovery Procedures	<ul style="list-style-type: none"> <li>• Recovery operations continue – See table 1.6-23 for individual recovery site details</li> </ul>	1.5.1 1.6.6 1.6.4.1 1.6.4.4 Fig. 1.6-5	<ul style="list-style-type: none"> <li>• Recovery operations continue – See table 1.6-23 for individual recovery site details.</li> <li>• APD&amp;T Barge to begin recovery operations with M/V Seven Seas north of the tanker in the leading edge. Barge will use the onboard pump and Skimpak 18000 skimmer, M/V Seven seas will bring 500' containment boom from Teller. 1330</li> <li>• M/V Seven seas deploys containment boom to be towed in a "J" configuration, the barge deploys the skimmer. 1415</li> <li>• Barge recovery operations begin at 1500.</li> </ul>	1.5.1 1.6.6 1.6.4.1 1.6.4.4 Fig. 1.6-5

			<ul style="list-style-type: none"> <li>• ATB Cavek to begin open water recovery operations with M/V Morning Thunder. M/V Morning Thunder will bring 500' of containment boom from Teller.1600</li> <li>• ATB Cavek and M/V Morning Thunder begin recovery operation at 1700.</li> </ul>	
Transfer and Storage or Recovered Oil/Water; Volume Estimating Procedure	<ul style="list-style-type: none"> <li>• ATB Naniq to APD&amp;T Barge transfer completed at 0705 for a total transfer of 7,864.8 bbls. Volume estimated by sounding tanks prior to transfer and pump rate of discharging vessel.</li> <li>• ATB Cavek transfers recovered liquids from Ent. Site 1 (476 bbls), 3 (952 bbls) , 4 (238 bbls) &amp; 5 (238 bbls) foar a total of 1,904 bbls. Volume estimated by sounding receiving tanks prior to and after transfer.</li> </ul>	Table 1.2-3 1.6.7 1.6.8 1.6.9	<ul style="list-style-type: none"> <li>• ATB Cavek transfers recovered liquids from Ent. Sites 1 (476 bbls) &amp; 2 (952 bbls) for a total of 1,428 bbls. Volume estimated by sounding receiving tanks prior to and after transfer.</li> <li>• ATB Cavek meets up with APD&amp;T Barge to transfer cargo at 0915.</li> <li>• ATB Cavek begins discharging at 0945.</li> <li>• ATB Cavek completes transfer of 9,624 bbls at 1330. Volume estimated by sounding tanks prior to transfer and pump rate of discharging vessel.</li> </ul>	Table 1.2-3 1.6.7 1.6.8 1.6.9
Plans, Procedures and Locations for Temporary Storage and Disposal	<ul style="list-style-type: none"> <li>• ATB's, land bladders and APD&amp;T Barge are being utilized for temporary storage.</li> </ul>	1.6.8 3.3.2	<ul style="list-style-type: none"> <li>• ATB's, land bladders and APD&amp;T Barge are being utilized for temporary storage.</li> </ul>	1.6.8 3.3.2
Wildlife Protection Plan	<ul style="list-style-type: none"> <li>• Continue to monitor for impacted wildlife.</li> </ul>	1.6.10	<ul style="list-style-type: none"> <li>• Continue to monitor for impacted wildlife.</li> </ul>	1.6.10
Shoreline Cleanup			<ul style="list-style-type: none"> <li>• Establish procedures for the evaluation of shoreline impacts.</li> </ul>	1.6.11
Non-mechanical Response	N/A	1.7	N/A	1.7

**TABLE 1.6-21  
PORT CLARENCE SCENARIO STRATEGY – DAYS 8 & 9**

<b>ADEC Requirement 18 AAC 75.425(e)(1)(F)</b>	<b>Timeline – Actions Taken Day 8 0600 -0559 hours</b>	<b>VML CPLAN Section Reference</b>	<b>Timeline – Actions Taken Day 9 0600 – 0559 hours</b>	<b>VML CPLAN Section Reference</b>
Safety	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1
Notification				
Stopping Discharge at Source and Lightering	<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Monitor water for further signs of leak.</li> <li>• Resume lightering operations with APD&amp;T barge (77,553 bbl capacity) at 0815.</li> </ul>		<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Monitor water for further signs of leak.</li> <li>• Lightering operations stops at 0815 an additional 18,000 bbls removed from tanker.</li> </ul>	1.6.1
Preventing or Controlling Fire Hazards	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2
Surveillance and Tracking of Oil; Forecasting Shoreline Contact Points	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-9	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-9
Protection of Environmentally Sensitive Areas and Areas of Public Concern	<ul style="list-style-type: none"> <li>• Monitor and review protection strategies based on surveillance reports.</li> </ul>	3.10.3	<ul style="list-style-type: none"> <li>• Monitor and review protection strategies based on surveillance reports.</li> </ul>	3.10.3
Spill Containment and Control Actions & Spill Recovery Procedures	<ul style="list-style-type: none"> <li>• Recovery operations continue – See table 1.6-23 for individual recovery site details</li> </ul>	1.5.1 1.6.6 1.6.4.1 1.6.4.4 Fig. 1.6-5	<ul style="list-style-type: none"> <li>• Recovery operations continue – See table 1.6-23 for individual recovery site details.</li> </ul>	1.5.1 1.6.6 1.6.4.1 1.6.4.4 Fig. 1.6-5
Transfer and Storage or Recovered Oil/Water; Volume	<ul style="list-style-type: none"> <li>• ATB Naniq transferes recovered liquids from Ent. Sites 1 (952 bbls) &amp; 2 (476 bbls) for a total of 1,428 bbls. Volume estimated by sounding receiving tanks prior to and after transfer.</li> </ul>	Table 1.2-3 1.6.7 1.6.8 1.6.9		

Estimating Procedure	<ul style="list-style-type: none"> <li>• ATB Cavek transfers recovered liquids from Ent. Sites 2 (952 bbls), 4 (476 bbls) &amp; 5 (476 bbls) for a total of 1,904 bbls. Volume estimated by sounding receiving tanks prior to and after transfer.</li> </ul>			
Plans, Procedures and Locations for Temporary Storage and Disposal	<ul style="list-style-type: none"> <li>• ATB's, land bladders and APD&amp;T Barge are being utilized for temporary storage.</li> </ul>	1.6.8 3.3.2	<ul style="list-style-type: none"> <li>• ATB's, land bladders and APD&amp;T Barge are being utilized for temporary storage.</li> </ul>	1.6.8 3.3.2
Wildlife Protection Plan	<ul style="list-style-type: none"> <li>• Continue to monitor for impacted wildlife.</li> </ul>	1.6.10	<ul style="list-style-type: none"> <li>• Continue to monitor for impacted wildlife.</li> </ul>	1.6.10
Shoreline Cleanup	<ul style="list-style-type: none"> <li>• Organize SCAT teams</li> </ul>	1.6.11	<ul style="list-style-type: none"> <li>• Begin development of shoreline cleanup plan.</li> </ul>	1.6.11 Table 1.6-8
Non-mechanical Response	N/A	1.7	N/A	1.7

**TABLE 1.6 –22  
EQUIPMENT AND PERSONNEL ASSIGNMENTS  
(SCENARIO 1)**

**ACC Nome Hub**

Containment Boom 20’’	2,000’	
Containment Boom 20’’	1,000’	300’ – Exclusion Site 2 300’ – Staging (Teller)
Anchor Kit	4	2 – Tanker Containment 1 – Exclusion Site 1 1- Exclusion Site 2

**1<sup>st</sup> Cargo Flight**

28’ Landing Craft	1	On water
Anchor Packages	2	1 – Entrapment Site 1 1 – Entrapment Site 2
Sorbent Boom	10	
Exposure Suits	20	Assigned to responders
PPE Kit	2	
Shore Seal Boom	200’	100’ – EXC. #1 100’ – EXC. #2
Hose kit	2	1 – Entrapment Site 1 1 – Entrapment Site 2
Desmi minimax skimmer	1	Entrapment Site 1
Manta Ray skimmer	2	1 – Entrapment Site 2 1 – Entrapment Site 3
Centrifugal pump	2	1 – Entrapment Site 1 1 – Entrapment Site 2
20,000 gal land bladder	2	2 – Entrapment Site 1

**2<sup>nd</sup> Cargo Flight**

22’ workboat	1	Entrapment Site 1
Centrifugal pump	2	1 – Entrapment Site 3 1 – Entrapment Site 4
Hose kit	2	1 – Entrapment Site 3 1 – Entrapment Site 4
Shore seal boom	150’	
Lamor 30 skimmer	1	ATB Cavek
Anchor package	2	1 – Entrapment Site 3 1 – Entrapment Site 4
Containment boom	1000’	500’ – Escort Tug 500’ – Entrapment Site 1
Lamor 12 skimmer	1	1 – Entrapment Site 4
20,000 gal land bladder	1	1 – Entrapment Site 2
Fastank	4	
Fueling kit	1	In field

**3<sup>rd</sup> Cargo Flight**

18’ workboat	1	Entrapment Site 2
Centrifugal pump	2	1 – Entrapment Site 5

Hose kit	2	1 – Entrapment Site 5
Lamor 12 skimmer	1	1 – Entrapment Site 5
Manta Ray skimmer	2	
Diaphragm pump	2	
Anchor Packages	2	1 – Entrapment Site 5
20,000 gal land bladder	2	1 - Entrapment Site 2 1 – Entrapment Site 3

#### 4<sup>th</sup> Cargo Flight

18' inflatable w/ 30 hp	1	Entrapment Site 3
10,000 gal land bladder	4	2- Entrapment Site 4 2 – Entrapment Site 5
20,000 gal land bladder	1	1 – Entrapment Site 3
Fastank	3	1 – Entrapment Site 5
Hose kit	2	
Containment boom	2000'	500' – APD&T barge 500' – ATB Cavek 500' – Entrapment Site 4 500' – Entrapment Site 5
Sorbent boom	20	

#### VML Equipment

Containment Boom	1,100'	1,100' - Tanker
Manta Ray Skimmer	2	1 – Cevak 1 - Naniq
Centrifugal Pump	2	1 – Cevak 1 - Naniq
Anchor Kit	2	2 – Booming at tanker
M/V Seven Seas (PFA)	1	
M/V Morning Thunder w/ skiff (PFA)	1	

#### ACC Personnel

Manager	3	Safety Officer – 1 Ops – 2
Responders (First Group)	24	ATB Cavek – 4(N) ATB Naniq – 4(N) 28' Landing Craft – 3(N) Escort Tug – 3 (N) Staging (Teller) – 6 (N) M/V Morning Thunder – 2 M/V Seven Seas – 2 (N)
Responders (Second Group)	26	Staging (Nome)– 6 (D) ATB Cavek – 4 (D) ATB Naniq – 4 (D) Staging (Teller) – 6 (D) Escort tug – 3 (D) 28' Landing Craft – 3 (D)
Responders (Third Group)	26	Ent. 2 – 3 (D) Ent. 2 – 3 (N) Ent. 3 – 3 (D) Ent. 3 – 3 (N) Staging (Nome) - 6 (N) Ent. 4 -3 (D) Ent. 4 – 3 (N) Ent. 5 – 3 (D) Ent. 5 – 3 (N) M/V Seven Seas – 2 (D)

#### PFA Personnel

M/V Seven Seas (PFA)	2	1 – Master 1- Mate
M/V Morning Thunder w/ skiff (PFA)	3	1 – Master 1 – Mate 1 - Engineer

**TABLE 1.6-23  
MECHANICAL RECOVERY CAPABILITY  
FOR VML RESPONSE SCENARIO NO. 1**

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Naniq	Manta Ray	1130 Day 1	214	42.8	1700	07:30	1,605	321	8,000	Continuous	321
Cavek	Manta Ray	1300	214	42.8	1700	04:00	856	171.2	10,000	Continuous	492.2
Cavek	Manta Ray	2150	214	42.8	1750	20:00	4,280	856	9,628.8	Continuous	1,348.2
Naniq	Manta Ray	0535	214	42.8	1935	14:00	2,996	599.2	7,479	Continuous	1,947.4
Ent. Site 1	Desmi Minimax	1215 Day 2	220	44	1427	2:12	475.2	95	476	1:20	2,042.4
Ent. Site 1	Desmi Minimax	1445	220	44	1657	2:12	475.2	95	476	1:20	2,137.4
Ent. Site 1	Desmi Minimax	1710	220	44	1855	1:45	378	75.6	380.8	1:04	2,213
Ent. Site 1	Desmi Minimax	1905	220	44	2050	1:45	378	75.6	380.8	1:04	2,288.6
Ent. Site 1	Desmi Minimax	2100	220	44	2224	1:24	302.4	60.5	304.6	0:51	2,349.1
Cavek	Lamor 30	2150	310	62	1750	20:00	6,200	1,240	8,388.8	Continuous	3,589.1
Ent. Site 1	Desmi Minimax	2235	220	44	2358	1:23	302.4	60.5	304.6	0:51	3,649.6
Naniq	Manta Ray	2340	214	42.8	0900	9:20	2,016	403.2	7,315.2	Continuous	4,052.8
Ent. Site 1	Desmi Minimax	0010	220	44	0117	1:07	241.2	48.2	243.7	0:41	4,101
Ent. Site 1	Desmi Minimax	0130	220	44	0237	1:07	241.2	48.2	243.7	0:41	4,149.2
Ent. Site 1	Desmi Minimax	0250	220	44	0344	0:54	194.4	38.8	195	0:33	4,188
Ent. Site 1	Desmi Minimax	0400	220	44	0454	0:54	194.4	38.8	195	0:33	4,226.8
Ent. Site 1	Desmi Minimax	0715 Day 3	220	44	0758	0:43	154.8	31	156	0:26	4,257.8

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 1	Desmi Minimax	0810	220	44	0853	0:43	154.8	31	156	0:26	4,288.8
Ent. Site 1	Desmi Minimax	0910	220	44	0944	0:34	122.4	24.5	124.8	full	4,313.3
Ent. Site 1	Desmi Minimax	0955	220	44	1029	0:34	122.4	24.5	124.8	full	4,337.8
Naniq	Transfer Ent. 1	1000	9.5 (400 gpm)		1050	0:50	476		6,912		
Naniq	Transfer Ent. 1	1100	9.5 (400 gpm)		1150	0:50	476		6,436		
Ent. Site 2	Manta Ray	1100	214	42.8	1313	2:13	473.4	94.6	476	1:20	4,432.4
Ent. Site 1	Desmi Minimax	1200	220	44	1412	2:12	475.2	95	476	1:20	4,527.4
Naniq	Manta Ray	1315	214	42.8	0515	16:00	3,424	684.8	5,960	Continuous	5,212.2
Ent. Site 2	Manta Ray	1330	214	42.8	1513	2:13	473.4	94.6	476	1:20	5,306.8
Ent. Site 1	Desmi Minimax	1430	220	44	1642	2:12	475.2	95	476	1:20	5,401.8
Ent. Site 2	Manta Ray	1525	214	42.8	1713	1:48	378	75.6	380.8	1:04	5,477.4
Ent. Site 3	Manta Ray	1255	214	42.8	1508	2:13	473.2	94.6	476	1:20	5,572
Ent. Site 3	Manta Ray	1515	214	42.8	1728	2:13	473.2	94.6	476	1:20	5,666.6
Ent. Site 1	Desmi Minimax	1845	220	44	2031	1:46	377.4	75.5	380.8	1:04	5,742.1
Ent. Site 2	Manta Ray	1855	214	42.8	2043	1:48	378	75.6	380.8	1:04	5,817.7
Ent. Site 3	Manta Ray	1900	214	42.8	2048	1:48	378	75.6	380.8	1:04	5,893.3
Ent. Site 1	Desmi Minimax	2040	220	44	2226	1:46	377.4	75.5	380.8	1:04	5,968.8
Ent. Site 2	Manta Ray	2056	214	42.8	2223	1:27	304.5	60.9	304.6	0:51	6,029.7
Ent. Site 3	Manta Ray	2101	214	42.8	2249	1:42	378	75.6	380.8	1:04	6,105.3
Ent. Site 4	Lamor 12	2125	76	15.2	0033	3:08	236.9	47.4	238	0:40	6,152.7

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Cavek	Lamor 30	2150	310	62	1750	20:00	6,200	1,240	7,148.8	Continuous	7,392.7
Ent. Site 1	Desmi Minimax	2235	220	44	0002	1:24	302.4	60.5	304.6	0:51	7,453.2
Ent. Site 5	Lamor 12	2230	76	15.2	0138	3:08	236.9	47.4	238	0:40	7,500.6
Ent. Site 2	Manta Ray	2238	214	42.8	0005	1:27	304.5	60.9	304.6	0:51	7,561.5
Ent. Site 3	Manta Ray	2310	214	42.8	0037	1:27	304.5	60.9	304.6	0:51	7,622.4
Ent. Site 1	Desmi Minimax	0015	220	44	0142	1:27	304.5	60.9	304.6	0:51	7,683.3
Ent. Site 2	Manta Ray	0020	214	42.8	0129	1:09	241.5	48.3	243.6	0:41	7,731.6
Ent. Site 3	Manta Ray	0055	214	42.8	0222	1:27	304.5	60.9	304.6	0:51	7,792.5
Ent. Site 4	Lamor 12	0130	76	15.2	0400	2:30	189	37.8	190.4	0:32	7,830.3
Ent. Site 2	Manta Ray	0144	214	42.8	0253	1:09	241.5	48.3	243.6	0:41	7,878.6
Ent. Site 1	Desmi Minimax	0155	220	44	0302	1:07	241.2	48.2	243.6	0:41	7,926.8
Ent. Site 5	Lamor 12	0235	76	15.2	0505	2:30	189	37.8	190.4	0:32	7,964.6
Ent. Site 3	Manta Ray	0240	214	42.8	0349	1:09	241.5	48.3	243.6	0:41	8,012.9
Ent. Site 2	Manta Ray	0310	214	42.8	0405	0:55	192.5	38.5	194.9	0:32	8,051.4
Ent. Site 1	Desmi Minimax	0315	220	44	0424	1:09	241.5	48.3	243.6	0:41	8,099.7
Ent. Site 4	Lamor 12	0630 Day 4	76	15.2	0830	2:00	151.2	30.2	152.3	0:26	8,129.9
Ent. Site 5	Lamor 12	0640	76	15.2	0840	2:00	151.2	30.2	152.3	0:26	8,160.1
Ent. Site 3	Manta Ray	0700	214	42.8	0809	1:09	241.5	48.3	243.6	0:41	8,208.4
Ent. Site 1	Desmi Minimax	0710	220	44	0804	0:54	194.4	38.8	194.8	0:33	8,247.2
Ent. Site 2	Manta Ray	0715	214	42.8	0810	0:55	192.5	38.5	194.9	0:32	8,285.7
Ent. Site 3	Manta Ray	0700	214	42.8	0755	0:55	192.5	38.5	194.9	0:32	8,324.2
Ent. Site 3	Manta Ray	0810	214	42.8	0905	0:55	192.5	38.5	194.9	0:32	8,362.7

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 2	Manta Ray	0825	214	42.8	0909	0:44	154	30.8	155.9	0:26	8,393.5
Ent. Site 1	Desmi Minimax	0830	220	44	0924	0:54	194.4	38.8	194.8	0:33	8,432.3
Ent. Site 4	Lamor 12	0910	76	15.2	1046	1:36	121	24.2	121.8	0:20	8,456.5
Ent. Site 3	Manta Ray	0920	214	42.8	1004	0:44	154	30.8	155.9	0:26	8,487.3
Ent. Site 5	Lamor 12	0920	76	15.2	1056	1:36	121	24.2	121.8	0:20	8,511.5
Ent. Site 2	Manta Ray	0925	214	42.8	1009	0:44	154	30.8	155.9	0:26	8,542.3
Ent. Site 1	Desmi Minimax	0940	220	44	1023	0:43	154.8	31	155.8	0:26	8,573.3
Ent. Site 3	Manta Ray	1019	214	42.8	1103	0:44	154	30.8	155.9	0:26	8,604.1
Ent. Site 2	Manta Ray	1024	214	42.8	1059	0:35	122.5	24.5	124.7	full	8,628.6
Naniq	Transfer Ent. 2	1110	9.5 (400 gpm)		1200	0:50	476		5,275.2		
Ent. Site 1	Desmi Minimax	1045	220	44	1128	0:43	154.8	31	155.8	0:26	8,659.6
Ent. Site 2	Manta Ray	1115	214	42.8	1150	0:35	122.5	24.5	124.7	full	8,684.1
Naniq	Transfer Ent. 2	1210	9.5 (400 gpm)		1300	0:50	476		4,799.2		
Ent. Site 3	Manta Ray	1118	214	42.8	1253	0:35	122.5	24.5	124.7	full	8,708.6
Ent. Site 5	Lamor 12	1125	76	15.2	1242	1:17	97	19.4	97.4	0:17	8,728
Ent. Site 4	Lamor 12	1115	76	15.2	1232	1:17	97	19.4	97.4	0:17	8,747.4
Ent. Site 1	Desmi Minimax	1145	220	44	1219	0:34	122.4	24.5	124.6	full	8,771.9
Ent. Site 5	Lamor 12	1310	76	15.2	1411	1:01	76.9	15.4	77.9	0:13	8,787.3
Ent. Site 2	Manta Ray	1320	214	42.8	1535	2:15	472.5	94.5	476	1:20	8,881.8
Naniq	Transfer Ent. 1	1330	9.5 (400 gpm)		1420	0:50	476		4,323.2		
Ent. Site 1	Desmi Minimax	1235	220	44	1309	0:34	122.4	24.5	124.6	full	8,906.3
Naniq	Transfer Ent. 1	1430	9.5 (400 gpm)		1520	0:50	476		3,847.2		

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 3	Manta Ray	1328	214	42.8	1403	0:35	122.5	24.5	124.7	full	8,930.8
Ent. Site 5	Lamor 12	1257	76	15.2	1358	1:01	76.9	15.4	77.9	0:13	8,946.2
Ent. Site 4	Lamor 12	1300	76	15.2	1401	1:01	76.9	15.4	77.9	0:13	8,961.6
Ent. Site 1	Desmi Minimax	1430	220	44	1642	2:12	475.2	95	476	1:20	9,056.6
Ent. Site 4	Lamor 12	1430	76	15.2	1549	0:49	61.7	12.3	62.3	full	9,068.9
Ent. Site 5	Lamor 12	1435	76	15.2	1559	0:49	61.7	12.3	62.3	full	9,081.2
Naniq	Transfer Ent. 3	1605	9.5 (400 gpm)		1655	0:50	476		3,371.2		
Naniq	Transfer Ent. 3	1705	9.5 (400 gpm)		1755	0:50	476		3,847.2		
Ent. Site 4	Lamor 12	1825	76	15.2	2133	3:08	236.8	47.4	238	0:40	9,128.6
Ent. Site 5	Lamor 12	1835	76	15.2	2143	3:08	236.8	47.4	238	0:40	9,176
Ent. Site 3	Manta Ray	1840	214	42.8	2055	2:15	472.5	94.5	476	1:20	9,270.5
Naniq	Manta Ray	1900	214	42.8	0500	10:00	2,140	428	3,371.2	Continuous	9,698.5
Ent. Site 1	Desmi Minimax	1915	220	44	2137	2:12	475.2	95	476	1:20	9,793.5
Ent. Site 2	Manta Ray	1920	214	42.8	2135	2:15	472.5	94.5	476	1:20	9,888
Ent. Site 3	Manta Ray	2110	214	42.8	2325	2:15	472.5	94.5	476	1:20	9,982.5
Ent. Site 2	Manta Ray	2145	214	42.8	2333	1:48	378	75.6	380.8	1:04	10,058.1
Ent. Site 1	Desmi Minimax	2152	220	44	2336	1:44	374.4	74.9	380.8	1:04	10,133
Ent. Site 4	Lamor 12	2213	76	15.2	0044	2:31	190.3	38	190.4	0:32	10,171
Ent. Site 5	Lamor 12	2243	76	15.2	0114	2:31	190.3	38	190.4	0:32	10,209
Cavek	Lamor 30	2150	310	62	1750	20:00	6,200	1,240	5,908.8	Continuous	11,449
Ent. Site 3	Manta Ray	2335	214	42.8	0123	1:48	378	75.6	380.8	1:04	11,524.6
Ent. Site 2	Manta Ray	2348	214	42.8	0136	1:48	378	75.6	380.8	1:04	11,600.2
Ent. Site 1	Desmi Minimax	2351	220	44	0135	1:44	374.4	74.9	380.8	1:04	11,675.1

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 3	Manta Ray	0135	214	42.8	0533	1:48	378	75.6	380.8	1:04	11,750.7
Ent. Site 4	Lamor 12	0146	76	15.2	0346	2:00	151.2	30.2	152.3	0:26	11,780.9
Ent. Site 1	Desmi Minimax	0150	220	44	0314	1:24	302.4	60.4	304.6	0:51	11,841.3
Ent. Site 2	Manta Ray	0151	214	42.8	0318	1:27	304.5	60.9	304.6	0:51	11,902.2
Ent. Site 5	Lamor 12	0200	76	15.2	0400	2:00	151.2	30.2	152.3	0:26	11,932.4
Ent. Site 1	Desmi Minimax	0330	220	44	0454	1:24	302.4	60.4	304.6	0:51	11,992.8
Ent. Site 5	Lamor 12	0445	76	15.2	0616	1:36	120.9	24.2	121.8	0:21	12,017
Naniq	Transfer Ent. 4	0630 Day 5	9.5 (400 gpm)		0655	0:25	238		2,943.2		
Ent. Site 4	Lamor 12	0645	76	15.2	0816	1:36	120.9	24.2	121.8	0:21	12,041.2
Ent. Site 2	Manta Ray	0700	214	42.8	0827	1:27	304.5	60.9	304.6	0:51	12,102.1
Ent. Site 3	Manta Ray	0710	214	42.8	0837	1:27	304.5	60.9	304.6	0:51	12,163
Ent. Site 1	Desmi Minimax	0720	220	44	0827	1:07	241.2	48.2	243.6	0:41	12,211.2
Ent. Site 5	Lamor 12	0725	76	15.2	0842	1:17	97	19.4	97.4	0:17	12,230.6
Naniq	Transfer Ent. 5	0745	9.5 (400 gpm)		0810	0:25	238		2,705.2		
Naniq	Manta Ray	0835	214	42.8	1835	10:00	2140	428	2,467.2	Continuous	12,658.6
Ent. Site 1	Desmi Minimax	0840	220	44	0947	1:07	241.2	48.2	243.6	0:41	12,706.8
Ent. Site 2	Manta Ray	0845	214	42.8	0952	1:07	241.2	48.2	243.7	0:41	12,755
Ent. Site 4	Lamor 12	0850	76	15.2	1007	1:17	97	19.4	97.4	0:17	12,774.4
Ent. Site 3	Manta Ray	0852	214	42.8	1019	1:27	304.5	60.9	304.6	0:51	12,835.3
Ent. Site 5	Lamor 12	0859	76	15.2	1000	1:01	76.9	15.4	77.8	0:13	12,850.7
Ent. Site 1	Desmi Minimax	1002	220	44	1056	0:54	194.4	38.8	194.8	0:33	12,889.5
Ent. Site 2	Manta Ray	1005	214	42.8	1112	1:07	241.2	48.2	243.7	0:41	12,937.7

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 5	Lamor 12	1023	76	15.2	1111	0:49	61.7	12.3	62.2	full	12,950
Ent. Site 3	Manta Ray	1040	214	42.8	1149	1:09	241.5	48.3	243.7	0:40	12,998.3
Ent. Site 4	Lamor 12	1044	76	15.2	1145	1:01	76.9	15.4	77.9	0:13	13,013.7
Ent. Site 1	Desmi Minimax	1111	220	44	1205	0:54	194.4	38.8	194.8	0:33	13,052.5
Ent. Site 2	Manta Ray	1125	214	42.8	1220	0:55	192.5	38.5	194.9	0:33	13,091
Ent. Site 5	Lamor 12	1130	76	15.2	1438	3:08	236.8	47.4	238	0:40	13,138.4
Ent. Site 4	Lamor 12	1158	76	15.2	1145	0:49	61.7	12.3	62.3	full	13,150.7
Ent. Site 3	Manta Ray	1200	214	42.8	1309	1:09	241.5	48.3	243.7	0:40	13,199
Ent. Site 4	Lamor 12	1205	76	15.2	1513	3:08	236.8	47.3	238	0:40	13,246.3
Ent. Site 1	Desmi Minimax	1220	220	44	1303	0:43	154.8	31	155.8	0:33	13,277.3
Ent. Site 2	Manta Ray	1230	214	42.8	1325	0:55	192.5	38.5	194.9	0:33	13,315.8
Ent. Site 1	Desmi Minimax	1315	220	44	1358	0:43	154.8	31	155.8	0:26	13,346.8
Ent. Site 3	Manta Ray	1319	214	42.8	1414	0:55	192.5	38.5	195	0:33	13,385.3
Ent. Site 2	Manta Ray	1335	214	42.8	1419	0:44	154	30.8	155.9	0:26	13,416.1
Ent. Site 1	Desmi Minimax	1410	220	44	1444	0:34	122.4	24.5	124.6	0:21	13,440.6
Ent. Site 3	Manta Ray	1420	214	42.8	1515	0:55	192.5	38.5	195	0:33	13,479.1
Ent. Site 2	Manta Ray	1430	214	42.8	1505	0:35	119	23.8	124.7	0:21	13,502.9
Ent. Site 1	Desmi Minimax	1454	220	44	1528	0:34	122.4	24.5	124.6	0:21	13,527.4
Ent. Site 2	Manta Ray	1515	214	42.8	1550	0:35	119	23.8	124.7	0:21	13,551.2
Ent. Site 3	Manta Ray	1520	214	42.8	1604	0:44	154	30.8	156	0:26	13,582
Ent. Site 3	Manta Ray	1822	214	42.8	1906	0:44	154	30.8	156	0:26	13,612.8
Ent. Site 4	Lamor 12	1825	76	15.2	2056	2:31	190.2	38	190.4	0:32	13,650.8
Ent. Site 5	Lamor 12	1840	76	15.2	2111	2:31	190.3	38	190.4	0:32	13,688.8

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 1	Desmi Minimax	1850	220	44	1917	0:27	97.2	19.4	99.7	0:17	13,708.2
Ent. Site 2	Manta Ray	1855	214	42.8	1935	0:28	98	19.6	99.8	0:17	13,727.8
Ent. Site 3	Manta Ray	1920	214	42.8	1955	0:35	122.5	24.5	124.8	0:21	13,752.3
Ent. Site 1	Desmi Minimax	1925	220	44	1952	0:27	97.2	19.4	99.7	0:17	13,771.7
Naniq	Transfer Ent. 4	1945	9.5 (400 gpm)		2010	0:25	238		2,039.2		
Ent. Site 2	Manta Ray	1945	214	42.8	2113	0:28	98	19.6	99.8	0:17	13,791.3
Ent. Site 1	Desmi Minimax	2005	220	44	2027	0:22	77	15.4	79.7	full	13,806.7
Ent. Site 3	Manta Ray	2005	214	42.8	2040	0:35	122.5	24.5	124.8	0:21	13,831.2
Naniq	Transfer Ent. 5	2040	9.5 (400 gpm)		2105	0:25	238		1,801.2		
Ent. Site 1	Desmi Minimax	2042	220	44	2104	0:22	77	15.4	79.7	full	13,846.6
Ent. Site 3	Manta Ray	2050	214	42.8	2118	0:28	98	19.6	99.8	0:17	13,866.2
Ent. Site 3	Manta Ray	2130	214	42.8	2158	0:28	98	19.6	99.8	0:17	13,885.8
Ent. Site 4	Lamor 12	2143	76	15.2	2343	2:00	151.2	30.2	152.3	0:26	13,916
Ent. Site 2	Manta Ray	2145	214	42.8	2207	0:22	77	15.4	79.8	full	13,931.4
Ent. Site 5	Lamor 12	2200	76	15.2	0000	2:00	120.9	24.2	152.3	0:26	13,955.6
Ent. Site 3	Manta Ray	2210	214	42.8	2232	0:22	77	15.4	79.8	full	13,971
Ent. Site 2	Manta Ray	2217	214	42.8	2239	0:22	77	15.4	79.8	full	13,986.4
Naniq	Transfer Ent. 1	2230	9.5 (400 gpm)		2320	0:50	476		1,563.2		
Ent. Site 3	Manta Ray	2244	214	42.8	2306	0:22	77	15.4	79.8	full	14,001.8

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Cavek	Transfer Ent. 3	2245	9.5 (400 gpm)		2340	0:50	476		5,432.8		
Cavek	Transfer Ent. 3	2350	9.5 (400 gpm)		0040	0:50	476		4,956.8		
Ent. Site 3	Manta Ray	2355	214	42.8	0210	2:15	472.5	94.5	476	1:20	14,096.3
Naniq	Transfer Ent. 1	2330	9.5 (400 gpm)		0020	0:50	476		1,087.2		
Ent. Site 1	Desmi Minimax	2345	220	44	0157	02:12	475.2	95	476	1:20	14,191.3
Ent. Site 4	Lamor 12	0010	76	15.2	0146	1:36	121	24.2	121.8	0:20	14,215.5
Ent. Site 5	Lamor 12	0036	76	15.2	0212	1:36	121	24.2	121.8	0:20	14,239.7
Naniq	Transfer Ent. 2	0100	9.5 (400 gpm)		0150	0:50	476		611.2		
Cavek	Lamor 30	0130	310	62	2130	20:00	6,200	1,240	3,716.8	Continuous	15,479.7
Naniq	Transfer Ent. 2	0200	9.5 (400 gpm)		0250	0:50	476		135.2		
Ent. Site 1	Desmi Minimax	0210	220	44	0422	02:12	475.2	95	476	1:20	15,574.7
Ent. Site 4	Lamor 12	0212	76	15.2	0329	1:17	97	19.4	97.4	0:16	15,594.1
Ent. Site 2	Manta Ray	0215	214	42.8	0430	02:15	472.5	94.5	476	1:20	15,688.6
Ent. Site 3	Manta Ray	0220	214	42.8	0435	2:15	472.5	94.5	476	1:20	15,783.1
Ent. Site 5	Lamor 12	0225	76	15.2	0342	1:17	97	19.4	97.4	0:16	15,802.5
Ent. Site 4	Lamor 12	0355	76	15.2	0456	1:01	76.7	15.4	77.9	0:13	15,817.9
Ent. Site 5	Lamor 12	0358	76	15.2	0447	0:49	61.7	12.3	62.3	full	15,830.2
Ent. Site 2	Manta Ray	0440	214	42.8	0655	02:15	472.5	94.5	476	1:20	15,924.7
Ent. Site 3	Manta Ray	0630	214	42.8	0818	1:48	378	75.6	380.8	1:04	16,000.3
Ent. Site 4	Lamor 12	0638	76	15.2	0727	0:49	61.7	12.3	62.3	full	16,012.6
Ent. Site 1	Desmi Minimax	0640 Day 6	220	44	0825	1:45	378	75.6	380.8	1:04	16,088.2
Ent. Site 5	Lamor 12	0645	76	15.2	0953	3:08	236.8	47.4	238	0:40	16,135.6

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 2	Manta Ray	0710	214	42.8	0858	1:48	378	75.6	380.8	1:04	16,211.2
Ent. Site 4	Lamor 12	0743	76	15.2	1051	3:08	236.8	47.4	238	0:40	16,258.6
Ent. Site 3	Manta Ray	0828	214	42.8	1016	1:48	378	75.6	380.8	1:04	16,334.2
Naniq	Manta Ray	0830	214	42.8	0430	20:00	4,280	856	8,000	Continuous	17,190.2
Ent. Site 1	Desmi Minimax	0835	220	44	1020	1:45	378	75.6	380.8	1:04	17,265.8
Ent. Site 2	Manta Ray	0910	214	42.8	1058	1:48	378	75.6	380.8	1:04	17,341.4
Ent. Site 3	Manta Ray	1026	214	42.8	1152	1:26	301	60.2	304.6	0:51	17,401.6
Ent. Site 1	Desmi Minimax	1030	220	44	1154	1:24	302.4	60.5	304.6	0:51	17,462.1
Ent. Site 5	Lamor 12	1048	76	15.2	1319	2:31	190.3	38	190.4	0:32	17,500.1
Ent. Site 2	Manta Ray	1110	214	42.8	1236	1:26	301	60.2	304.6	0:51	17,560.3
Ent. Site 4	Lamor 12	1146	76	15.2	1417	2:31	190.2	38	190.4	0:32	17,598.3
Ent. Site 3	Manta Ray	1208	214	42.8	1334	1:26	301	60.2	304.6	0:51	17,658.5
Ent. Site 1	Desmi Minimax	1210	220	44	1329	1:24	302.4	60.5	304.6	0:51	17,719
Ent. Site 2	Manta Ray	1245	214	42.8	1411	1:26	301	60.2	304.6	0:51	17,779.2
Ent. Site 1	Desmi Minimax	1340	220	44	1447	1:07	241.2	48.2	243.7	0:41	17,827.4
Ent. Site 3	Manta Ray	1345	214	42.8	1454	1:09	241.5	48.3	243.7	0:41	17,875.7
Ent. Site 5	Lamor 12	1408	76	15.2	1608	2:00	151.2	30.2	152.3	0:26	17,905.9
Ent. Site 2	Manta Ray	1426	214	42.8	1535	1:09	241.5	48.3	243.7	0:41	17,954.2
Ent. Site 1	Desmi Minimax	1503	220	44	1610	1:07	241.2	48.2	243.7	0:41	18,002.4
Ent. Site 3	Manta Ray	1505	214	42.8	1614	1:09	301	60.2	243.7	0:41	18,062.6

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 2	Manta Ray	1545	214	42.8	1654	1:09	241.5	48.3	243.7	0:41	18,110.9
Ent. Site 4	Lamor 12	1835	76	15.2	2035	2:00	151.2	30.2	152.3	0:26	18,141.1
Ent. Site 5	Lamor 12	1838	76	15.2	2013	1:35	119.7	24	121.8	0:21	18,165.1
Ent. Site 3	Manta Ray	1840	214	42.8	1935	0:55	192.5	38.5	195	0:33	18,203.6
Ent. Site 2	Manta Ray	1845	214	42.8	1940	0:55	192.5	38.5	195	0:33	18,242.1
Ent. Site 1	Desmi Minimax	1905	220	44	2000	0:55	192.5	38.5	195	0:33	18,280.6
Ent. Site 3	Manta Ray	1945	214	42.8	2029	0:44	154	30.8	156	0:26	18,311.4
Ent. Site 3	Manta Ray	1950	214	42.8	2045	0:55	192.5	38.5	195	0:33	18,349.9
Ent. Site 2	Manta Ray	1955	214	42.8	2050	0:55	192.5	38.5	195	0:33	18,388.4
Ent. Site 1	Desmi Minimax	2010	220	44	2105	0:55	192.5	38.5	195	0:33	18,426.9
Ent. Site 5	Lamor 12	2054	76	15.2	2211	1:17	97	19.4	97.4	0:17	18,446.3
Ent. Site 3	Manta Ray	2055	214	42.8	2139	0:44	154	30.8	156	0:26	18,477.1
Ent. Site 2	Manta Ray	2100	214	42.8	2144	0:44	154	30.8	156	0:26	18,507.9
Ent. Site 1	Desmi Minimax	2110	220	44	2153	0:43	154.8	31	156	0:26	18,538.9
Ent. Site 4	Lamor 12	2115	76	15.2	2251	1:36	121	24.2	121.8	0:21	18,563.1
Ent. Site 3	Manta Ray	2150	214	42.8	2234	0:44	154	30.8	156	0:26	18,593.9
Ent. Site 2	Manta Ray	2155	214	42.8	2239	0:44	154	30.8	156	0:26	18,624.7
Ent. Site 1	Desmi Minimax	2205	220	44	2248	0:43	154.8	31	156	0:26	18,655.7
Ent. Site 5	Lamor 12	2240	76	15.2	2341	1:01	76.9	15.4	77.9	0:13	18,671.1
Ent. Site 3	Manta Ray	2245	214	42.8	2320	0:35	122.5	24.5	124.8	0:21	18,695.6
Ent. Site 2	Manta Ray	2252	214	42.8	2327	0:35	122.5	24.5	124.8	0:21	18,720.1
Cavek	Transfer Ent. 5	2300	9.5 (400 gpm)		2325	0:25	238		3,478.8		

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 1	Desmi Minimax	2300	220	44	2335	0:35	122.5	24.5	124.8	0:21	18,744.6
Ent. Site 4	Lamor 12	2320	76	15.2	0037	1:17	97	19.4	97.4	0:17	18,764
Ent. Site 3	Manta Ray	2332	214	42.8	0007	0:35	122.5	24.5	124.8	0:21	18,788.5
Ent. Site 2	Manta Ray	2340	214	42.8	0015	0:35	122.5	24.5	124.8	0:21	18,813
Ent. Site 1	Desmi Minimax	2345	220	44	0020	0:35	122.5	24.5	124.8	0:21	18,837.5
Ent. Site 5	Lamor 12	0010	76	15.2	0059	0:49	61.7	12.3	62.3	full	18,849.8
Ent. Site 3	Manta Ray	0020	214	42.8	0048	0:28	98	19.6	99.8	0:17	18,869.4
Ent. Site 2	Manta Ray	0025	214	42.8	0053	0:28	98	19.6	99.8	0:17	18,889
Cavek	Transfer Ent. 4	0030	9.5 (400 gpm)		0055	0:25	238		3,240.8		
Ent. Site 1	Desmi Minimax	0030	220	44	0057	0:27	97.2	19.4	99.8	0:17	18,908.4
Ent. Site 3	Manta Ray	0100	214	42.8	0128	0:28	98	19.6	99.8	0:17	18,928
Ent. Site 2	Manta Ray	0105	214	42.8	0133	0:28	98	19.6	99.8	0:17	18,947.6
Ent. Site 5	Lamor 12	0109	76	15.2	0417	3:08	236.8	47.3	238	0:40	18,994.9
Ent. Site 4	Lamor 12	0110	76	15.2	0211	1:01	76.9	15.4	77.9	0:13	19,010.3
Ent. Site 1	Desmi Minimax	0112	220	44	0139	0:27	97.2	19.4	99.8	0:17	19,029.7
Ent. Site 3	Manta Ray	0140	214	42.8	0202	0:22	77	15.4	79.8	0:13	19,045.1
Ent. Site 2	Manta Ray	0148	214	42.8	0210	0:22	77	15.4	79.8	0:13	19,060.5
Ent. Site 1	Desmi Minimax	0150	220	44	0212	0:22	77	15.4	79.8	0:13	19,075.9
Cavek	Transfer Ent. 3	0215	9.5 (400 gpm)		0305	0:50	476		2,764.8		
Ent. Site 3	Manta Ray	0217	214	42.8	0239	0:22	77	15.4	79.8	0:13	19,091.3

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 2	Manta Ray	0220	214	42.8	0242	0:22	77	15.4	79.8	0:13	19,106.7
Ent. Site 1	Desmi Minimax	0227	220	44	0249	0:22	77	15.4	79.8	0:13	19,122.1
Ent. Site 4	Lamor 12	0235	76	15.2	0329	0:49	61.7	12.3	62.3	full	19,134.4
Ent. Site 3	Manta Ray	0249	214	42.8	0307	0:18	63	12.6	63.8	full	19,147
Ent. Site 1	Desmi Minimax	0300	220	44	0317	0:17	61.2	12.2	63.8	full	19,159.2
Cavek	Transfer Ent. 3	0315	9.5 (400 gpm)		0405	0:50	476		2,288.8		
Ent. Site 2	Manta Ray	0320	214	42.8	0338	0:18	63	12.6	63.8	full	19,171.8
Ent. Site 3	Manta Ray	0322	214	42.8	0537	2:15	472.5	94.5	476	1:20	19,266.3
Ent. Site 1	Desmi Minimax	0327	220	44	0342	0:17	61.2	12.2	63.8	full	19,278.5
Ent. Site 2	Manta Ray	0348	214	42.8	0406	0:18	63	12.6	63.8	full	19,291.1
Cavek	Transfer Ent. 1	0510	9.5 (400 gpm)		0600	0:50	476		1,812.8		
Cavek	Transfer Ent. 1	0610 Day7	9.5 (400 gpm)		0700	0:50	476		1,336.8		
Ent. Site 4	Lamor 12	0625	76	15.2	0933	3:08	236.9	47.4	238	0:40	19,338.5
Ent. Site 5	Lamor 12	0635	76	15.2	0905	2:30	189	37.8	190.4	0:40	19,376.3
Ent. Site 1	Desmi Minimax	0705	220	44	0917	2:12	475.2	95	476	1:20	19,471.3
Ent. Site 2	Manta Ray	0712	214	42.8	0927	2:15	472.5	94.5	476	1:20	19,565.8
Ent. Site 3	Manta Ray	0715	214	42.8	0930	2:15	472.5	94.5	476	1:20	19,660.3
Ent. Site 4	Lamor 12	0725	76	15.2	1033	3:08	236.9	47.4	238	0:40	19,707.7
Cavek	Transfer Ent. 2	0740	9.5 (400 gpm)		0830	0:50	476		860.8		
Naniq	Manta Ray	0830	214	42.8	1630	8:00	1,712	342.4	7,144	Continuous	20,050.1

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 1	Desmi Minimax	0927	220	44	1139	2:12	475.2	95	476	1:20	20,145.1
Ent. Site 3	Manta Ray	0940	214	42.8	1128	1:48	378	75.6	380.8	1:04	20,220.7
Ent. Site 5	Lamor 12	0955	76	15.2	1155	2:00	151.2	30.2	152.3	0:26	20,250.9
Ent. Site 4	Lamor 12	1023	76	15.2	1252	2:30	189	37.8	190.4	0:32	20,288.7
Ent. Site 2	Manta Ray	1057	214	42.8	1245	1:48	378	75.6	380.8	1:04	20,364.3
Ent. Site 3	Manta Ray	1130	214	42.8	1318	1:48	378	75.6	380.8	1:04	20,439.9
Ent. Site 1	Desmi Minimax	1150	220	44	1235	1:45	378	75.6	380.8	1:04	20,515.5
Ent. Site 5	Lamor 12	1231	76	15.2	1407	1:36	121	24.2	121.8	0:21	20,539.7
Ent. Site 1	Desmi Minimax	1245	220	44	1430	1:45	378	75.6	380.8	1:03	20,615.3
Ent. Site 4	Lamor 12	1334	76	15.2	1534	2:00	151.2	30.2	152.3	0:26	20,645.5
Ent. Site 3	Manta Ray	1336	214	42.8	1504	1:26	301	60.2	304.6	0:51	20,705.7
Ent. Site 2	Manta Ray	1347	214	42.8	1513	1:26	301	60.2	304.6	0:51	20,765.9
Ent. Site 3	Manta Ray	1514	214	42.8	1640	1:26	301	60.2	304.6	0:51	20,826.1
Cavek	Transfer Ent. 2	1430	9.5 (400 gpm)		1520	0:50	476		10,000		
Ent. Site 5	Lamor 12	1438	76	15.2	1554	1:16	95.8	19.2	97.4	0:17	20,845.3
Ent. Site 1	Desmi Minimax	1440	220	44	1606	1:26	301	60.2	304.6	0:51	20,905.5
APD&T Barge	Skimpak 18000	1500	428	85.6	1100	20:00	8560	1,712	24,065	Continuous	22,617.5
Cavek	Transfer Ent. 2	1530	9.5 (400 gpm)		1620	0:50	476		9,324		
Ent. Site 2	Manta Ray	1533	214	42.8	1748	2:15	472.5	94.5	476	1:20	22,712
Ent. Site 5	Lamor 12	1611	76	15.2	1712	1:01	76.9	15.4	77.9	0:13	22,727.4
Cavek	Lamor 30	1700	310	62	1300	20:00	6,200	1,240	8,848	Continuous	23,967.4
Naniq	Transfer Ent. 5	1740	9.5 (400 gpm)		1805	0:25	238		6,801.6		
Naniq	Transfer Ent. 5	1815	9.5 (400 gpm)		1840	0:25	238		6,563.6		

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 4	Lamor 12	1835	76	15.2	2010	1:35	119.7	24	121.8	0:21	23,991.4
Ent. Site 2	Manta Ray	1855	214	42.8	2110	2:15	472.5	94.5	476	1:20	24,085.9
Ent. Site 3	Manta Ray	1900	214	42.8	2009	1:09	241.5	48.3	243.7	0:41	24,134.2
Ent. Site 5	Lamor 12	1905	76	15.2	2212	3:07	235.6	47.1	238	0:40	24,181.3
Ent. Site 1	Desmi Minimax	1910	220	44	2036	1:26	301	60.2	304.6	0:51	24,241.5
Naniq	Transfer Ent. 4	1925	9.5 (400 gpm)		1950	0:25	238		6,563.6		
Naniq	Transfer Ent. 4	2020	9.5 (400 gpm)		2045	0:25	238		6,325.6		
Ent. Site 3	Manta Ray	2020	214	42.8	2129	1:09	241.5	48.3	243.7	0:41	24,289.8
Ent. Site 4	Lamor 12	2020	76	15.2	2327	3:07	235.6	47.1	238	0:40	24,336.9
Ent. Site 1	Desmi Minimax	2046	220	44	2203	1:17	241.2	48.2	243.7	0:41	24,385.1
Ent. Site 2	Manta Ray	2120	214	42.8	2308	1:48	378	75.6	380.8	1:04	24,460.7
Ent. Site 3	Manta Ray	2140	214	42.8	2235	0:55	192.5	38.5	195	0:33	24,499.2
Naniq	Manta Ray	2145	214	42.8	0645	9:00	1926	385.2	6,087.6	Continuous	24,884.4
Ent. Site 4	Lamor 12	2200	76	15.2	2301	1:01	76.9	15.4	77.9	0:13	24,899.8
Ent. Site 5	Lamor 12	2222	76	15.2	0129	3:07	235.6	47.1	238	0:40	24,946.9
Ent. Site 1	Desmi Minimax	2213	220	44	2330	1:17	241.2	48.2	243.7	0:41	24,995.1
Ent. Site 3	Manta Ray	2245	214	42.8	2340	0:55	192.5	38.5	195	0:33	25,033.6
Ent. Site 2	Manta Ray	2318	214	42.8	0106	1:48	378	75.6	380.8	1:04	25,109.2
Ent. Site 4	Lamor 12	2337	76	15.2	0244	3:07	235.6	47.1	238	0:40	25,156.3
Ent. Site 1	Desmi Minimax	2340	220	44	0034	0:54	194.4	38.9	195	0:33	25,195.2
Ent. Site 3	Manta Ray	2350	214	42.8	0034	0:44	154	30.8	156	0:26	25,226

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 3	Manta Ray	0044	214	42.8	0128	0:44	154	30.8	156	0:26	25,256.8
Ent. Site 1	Desmi Minimax	0045	220	44	0139	0:54	194.4	38.9	195	0:33	25,295.7
Ent. Site 2	Manta Ray	0116	214	42.8	0242	1:26	301	60.2	304.6	0:51	25,355.9
Ent. Site 3	Manta Ray	0140	214	42.8	0215	0:35	122.5	24.5	124.8	0:21	25,380.4
Ent. Site 5	Lamor 12	0143	76	15.2	0413	2:30	189	37.8	190.4	0:32	25,418.2
Ent. Site 1	Desmi Minimax	0150	220	44	0233	0:43	154.8	31	156	0:26	25,449.2
Ent. Site 3	Manta Ray	0225	214	42.8	0300	0:35	122.5	24.5	124.8	0:21	25,473.7
Ent. Site 1	Desmi Minimax	0245	220	44	0328	0:43	154.8	31	156	0:26	25,504.7
Ent. Site 4	Lamor 12	0254	76	15.2	0524	2:30	189	37.8	190.4	0:32	25,542.5
Ent. Site 2	Manta Ray	0300	214	42.8	0426	1:26	301	60.2	304.6	0:51	25,602.7
Ent. Site 3	Manta Ray	0310	214	42.8	0338	0:28	98	19.6	99.8	0:17	25,622.3
Ent. Site 3	Manta Ray	0340	214	42.8	0408	0:28	98	19.6	99.8	0:17	25,641.9
Ent. Site 5	Lamor 12	0640 Day 8	76	15.2	0910	2:30	189	37.8	190.4	0:32	25,679.7
Ent. Site 4	Lamor 12	0645	76	15.2	0915	2:30	189	37.8	190.4	0:32	25,717.5
Ent. Site 3	Manta Ray	0700	214	42.8	0722	0:22	77	15.4	79.8	0:13	25,732.9
Ent. Site 1	Desmi Minimax	0710	220	44	0744	0:34	122.4	24.5	124.8	0:21	25,757.4
Ent. Site 2	Manta Ray	0715	214	42.8	0824	1:09	241.5	48.3	243.7	0:41	25,805.7
Ent. Site 3	Manta Ray	0732	214	42.8	0754	0:22	77	15.4	79.8	0:13	25,821.1
Ent. Site 1	Desmi Minimax	0755	220	44	0829	0:34	122.4	24.5	124.8	0:21	25,845.6
Naniq	Transfer Ent. 3	0800	9.5 (400 gpm)		0850	0:50	476		5,702.4		
Ent. Site 2	Manta Ray	0835	214	42.8	0944	1:09	241.5	48.3	243.7	0:41	25,893.9

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site 1	Desmi Minimax	0840	220	44	0907	0:27	97.2	19.4	99.8	0:17	25,913.3
Naniq	Transfer Ent. 3	0900	9.5 (400 gpm)		0950	0:50	476		5,226.4		
Ent. Site 1	Desmi Minimax	0917	220	44	1044	0:27	97.2	19.4	99.8	0:17	25,932.7
Ent. Site 3	Manta Ray	0920	214	42.8	1135	2:15	472.5	94.5	476	1:20	26,027.2
Ent. Site 5	Lamor 12	0920	76	15.2	1120	2:00	151.2	30.2	152.3	0:26	26,057.4
Ent. Site 4	Lamor 12	0925	76	15.2	1125	2:00	151.2	30.2	152.3	0:26	26,087.6
Ent. Site 2	Manta Ray	1000	214	42.8	1055	0:55	192.5	38.5	195	0:33	26,126.1
Naniq	Transfer Ent. 1	1030	9.5 (400 gpm)		1120	0:50	476		4,750.4		
Ent. Site 2	Manta Ray	1110	214	42.8	1205	0:55	192.5	38.5	195	0:33	26,164.6
Ent. Site 5	Lamor 12	1130	76	15.2	1430	2:00	151.2	30.2	152.3	0:26	26,194.8
Naniq	Transfer Ent. 1	1130	9.5 (400 gpm)		1220	0:50	476		4,274.4		
Ent. Site 1	Desmi Minimax	1130	220	44	1442	2:12	475.2	95	476	1:20	26,289.8
Ent. Site 4	Lamor 12	1135	76	15.2	1335	2:00	151.2	30.2	152.3	0:26	26,320
Ent. Site 3	Manta Ray	1145	214	42.8	1400	2:15	472.5	94.5	476	1:20	26,414.5
Ent. Site 2	Manta Ray	1215	214	42.8	1532	1:17	97	19.4	97.4	0:17	26,433.9
Naniq	Manta Ray	1330	214	42.8	0930	20:00	4,280	856	3,798.4	Continuous	27,289.9
Ent. Site 4	Lamor 12	1345	76	15.2	1520	1:35	119.7	24	121.8	0:21	27,313.9
Ent. Site 3	Manta Ray	1410	214	42.8	1558	1:48	378	75.6	380.8	1:04	27,389.5
Ent. Site 5	Lamor 12	1445	76	15.2	1620	1:35	119.7	24	121.8	0:21	27,413.5
Ent. Site 1	Desmi Minimax	1452	220	44	1704	2:12	475.2	95	476	1:20	27,508.5
APD&T Barge	Skimpak 18000	1500	428	85.6	1100	20:00	8560	1,712	22,353	Continuous	29,220.5
Ent. Site 4	Lamor 12	1530	76	15.2	1705	1:35	119.7	24	121.8	0:21	29,244.5
Ent. Site 2	Manta Ray	1535	214	42.8	1652	1:17	97	19.4	97.4	0:17	29,263.9

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Cavek	Transfer Ent. 5	1700	9.5 (400 gpm)		1725	0:25	238		8,284		
Cavek	Transfer Ent. 5	1735	9.5 (400 gpm)		1800	0:25	238		8,046		
Ent. Site 5	Lamor 12	1840	76	15.2	2148	3:08	236.9	47.4	238	0:21	29,311.3
Cavek	Transfer Ent. 4	1845	9.5 (400 gpm)		1910	0:25	238		7,808		
Ent. Site 4	Lamor 12	1845	76	15.2	2153	3:08	236.9	47.4	238	0:21	29,358.7
Ent. Site 3	Manta Ray	1850	214	42.8	2048	1:48	378	75.6	380.8	1:04	29,434.3
Ent. Site 1	Desmi Minimax	1905	220	44	2050	1:45	378	75.6	380.8	1:04	29,509.9
Ent. Site 2	Manta Ray	1915	214	42.8	1959	0:44	154	30.8	156	0:27	29,540.7
Cavek	Transfer Ent. 4	1920	9.5 (400 gpm)		1945	0:25	238		7,570		
Ent. Site 2	Manta Ray	2009	214	42.8	2053	0:44	154	30.8	156	0:27	29,571.5
Ent. Site 3	Manta Ray	2058	214	42.8	2224	1:26	301	60.2	304.6	0:51	29,631.7
Ent. Site 1	Desmi Minimax	2100	220	44	2245	1:45	378	75.6	380.8	1:04	29,707.3
Cavek	Transfer Ent. 2	2105	9.5 (400 gpm)		2155	0:50	476		7,332		
Ent. Site 2	Manta Ray	2105	214	42.8	2140	0:35	122.5	24.5	124.8	0:21	29,731.8
Ent. Site 2	Manta Ray	2155	214	42.8	0010	2:15	472.5	94.5	476	1:20	29,826.3
Cavek	Transfer Ent. 2	2205	9.5 (400 gpm)		2255	0:50	476		7,332		
Ent. Site 5	Lamor 12	2030	76	15.2	2338	3:08	236.9	47.4	238	0:21	29,873.7
Ent. Site 4	Lamor 12	2210	76	15.2	0118	3:08	236.9	47.4	238	0:21	29,921.1
Ent. Site 3	Manta Ray	2240	214	42.8	0006	1:26	301	60.2	304.6	0:51	29,981.3
Ent. Site 1	Desmi Minimax	2255	220	44	0019	1:24	302.4	60.5	304.6	0:51	30,041.8

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Cavek	Lamor 30	2330	310	62	0600	6:30	2,015	403	6,856	Continuous	30,444.8
Ent. Site 5	Lamor 12	2350	76	15.2	0220	2:30	189	37.8	190.4	0:32	30,482.6
Ent. Site 3	Manta Ray	0020	214	42.8	0129	1:09	241.5	48.3	243.7	0:41	30,530.9
Ent. Site 2	Manta Ray	0030	214	42.8	0245	2:15	472.5	94.5	476	1:20	30,625.4
Ent. Site 1	Desmi Minimax	0035	220	44	0159	1:24	302.4	60.5	304.6	0:51	30,685.9
Ent. Site 4	Lamor 12	0130	76	15.2	0400	2:30	189	37.8	190.4	0:32	30,723.7
Ent. Site 3	Manta Ray	0140	214	42.8	0249	1:09	241.5	48.3	243.7	0:41	30,772
Ent. Site 1	Desmi Minimax	0215	220	44	0321	1:06	237.6	47.5	243.7	0:41	30,819.5
Ent. Site 5	Lamor 12	0230	76	15.2	0500	2:30	189	37.8	190.4	0:32	30,857.3
Ent. Site 2	Manta Ray	0300	214	42.8	0448	1:48	378	75.6	380.8	1:04	30,932.9
Ent. Site 3	Manta Ray	0305	214	42.8	0400	0:55	192.5	38.5	195	0:33	30,971.4

## Post RPS Recovery Operations

- During Day nine, the Unified Command objectives are carried out. Transfer of recovered liquids from shore sites to ATBs continues. Open water recovery operations are suspended due to a lack of free oil. Shoreline surveys for wildlife are initiated by ACC and IBRRC. SCAT teams are organized and small vessels procured for conducting shoreline cleanup. The SCAT team, VML, ACC, and the resource agencies begin identifying preliminary objectives for prioritizing shoreline cleanup. See [Section 1.6.11](#) for information on the SCAT process and potential shoreline cleanup techniques that can be used. See [Figure 1.6-8 Shoreline Cleanup Matrix](#) for additional recommended techniques. Planning Section begins development of Decon Plan.

## **DAY 10 - 12**

- The SCAT team continues survey operations of the shorelines and identifies the scope and magnitude of impacts. Shoreline cleanup is conducted on highly impacted shorelines through cold water flush and recovery with sorbents. ADEC recommends that a risk assessment be performed to determine the risk of allowing contaminated soil to remain in place along the shoreline. Additionally, the SCAT team identifies locations where cleanup is not recommended due to possible impacts from the cleanup operations. Shoreline flushing operations on highly contaminated locations are conducted over the period of one week.
- After day 12 Entrapment operations are no longer effective due to minimal oil left on the water. Begin initial on-site decon with sorbent pads.
- Work to decontaminate the entrapment system equipment is conducted as well as work to further protect and stabilize recovered oil storage devices.
- Utilize sorbents to recover areas of heavy sheen found on the water.
- A second barge is contracted for transfer and storage of recovered oil and water mixtures. Transfer operations begin after one week. With the assistance of the ACC landing craft, the solid wastes are collected and shuttled to the oily waste barge. This barge, when operations are completed, delivers the wastes to Anchorage. The oil wastes are initially sent through an oil/water separator. Water is further treated before disposal to the municipal sewage treatment plan. The recovered oil is trucked to a refinery where it is recycled. Oily solid wastes are transported to an incinerator located in Anchorage, AK.
- Remediation and restoration work is conducted throughout the summer in some areas where damage to the shoreline was caused by the spill or by cleanup operations. All final spill site cleanup operations are completed at the end of the summer.

**1.6.12.2 VML SCENARIO No. 2 – 3 x RPS (6,750 BBLs) EQUIVALENT TO 20,250 BARRELS DIESEL FUEL NO. 1 – NUSHAGAK RIVER, DILLINGHAM**

This spill scenario presents the hypothetical oil spill response for a large oil spill originating from a tank vessel while entering the Nushagak River in route to Dillingham. In this scenario, the spill occurs in the Nushagak River. As required by the ADEC, the spill volume listed in the scenario must be 3 times the actual RPS in order to account for evaporation and dispersion in the environment. This scenario results in an oil spill that is equivalent to the Response Planning Standard of 6,750 barrels x 3, or 20,250 barrels. It is designed to demonstrate the ability of VML to respond to an event of this size and magnitude.

RESPONSE TYPE:	TYPE / AMOUNT:
On water Response: VML / Alaska Chadux Vessel stability, salvage, & lightering: VML, Jensen Maritime, Resolve Salvage & Fire (Americas)	Cargo On Board: Diesel Fuel #1 – 45,000 bbls RPS: 6,750 bbls Spill Volume: 20,250 bbls

**INCIDENT CAUSE / SOURCE**

While proceeding into Dillingham loaded with No. 1 Diesel cargo, the vessel strikes an unknown submerged object mid channel just north east of Bradford Point. The vessel anchors at 59° 00 N 158° 31' W. Oil is seen bubbling to the surface on the starboard side. Oil is spilling from multiple tanks into the Nushagak River.

<b>TIME:</b>	0600	<b>WIND:</b>	10 S.W.
<b>SEASON:</b>	Summer	<b>TEMPERATURE:</b>	45 Degrees
<b>VISIBILITY:</b>	10 nm	<b>LOCATION:</b>	0.2 miles north east of Bradford Point in the Nushagak River.

**ASSUMPTIONS:**

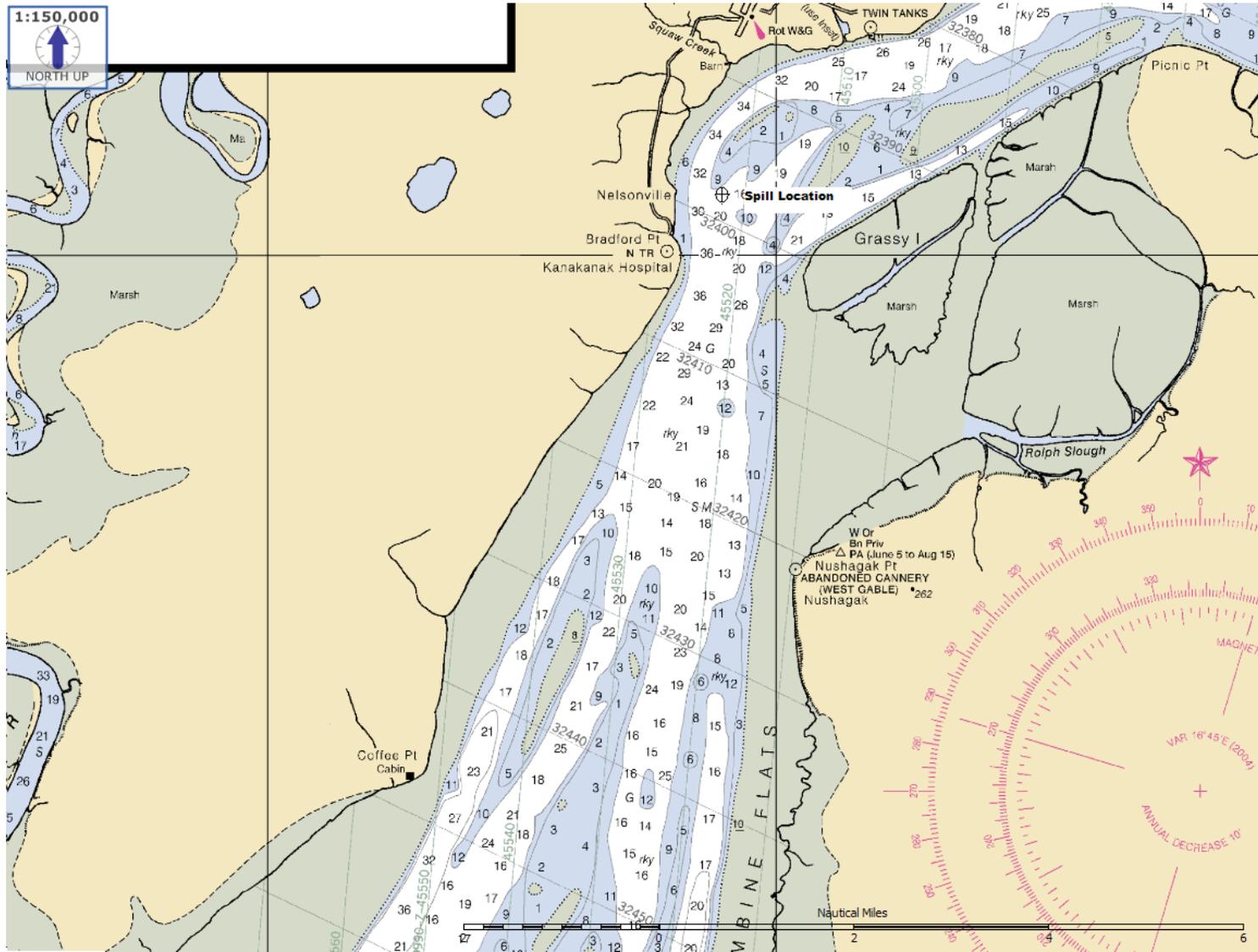
- Safe to commence response operations after initial evaluation.
- The cause of the spill has no impact on the size or duration of the spill event.
- Evaporation and emulsification are not considered.
- No injuries are associated with the incident.
- Quantity of oil to the Water: 20,250 barrels of No. 1 diesel oil is spilled from the cargo tanks directly into the Nushagak River during the first 10 hours of the incident.
- The tanker is scheduled to meet two barges in Dillingham for lightering and transport to local communities.

**RPS SCENARIO**

**SUSTAINED CONTAINMENT, CONTROL, RECOVERY, AND STORAGE OPERATIONS:**

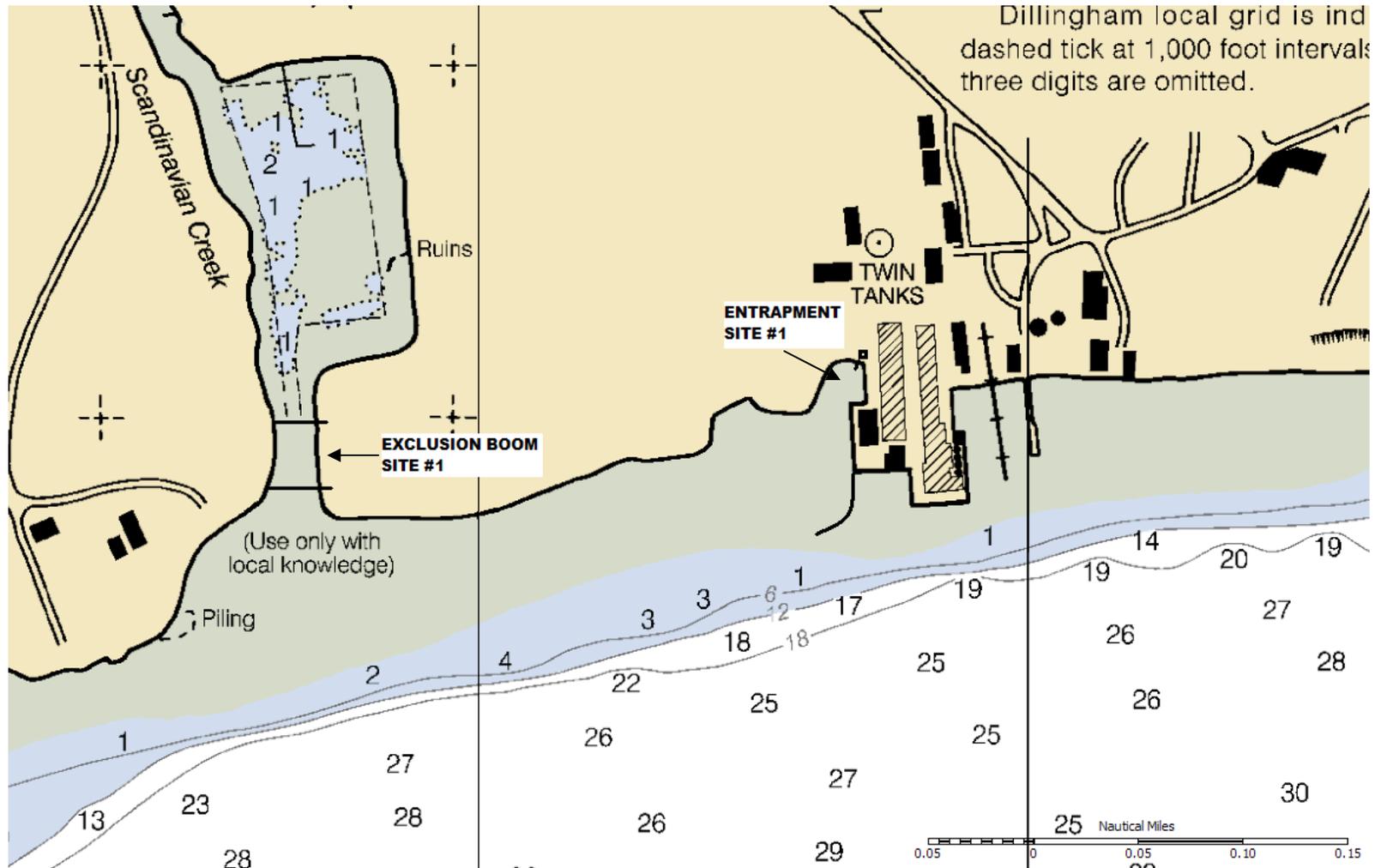
**Notations:** Only contracted oil spill equipment resources are used to demonstrate compliance with RPS containment and control. Storage in tanker slack or void space is not accounted for pursuant to ADEC directive with the exception of 10% of the 2 largest tanks as reserved space pursuant to the ADP&T agreement. Sufficient portable storage (tanks and/or bladders) are provided with each skimmer. The mass balance spreadsheet in Table 1.6-31 depicts the skimmers operating at the nameplate capacity with a derated efficiency rate until storage is filled. In total, 22,362.7 barrels of storage capability is deployed on spill site locations. Mobile open water skimming operations are conducted in this scenario. It should be noted that the Alaska Chadux Corporation has many more resources available and ready beyond what is presented in this scenario.

**Figure 1.6-12**  
**Nushagak River/Dillingham Spill Location**

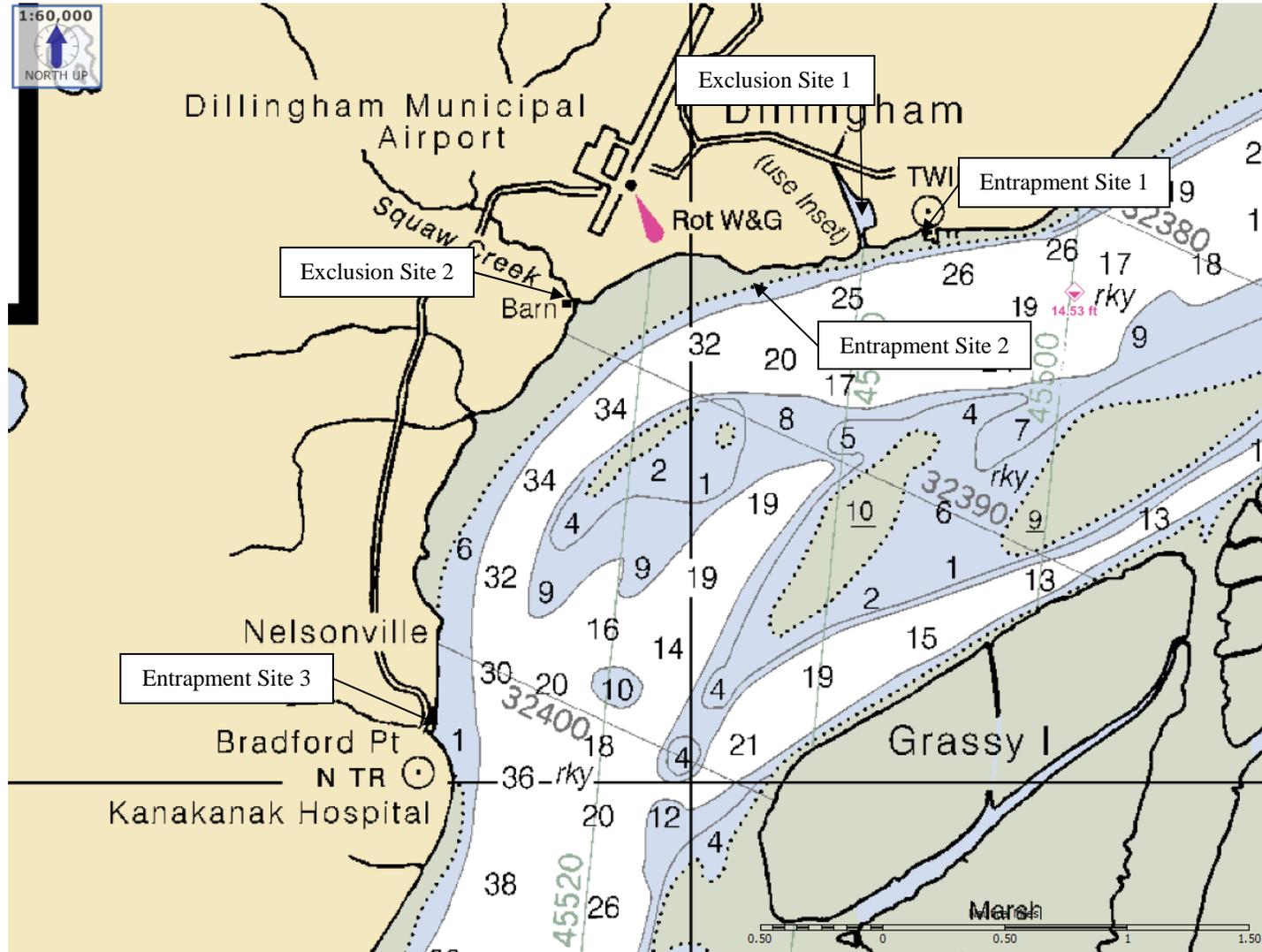




**Figure 1.6-14**  
**Dillingham Deployment Locations**



**Figure 1.6-14**  
**Nushagak River Deployment Locations**



**Table 1.6-24  
TACTICAL OBJECTIVES – DAY 1  
(SCENARIO 2)**

<b>Command and Command Staff</b>		
	<b>0600 - 1800 hours</b>	<b>1800 – 0600 hours</b>
Unified Command	<p>Activate VML IMT.            Notify PFA and BAF and place on standby.            Establish Unified Command at VML Anchorage office.            Brief personnel on situation.            Develop priorities and objectives            Ensure effective oil containment, control, and recovery</p>	<p>Develop priorities and objectives.            Ensure effective oil containment, control, and recovery.            Communicate changes of plans and priorities with IMT and field.            Approve Incident Action Plan for next operational period.</p>
Liaison	<p>Ensure affected communities are notified of spill.            Ensure additional agencies are notified of spill.            Identify stakeholder contacts.            Establish contact list and schedule.</p>	<p>Continue community and stakeholder updates.            Conduct agency updates.            Maintain contact list and schedule.</p>
Public Information	<p>Prepare public information release for approval of UC.            Establish internal/external information procedures.            Schedule media briefing.</p>	<p>Establish Joint Information Center for distribution of information.            Prepare UC for media briefings.            Conduct UC media briefings.</p>
Safety	<p>Conduct initial site survey.            Develop site safety plan.            Provide safety briefing to all personnel</p>	<p>Provide safety briefing to all personnel.            Continue to monitor safety of personnel.            Establish emergency medical service.            Submit site safety plan to UC for approval.</p>

<b>Planning Section</b>		
	<b>1000 - 1800 hours</b>	<b>1800 – 0600 hours</b>
Planning Section	<p>Identify and request required permits.            Prepare permit application for decanting and submit for approval.            Establish meeting schedule.            Start the development of Incident Action Plan.</p>	<p>Maintain meeting schedule.            Facilitate meetings.            Submit Incident Action Plan (IAP) for UC approval.</p>
Documentation Unit	<p>Establish records procedures.            Begin collection of documentation.            Begin historical recording of activities.</p>	<p>Maintain all spill documents and files.            Distribute IAP</p>
Resource Unit	<p>Identify resource needs and potential sources.            Complete Org Chart (ICS 207)            Develop personnel and equipment tracking procedures.            Maintain master list of resources checked in.</p>	<p>Maintain personnel and equipment tracking.            Maintain master list of resources.            Prepare requisitions.</p>

Situation Unit	Establish information protocols. Start Situation board. Post and manage displays.	Maintain and update Situation Board. Post and manage displays.
Environmental Unit	Identify and prioritize environmentally sensitive areas. Prepare permit applications in support of UC objectives. Request trajectory assistance from NOAA.	Additional area identified as areas of public concern. Snake River – Anadromous stream Maintain communications with permitting agencies. Continue review of permits and applications. Develop Wildlife Protection Plan.

<b>Operations Section</b>	
<b>0600 - 1800 hours</b>	<b>1800 – 0600 hours</b>
Spill site containment and control. Stabilize tanker. Secure ignition sources. Ready firefighting equipment on tanker. Sound tanks. Transfer cargo to undamaged tanks. Recovery operations at spill site. Initial discharge surveillance. Exclusion booming at small boat harbor. Exclusion booming at Squaw Creek. Entrapment site near Peter Pan dock. Initial damage assessment. Sound damaged tanks.	Spill site containment and control. Sound tanks. Recovery operations at spill site. Discharge surveillance. Sound damaged tanks. Continue over flights

<b>Logistics Section</b>	
<b>0600 - 1800 hours</b>	<b>1800 – 0600 hours</b>
Mobilize Chadux equipment and personnel in Anchorage. Establish Staging area in Dillingham. Establish ordering procedures. Establish Field Command Post in Dillingham. Establish Housing in Dillingham. Establish Meal services. Develop Communications Plan	Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.

<b>Finance Section</b>	
<b>0600 - 1800 hours</b>	<b>1800 – 0600 hours</b>
Begin tracking all expenditures. Prepare contracts/agreements for vendors. Contact insurance carrier.	Prepare contracts/agreements for vendors Develop procedures for damage claims Maintain time records

**Table 1.6-25  
TACTICAL OBJECTIVES – DAY 2  
(SCENARIO 2)**

<b>Command and Command Staff</b>		
	<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Unified Command	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.
Liaison	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.
Public Information	Prepare UC for media briefings. Conduct UC media briefings.	Prepare UC for media briefings. Conduct UC media briefings.
Safety	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Establish emergency medical service. Submit site safety plan to UC for approval.	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Establish emergency medical service. Submit site safety plan to UC for approval.

<b>Planning Section</b>		
	<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Planning Section	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.
Documentation Unit	Maintain all spill documents and files. Distribute IAP	Maintain all spill documents and files. Distribute IAP
Resource Unit	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.
Situation Unit	Maintain and update Situation Board. Post and manage displays.	Maintain and update Situation Board. Post and manage displays.
Environmental Unit	Work with resource agencies to identify potential wildlife at risk. Evaluate field observation reports and recommend protection methods if necessary.	Evaluate field observation reports and recommend protection methods if necessary. Develop Waste Management Plan for UC approval.

<b>Operations Section</b>	
<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Spill site containment and control. Recovery operations at spill site. Discharge surveillance. Sound damaged tanks. Establish Entrapment site near Bristol Alliance Fuels. Establish Entrapment site near Bradford Point. Establish Exclusion site at Snake River.	Spill site containment and control. Recovery operations at spill site. Discharge surveillance. Sound damaged tanks.

<b>Logistics Section</b>	
<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.	Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.

<b>Finance Section</b>	
<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Prepare contracts/agreements for vendors Develop procedures for damage claims Maintain time records	Prepare contracts/agreements for vendors Process damage claims Maintain time records

**Table 1.6-26  
TACTICAL OBJECTIVES – DAY 3  
(SCENARIO 2)**

<b>Command and Command Staff</b>		
	<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Unified Command	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.	Develop priorities and objectives. Ensure effective oil containment, control, and recovery. Communicate changes of plans and priorities with IMT and field. Approve Incident Action Plan for next operational period.
Liaison	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.	Continue community and stakeholder updates. Conduct agency updates. Maintain contact list and schedule.
Public Information	Prepare UC for media briefings. Conduct UC media briefings.	Prepare UC for media briefings. Conduct UC media briefings.
Safety	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Establish emergency medical service. Submit site safety plan to UC for approval.	Provide safety briefing to all personnel. Continue to monitor safety of personnel. Establish emergency medical service. Submit site safety plan to UC for approval.

<b>Planning Section</b>		
	<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Planning Section	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.	Maintain meeting schedule. Facilitate meetings. Submit Incident Action Plan (IAP) for UC approval.
Documentation Unit	Maintain all spill documents and files. Distribute IAP	Maintain all spill documents and files. Distribute IAP
Resource Unit	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.	Maintain personnel and equipment tracking. Maintain master list of resources. Prepare requisitions.
Situation Unit	Maintain and update Situation Board. Post and manage displays.	Maintain and update Situation Board. Post and manage displays.
Environmental Unit	Work with resource agencies to identify potential wildlife at risk. Evaluate field observation reports and recommend protection methods if necessary.	Establish procedures for evaluating shoreline impacts. Establish SCAT teams to perform shoreline surveys.

<b>Operations Section</b>	
<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Spill site containment and control. Recovery operations at spill site. Discharge surveillance. Sound damaged tanks.	Spill site containment and control. Recovery operations at spill site. Discharge surveillance. Sound damaged tanks. Transfer recovered liquids from entrapment sites. Offload ATB's.

<b>Logistics Section</b>	
<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.	Receive personnel and equipment. Provide job assignments and briefing. Maintain meals and lodging. Maintain staging areas and dispatch equipment and personnel as necessary. Maintain and expand transportation resources to meet needs.

<b>Finance Section</b>	
<b>0600 – 1800 hours</b>	<b>1800 – 0600 hours</b>
Prepare contracts/agreements for vendors Develop procedures for damage claims Maintain time records	Prepare contracts/agreements for vendors Process damage claims Maintain time records

**TABLE 1.6-27  
NUSHAGAK RIVER/DILLINGHAM SCENARIO STRATEGY – DAY 1**

ADEC Requirement 18 AAC 75.425(e)(1)(F)	Timeline – Actions Taken Day 1 0600 -1800 hours	VML CPLAN Section Reference	Timeline – Actions Taken Day 1 1800 – 0600 hours	VML CPLAN Section Reference
Safety	<ul style="list-style-type: none"> <li>• Master sounds general alarm.</li> <li>• Master accounts for the safety of all hands.</li> <li>• ATB Cavek/AVEC 208 assigned as On-scene Incident Commander.</li> <li>• Conduct Initial Safety Assessment – Site was found to be safe.</li> <li>• Conduct initial safety briefing.</li> <li>• Mate from the ATB Cavek/AVEC 208 prepares Site Safety Plan and submits to UC for approval.</li> <li>• M/V Seven Seas departs Dillingham with 3 ACC responders and Safety Officer for safety and support operations.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD’s.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1
Notification	<ul style="list-style-type: none"> <li>• Tanker Master notifies escort tug and VML ATB’s.</li> <li>• VML QI/Representative notified by tanker’s Master</li> <li>• NRC &amp; ADEC Notified by VML QI/Representative</li> <li>• Chadux Notified by the VML QI/Representative, request for equipment, personnel, and management resources.</li> <li>• VML QI/Representative notifies Salvage and Marine Firefighting Provider of incident and that additional assistance will be required.</li> <li>• VML QI/Representative notifies Pacific Fishing Assets Aleknagik Operations and request assistance.</li> <li>• VML QI/Representative notifies Bristol Alliance Fuels and request assistance.</li> <li>• Notification of the City of Dillingham</li> </ul>	1.2.1 1.2.3 1.2.4.4 Fig.1.2-1 Fig. 1.2-2 Fig. 1.2-3 Fig. 1.2-4		
Stopping Discharge at Source and Lightering	<ul style="list-style-type: none"> <li>• Secure all vessel tank valves</li> <li>• Evaluate plugging vents and all other control options</li> <li>• Chief Mate and Deckhand sound tanks – All 5 stbd side tanks are damaged. Oil continues to leak from damaged tanks.</li> <li>• Chief Mate and Deckhand transfer as much oil as possible from damaged tanks.</li> <li>• Engineer and Deckhand perform damage assessment.</li> <li>• Request tanker stability report from salvage services provider.</li> </ul>	1.6.1	<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Discharge of oil stops at 1800. Sounding of tanks indicates that 20,250 bbls was lost.</li> <li>• Initial stability report provided by salvage service provider. Will recalculate now that flow of oil has stopped.</li> </ul>	1.6.1

Preventing or Controlling Fire Hazards	<ul style="list-style-type: none"> <li>Secure potential ignition sources</li> <li>Prepare firefighting equipment</li> <li>Monitor air levels for flammable vapors</li> </ul>	1.6.2	<ul style="list-style-type: none"> <li>Monitor air levels for flammable vapors</li> </ul>	1.6.2
Surveillance and Tracking of Oil; Forecasting Shoreline Contact Points	<ul style="list-style-type: none"> <li>Tanker crew conducts visual surveillance from the bridge.</li> <li>Additional visual surveillance provided by Escort Tug and VML ATB's.</li> <li>Conduct over flight surveillance <ul style="list-style-type: none"> <li>Large amount of oil near the tanker, which is being partially contained.</li> <li>Uncontained oil is spreading to the northwest slowly.</li> </ul> </li> </ul>	1.6.3.1 Fig. 1.6-13	<ul style="list-style-type: none"> <li>Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-13
Protection of Environmentally Sensitive Areas and Areas of Public Concern	<ul style="list-style-type: none"> <li>Establish contact with ADF&amp;G to identify and prioritize possible ESA's affected.</li> <li>Review MESA map 19 – Nushagak Bay.</li> <li>Exclusion boom Squaw Creek – Anadromous stream.</li> <li>Exclusion boom Dillingham small boat harbor.</li> </ul>	3.10.3	<ul style="list-style-type: none"> <li>Evaluate Snake River for potential impacts and develop protection strategy.</li> </ul>	3.10.3
Spill Containment and Control Actions & Spill Recovery Procedures	<ul style="list-style-type: none"> <li>Deploy 1,100' of containment boom from VML ATB's around tanker.</li> <li>VML ATB Cavek/AVEC 208 deploys onboard skimming system. Skimming operation begins 0830.</li> <li>VML ATB Naniq/AVEC 183 deploy onboard skimming system. Recovery operations begin 0845.</li> <li>Chadux mobilizes C130 aircraft for equipment transport.</li> <li>Chadux mobilizes SAAB aircraft for personnel transport.</li> <li>M/V Seven Seas &amp; M/V Morning Thunder depart Aleknagik to Dillingham (ETA 3 hrs)</li> <li>Establish staging area in Dillingham.</li> <li>Establish field command post in Dillingham.</li> <li>Chadux response personnel depart Anchorage on chartered aircraft at 1105. 24 responders, 3 Chadux managers, 1 ADEC and 1 USCG.</li> <li>Overflight conducted at 1130 with BAF observer onboard.</li> <li>Cargo Aircraft departs Anchorage at 1210.</li> <li>Passenger aircraft arrives in Dillingham at 1215. Personnel are provided an initial status and safety briefing, and assignments issued.</li> <li>Cargo aircraft arrives in Dillingham at 1315.</li> <li>Overflight returns to Dillingham 1320.</li> <li>Passenger aircraft departs Dillingham 1330.</li> <li>VML ATB Naniq/AVEC 183 stops recovery operations at 1430 and</li> </ul>	1.5.2 1.6.6 1.6.4.1 1.6.4.2 1.6.4.4	<ul style="list-style-type: none"> <li>Shift change at 1800. M/V Seven Seas will return to Dillingham, perform crew change and transport crew to M/V Morning Thunder, ATB's will utilize skiffs to perform crew change, and personnel at Entrapment Site 1 have road access.</li> <li>Recovery operations continue – See table 1.6-31 for individual recovery site details.</li> <li>Passenger aircraft departs Dillingham at 1830.</li> <li>M/V Seven Seas arrives at M/V Morning Thunder 1820 to transfer crew, and tow full bladder to ATB Cavek/AVEC 208 to be offloaded.</li> <li>M/V Seven Seas arrives at ATB Cavek with full bladder to be offloaded at 1900. Bladder tied off to barge, and M/V Seven Seas returns to Dillingham to drop off crew.</li> <li>Cargo aircraft departs Anchorage at 1945.</li> <li>M/V Seven Seas arrives in Dillingham and drops off off going crew at 2030. M/V Seven Seas returns to support M/V Morning Thunder.</li> <li>Cargo aircraft (cargo flt #2) arrives in Dillingham at 2055. Cargo is offloaded and transported to staging area.</li> <li>M/V Seven seas arrives at M/V Morning Thunder at 2135 and attaches tow line to full bladder and departs for ATB Cavek.</li> <li>M/V Seven Seas arrives at ATB Cavek at 2205 and ties full</li> </ul>	1.5.2 1.6.6 1.6.4.1 1.6.4.4 1.6.4.5 Fig. 1.6-5 Fig. 1.6-6

	<p>returns to Dillingham to pick up additional equipment and personnel for transport.</p> <ul style="list-style-type: none"> <li>○ 1,000' containment boom</li> <li>○ (2) 40# anchor packages</li> <li>○ (10) sorbent boom</li> <li>○ (4) Fastank</li> </ul> <ul style="list-style-type: none"> <li>● Launch 28' LC at small boat harbor.</li> <li>● M/V Seven Seas &amp; M/V Morning Thunder arrive in Dillingham at 1410.</li> <li>● 28' LC to deploy (2) 400' containment booms in a double boom exclusion configuration at small boat harbor. Exclusion Site 1.</li> <li>● Passenger aircraft arrives in Anchorage at 1430.</li> <li>● Passenger aircraft departs Anchorage at 1600 with 26 ACC responders.</li> <li>● Cargo Aircraft departs Dillingham at 1615.</li> <li>● 28' LC completes exclusion booming and moves to location near Peter Pan dock to establish Entrapment Site 1.</li> <li>● M/V Morning Thunder departs Dillingham for leading edge of spill and deploys skiff, 300' of containment boom in a "J" configuration, and Lamor 12 brush skimmer, utilizing towable storage.</li> <li>● M/V Seven Seas to deploy exclusion boom at Squaw Creek (Excl. Site 2), using 100' of shore seal boom and 200' of containment boom at 1630.</li> <li>● ATB Naniq/AVEC 183 return to spill site and deploy skimming system – begin recovery operation @ 1640</li> <li>● M/V Morning Thunder begin on water recovery operations at leading edge of spill @ 1700</li> <li>● Passenger aircraft arrives in Dillingham. Personnel are provide initial status and safety briefing and receive their assignments.</li> <li>● Cargo aircraft arrives in Anchorage at 1720.</li> <li>● Begin recovery operation at Entrapment Site 1 @ 1730.</li> </ul>		<p>bladder up to barge and takes empty bladder back to M/V Morning Thunder.</p> <ul style="list-style-type: none"> <li>● M/V Seven Seas arrives at M/V Morning Thunder at 2225.</li> <li>● M/V Seven Seas tows full bladder from M/V Morning Thunder to ATB Cavek to be emptied and bring empty bladder back 2310.</li> <li>● Launch 22' workboat at small boat harbor at 2345.</li> <li>● Cargo aircraft departs Dillingham, returning to Anchorage at 0015.</li> <li>● M/V Seven Seas takes full bladder in tow from M/V Morning Thunder to ATB Cavek to be emptied and bring emptied bladder back to the M/V Morning Thunder 0150.</li> <li>● to ATB Cavek to be offloaded and return empty bladder at 0340.</li> <li>● Entrapment Site 1 stops recovery operations at 0424 to perform maintenance on equipment.</li> <li>● Passenger aircraft departs Anchorage at 0400 with 24 ACC responders.</li> <li>● Cargo aircraft (cargo flt 3#) departs Anchorage at 0430.</li> <li>● M/V Seven Seas returns empty bladder to M/V Morning Thunder at 0510. M/V Seven Seas returns to Dillingham for shift change.</li> <li>● Passenger aircraft arrives in Dillingham at 0515. Personnel are provided initial situation and safety briefings and assignments. 12 – responders assigned to days and 12 – responders assigned to night shift.</li> <li>● Cargo aircraft arrives in Dillingham at 0530. Cargo offloaded and transported to staging area.</li> </ul>	
<p>Transfer and Storage or Recovered Oil/Water; Volume Estimating Procedure</p>	<ul style="list-style-type: none"> <li>● Request nearest barge of opportunity from APD&amp;T operators. (ETA 72 hrs)</li> <li>● Sound tanks</li> <li>● Transfer cargo to undamaged tanks/voids</li> </ul>	<p>Table 1.2-3 1.6.7 1.6.8 1.6.9</p>	<ul style="list-style-type: none"> <li>● ATB's to sound tanks each shift.</li> </ul>	<p>Table 1.2-3 1.6.7 1.6.8 1.6.9</p>

Plans, Procedures and Locations for Temporary Storage and Disposal	<ul style="list-style-type: none"> <li>• Permit for decanting recovered water back into containment area is prepared and submitted to ADEC</li> <li>• Identify required permits and begin permit applications.</li> </ul>	1.6.8	<ul style="list-style-type: none"> <li>• ATB's, Towable bladders and land bladders are being utilized for temporary storage.</li> </ul>	1.6.8
Wildlife Protection Plan	<ul style="list-style-type: none"> <li>• Establish contact with resource agencies</li> <li>• Identify environmentally sensitive areas</li> </ul>	1.6.10	<ul style="list-style-type: none"> <li>• Monitor wildlife in spill area</li> </ul>	1.6.10
Shoreline Cleanup				
Non-mechanical Response	N/A	1.7	N/A	1.7

**TABLE 1.6-28  
NUSHAGAK RIVER/DILLINGHAM SCENARIO STRATEGY – DAY 2**

<b>ADEC Requirement 18 AAC 75.425(e)(1)(F)</b>	<b>Timeline – Actions Taken Day 2 0600 -1800 hours</b>	<b>VML CPLAN Section Reference</b>	<b>Timeline – Actions Taken Day 2 1800 – 0600 hours</b>	<b>VML CPLAN Section Reference</b>
Safety	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3.3 1.3.4 Fig. 1.3-1	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3.3 1.3.4 Fig. 1.3-1
Notification				
Stopping Discharge at Source and Lightering	<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Monitor water for further signs of leak.</li> </ul>		<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Monitor water for further signs of leak.</li> </ul>	1.6.1
Preventing or Controlling Fire Hazards	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2
Surveillance and Tracking of Oil; Forecasting Shoreline Contact Points	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-13	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-13
Protection of Environmentally Sensitive Areas and Areas of Public Concern	<ul style="list-style-type: none"> <li>• Monitor and review protection strategies based on surveillance reports.</li> </ul>	3.10.3	<ul style="list-style-type: none"> <li>• Monitor and review protection strategies based on surveillance reports.</li> </ul>	3.10.3
Spill Containment and Control Actions & Spill Recovery Procedures	<ul style="list-style-type: none"> <li>• Shift change at 0600. M/V Seven Seas will return to Dillingham, perform crew change and transport crew to M/V Morning Thunder, ATB's will utilize skiffs to perform crew change, and personnel at Entrapment Site 1 have road access.</li> <li>• Recovery operations continue – See table 1.6-31 for individual recovery site details.</li> <li>• 20,000 gal land bladder delivered to Entrapment Site 1 at 0600.</li> <li>• Escort tug to support M/V Morning Thunder at 0615.</li> <li>• Escort tug tows full bladder to ATB Cavek to be emptied and return empty bladder at 0700.</li> </ul>	1.5.2 1.6.6 1.6.4.1 1.6.4.4 1.6.4.5 Fig. 1.6-5 Fig. 1.6-6	<ul style="list-style-type: none"> <li>• Shift change at 1800. M/V Seven Seas will return to Dillingham, perform crew change and transport crew to M/V Morning Thunder, ATB's will utilize skiffs to perform crew change, and personnel at Entrapment Site 1 have road access.</li> <li>• Recovery operations continue – See table 1.6-31 for individual recovery site details.</li> <li>• Escort tug tows full bladder to ATB Cavek to be emptied and return at 2255.</li> <li>• Escort tug tows full bladder from M/V Morning Thunder to ATB Cavek to be emptied and return empty at 0234.</li> </ul>	1.5.2 1.6.6 1.6.4.1 1.6.4.4 1.6.4.5 Fig. 1.6-5 Fig. 1.6-6

	<ul style="list-style-type: none"> <li>• Launch 18' workboat at boat harbor at 0800.</li> <li>• Escort tug tows full bladder from M/V Morning Thunder to ATB Cavek to be emptied and return empty bladder at 0900.</li> <li>• Establish Entrapment Site 2 near Bristol Alliance Fuels at 0900. Site has road access. Utilize 500' of containment boom, (2) 20,000 gal land bladder, centrifugal pump, Lamor 12 skimmer and hose kit. 22' workboat to assist with boom deployment.</li> <li>• Establish Exclusion Site 3 at mouth of Snake River. M/V Seven Seas to deploy 100' of shore seal boom, 300' of containment boom, and anchors at 0915 (departure).</li> <li>• Establish Entrapment Site 3 near Bradford Point, site has road access. Utilize 500' of containment boom, (2) 20,000 gal land bladder, centrifugal pump, Manta Ray skimmer and hose kit. 18' workboat to assist with boom deployment at 0930.</li> <li>• Escort tug tows full bladder from M/V Morning Thunder to ATB Cavek to be emptied and return empty bladder at 1110.</li> <li>• Entrapment Site 2 setup is completed at 1130. Recovery operations begin at 1140.</li> <li>• Exclusion Site 2 set up at 1230. M/V Seven Seas returns to Dillingham.</li> <li>• Entrapment Site 3 setup completed at 1245.</li> <li>• Entrapment Site 3 begins recovery operations at 1300.</li> <li>• Escort tug tows full bladder from M/V Morning Thunder to ATB Cavek to be emptied and return empty bladder at 1335.</li> <li>• M/V Seven Seas arrives in Dillingham at 1400.</li> <li>• Escort tug tows full bladder from M/V Morning Thunder to ATB Cavek to be emptied and return empty bladder at 1515.</li> <li>• Escort tug tows full bladder from M/V Morning Thunder to ATB Cavek to be emptied and return empty bladder at 1655.</li> </ul>		<ul style="list-style-type: none"> <li>• Escort tug tows full bladder from M/V Morning Thunder to ATB Cavek to be emptied and return empty at 0404.</li> <li>• Escort tug tows full bladder from M/V Morning Thunder to ATB Cavek to be emptied and return empty at 0555.</li> </ul>	
Transfer and Storage or Recovered Oil/Water; Volume Estimating Procedure	<ul style="list-style-type: none"> <li>• Continue to sound tanks</li> </ul>	Table 1.2-3 1.6.7 1.6.8 1.6.9	<ul style="list-style-type: none"> <li>• Continue to sound tanks</li> </ul>	Table 1.2-3 1.6.7 1.6.8 1.6.9
Plans, Procedures and Locations for Temporary Storage and Disposal	<ul style="list-style-type: none"> <li>• ATB's, Towable bladders and land bladders are being utilized for temporary storage.</li> </ul>	1.6.8	<ul style="list-style-type: none"> <li>• ATB's, Towable bladders and land bladders are being utilized for temporary storage.</li> </ul>	1.6.8
Wildlife Protection	<ul style="list-style-type: none"> <li>• Establish exclusion boom site at Snake River – Anadromous Stream.</li> </ul>	1.6.10	<ul style="list-style-type: none"> <li>• Monitor wildlife in spill area</li> </ul>	1.6.10

Plan	• Monitor wildlife in spill area			
Shoreline Cleanup			• Begin the development of a shoreline cleanup plan.	1.6.11
Non-mechanical Response	N/A	1.7	N/A	1.7

**TABLE 1.6-29  
NUSHAGAK RIVER/DILLINGHAM SCENARIO STRATEGY – DAY 3**

<b>ADEC Requirement 18 AAC 75.425(e)(1)(F)</b>	<b>Timeline – Actions Taken Day 3 0600 -1800 hours</b>	<b>VML CPLAN Section Reference</b>	<b>Timeline – Actions Taken Day 3 1800 – 0600 hours</b>	<b>VML CPLAN Section Reference</b>
Safety	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessels have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1
Notification				
Stopping Discharge at Source and Lightering	<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Monitor water for further signs of leak.</li> </ul>		<ul style="list-style-type: none"> <li>• Continue to sound tank regularly.</li> <li>• Monitor water for further signs of leak.</li> </ul>	1.6.1
Preventing or Controlling Fire Hazards	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2
Surveillance and Tracking of Oil; Forecasting Shoreline Contact Points	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-13	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, escort tug, ATB's and small vessels transiting area.</li> <li>• Over flights continue</li> </ul>	1.6.3.1 Fig. 1.6-13
Protection of Environmentally Sensitive Areas and Areas of Public Concern	<ul style="list-style-type: none"> <li>• Monitor and review protection strategies based on surveillance reports.</li> </ul>	3.10.3	<ul style="list-style-type: none"> <li>• Monitor and review protection strategies based on surveillance reports.</li> </ul>	3.10.3
Spill Containment and Control Actions & Spill Recovery Procedures	<ul style="list-style-type: none"> <li>• Recovery operations continue – See table 1.6-31 for individual recovery site details.</li> <li>• Escort tug tows full bladder from M/V Morning Thunder to ATB Cavek to be emptied and return empty at 0755.</li> </ul>	1.5.2 1.6.6 1.6.4.1 1.6.4.4 1.6.4.5 Fig. 1.6-5 Fig. 1.6-6	<ul style="list-style-type: none"> <li>• Recovery operations continue – See table 1.6-31 for individual recovery site details.</li> <li>• ATB Naniq/AVEC 183 stops recovery operations, recovers skimmer and departs spill site to transfer recovered liquids from shore based sites at 2300.</li> </ul>	1.5.2 1.6.6 1.6.4.1 1.6.4.4 1.6.4.5 Fig. 1.6-5 Fig. 1.6-6

Transfer and Storage or Recovered Oil/Water; Volume Estimating Procedure	<ul style="list-style-type: none"> <li>Continue to sound tanks</li> </ul>	Table 1.2-3 1.6.7 1.6.8 1.6.9	<ul style="list-style-type: none"> <li>Continue to sound tanks</li> <li>ATB Naniq/AVEC 183 transfer recovered liquids from entrapment sites to barge for transport to BAF facility for temporary storage.</li> <li>ATB Naniq/AVEC 183 offloads recovered liquids at Bristol Alliance Fuels facility tank.</li> <li>Receiving tank at BAF to be allowed to settle and then sounded with tape and water cut paste to determine recovered product and water amounts.</li> </ul>	Table 1.2-3 1.6.7 1.6.8 1.6.9
Plans, Procedures and Locations for Temporary Storage and Disposal	<ul style="list-style-type: none"> <li>ATB's, Towable bladders and land bladders are being utilized for temporary storage.</li> <li>Develop waste management plan.</li> </ul>	1.6.8 3.3.2	<ul style="list-style-type: none"> <li>ATB's, Towable bladders, land bladders and shore based facility tank are being utilized for temporary storage.</li> </ul>	1.6.8 3.3.2
Wildlife Protection Plan	<ul style="list-style-type: none"> <li>Continue to monitor for impacted wildlife.</li> </ul>	1.6.10	<ul style="list-style-type: none"> <li>Continue to monitor for impacted wildlife.</li> </ul>	1.6.10
Shoreline Cleanup			<ul style="list-style-type: none"> <li>Establish procedures for evaluating shoreline impact.</li> <li>Establish SCAT teams to conduct shoreline surveys.</li> </ul>	1.6.11
Non-mechanical Response	N/A	1.7	N/A	1.7

## Post RPS Recovery Operations

- During Day three, the Unified Command objectives are carried out. A Lightering and Salvage plan is developed working with the Marine Architect and Resolve Salvage & Fire (Americas). A Waste Collection and Management Plan is developed and submitted to the Unified Command for review and approval. Shoreline surveys for wildlife are initiated by ACC and IBRRC. SCAT teams are organized and small vessels procured for conducting shoreline cleanup. The SCAT team, VML, ACC, and the resource agencies begin identifying preliminary objectives for prioritizing shoreline cleanup. See [Section 1.6.11](#) for information on the SCAT process and potential shoreline cleanup techniques that can be used. See [Figure 1.6-8](#) Shoreline Cleanup Matrix for additional recommended techniques. Planning Section begins development of Decon Plan.

### **DAY 3 – 5**

- ATB Naniq/AVEC 183 to empty full land bladders at entrapment sites and proceed to Bristol Alliance Fuels to discharge recovered liquids into a facility tank.
- ATB Cavek/AVEC 205 to offload recovered liquids at Bristol Alliance Fuels to a facility tank.
- APD&T barge arrives on-scene to lighter tanker.
- The SCAT team continues survey operations of the shorelines and identifies the scope and magnitude of impacts. Shoreline cleanup is conducted on highly impacted shorelines through cold water flush and recovery with sorbents. ADEC recommends that a risk assessment be performed to determine the risk of allowing contaminated soil to remain along the river. Additionally, the SCAT team identifies locations where cleanup is not recommended due to possible impacts from the cleanup operations. Shoreline flushing operations on highly contaminated locations are conducted over the period of one week.
- After day 5 Entrapment operations are no longer effective due to minimal oil left on the river. Begin initial on-site decon with sorbent pads.
- Work to decontaminate the entrapment system equipment is conducted as well as work to further protect and stabilize recovered oil storage devices.
- Utilize sorbents to recover areas of heavy sheen found on the water.
- A second barge is contracted for transfer and storage of recovered oil and water mixtures. Transfer operations begin after one week. With the assistance of the ACC landing craft, the solid wastes are collected and shuttled to the oily waste barge. This barge, when operations are completed, delivers the wastes to Anchorage. The oil wastes are initially sent through an oil/water separator. Water is further treated before disposal to the municipal sewage treatment plan. The recovered oil is trucked to a refinery where it is recycled. Oily solid wastes are transported to an incinerator located in Anchorage, AK.
- Remediation and restoration work is conducted throughout the summer in some areas where damage to the shoreline was caused by the spill or by cleanup operations. All final spill site cleanup operations are completed at the end of the summer.

**TABLE 1.6 –30  
EQUIPMENT AND PERSONNEL ASSIGNMENTS  
(SCENARIO 2)**

**ACC Dillingham Hub**

Containment Boom 20"	2,000'	800' – Exclusion Site 1 300' – On water recovery 500' – Entrapment Site 1 200' – Exclusion Site 2 200' – Exclusion Site 3
Containment Boom 20"	2,000'	500' - Entrapment Site 2 500' – Entrapment Site 3 100' – Exclusion Site 3
PPE Kit (6 man)	1	Issued to M/V Seven Seas & M/V Morning Thunder
Beach Cleaning Kit	1	Staging
Hazing Kit	1	Staging
Decon Kit, personnel	1	Staging
Anchor Kit 40#	2	1 – Entrapment Site 1 1- On water recovery
Anchor Kit 22#	1	1 – Exclusion Site 1 & 2

**1<sup>st</sup> Cargo Flight**

28' Landing Craft	1	On water
Desmi Minimax	1	1 – Entrapment Site 1
Lamor 12 Brush Skimmer	1	1 – On water recovery
Centrifugal Pump	2	1 – Entrapment Site 1 1 – On water recovery
Hose Kit	2	1 – Entrapment Site 1 1 – On water recovery
Anchor Packages 40#	2	1 – Entrapment Site 2 1 – Entrapment Site 3
Sorbent Boom	20	Staging
Exposure Suits	20	Issued to personnel
PPE Kit	2	Staging
Shore Seal Boom	200'	100' – Exclusion Site 2 100' – Exclusion Site 3
Fastank 2400 gal.	4	Staging
Land Bladder 10,000 gal.	2	2 – Entrapment Site 1
Towable 5,000 gal Bladder	2	2 – M/V Morning Thunder
Towable 6,635 gal Bladder	1	1 – M/V Morning Thunder

## 2<sup>nd</sup> Cargo Flight

Containment Boom	1,000	Staging
22' Workboat	1	On water
Anchor Packages	3	1 – Exclusion Site 3
Manta Ray Skimmer	2	1 – Entrapment Site 3
Centrifugal Pump	2	1 – Entrapment Site 2 1 – Entrapment Site 3
Hose Kit	2	1 – Entrapment Site 2 1 – Entrapment Site 3
20,000 gal. Land Bladder	3	1 – Entrapment Site 1 1 - Entrapment Site 2 1 – Entrapment Site 3
Exposure Suits	10	Issued to personnel
Fastank 2400 gal.	4	Staging
Sorbent Pads	20	Staging
Shore Seal Boom	150'	Staging

## 3<sup>rd</sup> Cargo Flight

18' Workboat	1	On water
Containment Boom	2,000	Staging
Anchor Packages	4	Staging
20,000 gal. Land Bladder	3	1 – Entrapment Site 1 1- Entrapment Site 2 1 – Entrapment Site 3
Lamor 30 Skimmer	1	Staging
Lamor 12 Skimmer	1	Staging
Elastec TD-118 Skimmer	1	1 – Entrapment Site 2
Centrifugal Pump	2	1 – Entrapment Site 2 1 – Entrapment Site 3
Hose Kit	2	1 – Entrapment Site 2 1 – Entrapment Site 3
Fueling Kit	1	Field
Land bladder 10,000 gal	2	Staging
Towable bladder 6,600 gal	1	On water recovery

## VML Equipment

Containment Boom	1,100'	1,100' - Tanker
Manta Ray Skimmer	2	1 – Cavek 1 - Naniq
Centrifugal Pump	2	1 – Cavek 1 - Naniq
Anchor Kit	2	2 – Booming at tanker
ATB Cavek/AVEC 208	1	On water
ATB Naniq/AVEC 183	1	On water
M/V Seven Seas (PFA)	1	On water
M/V Morning Thunder w/ skiff (PFA)	1	On water
Escort tug	1	On water

## ACC Personnel

Manager	3	Safety Officer – 1      Ops – 2
Responders (First Group)	24	ATB Cavek – 4    ATB Naniq – 4 28' Landing Craft – 3    M/V Seven Seas – 3 M/V Morning Thunder - 4    Staging - 4 Entrapment Site 1 – 2 (D)
Responders (Second Group)	26	ATB Cavek – 4 (N)    ATB Naniq – 4 (N) 28' Landing Craft – 3(N) M/V Seven Seas – 3 (N) M/V Morning Thunder - 4 (N) Staging - 5 (N) Entrapment Site 1 – 2 (N) Safety Officer – 1 (N)
Responders (Third Group)	24	22' WB – 2 (D)      22' WB – 2 (N) 18' WB – 2 (D)      18' WB – 2 (N) Staging – 2 (D) Entrapment Site 1 – 1 (D) Entrapment Site 1 – 1 (N) Entrapment Site 2 – 3 (D) Entrapment Site 2 – 3 (N) Entrapment Site 3 – 3 (D) Entrapment Site 3 – 3 (N)

## PFA Personnel

M/V Seven Seas	2	Master – 1    Mate - 1
M/V Morning Thunder	3	Master – 1    Mate – 1    Engineer - 1

**TABLE 1.6-31  
MECHANICAL RECOVERY CAPABILITY  
FOR VML RESPONSE SCENARIO NO. 2**

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Cavek/AVEC 208	Manta Ray	0830 Day 1	214	42.8	0030	16:00	3,424	684.8	10,000	Continuous	684.8
Naniq/A VEC 183	Manta Ray	0845	214	42.8	1430	5:45	1,227.5	245.5	8,000	Continuous	930.3
Naniq/A VEC 183	Manta Ray	1640	214	42.8	0100	8:40	1854.6	370.9	6,772.5	Continuous	1,301.2
On water recovery	Lamor 12	1700	76	15.2	1834	1:34	118.6	23.7	119	full	1,324.9
Ent. Site #1	Desmi Minimax	1730	220	44	1939	2:09	472.9	94.6	476	0:53	1,419.5
On water recovery	Lamor 12	1849	76	15.2	2023	1:34	118.6	23.7	119	full	1,443.2
On water recovery	Lamor 12	2045	76	15.2	2250	2:05	157.7	31.5	157.9	full	1,474.7
Ent. Site #1	Desmi Minimax	2100	220	44	2245	1:45	378	75.6	380.8	0:43	1,550.3
Ent. Site #1	Desmi Minimax	0000	220	44	0124	1:24	302.4	60.5	304	0:34	1,610.8
On water recovery	Lamor 12	0015	76	15.2	0134	1:19	99.54	19.9	100	full	1,630.7
Ent. Site #1	Desmi Minimax	0150	220	44	0257	1:07	241.2	48.2	243.2	0:27	1,678.9

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
On water recovery	Lamor 12	0200	76	15.2	0319	1:19	99.54	19.9	100	full	1,698.8
Ent. Site #1	Desmi Minimax	0330	220	44	0424	0:54	194.4	38.9	194.5	full	1,737.7
Cavek/ AVEC 208	Manta Ray	0430	214	42.8	0030 Day2	20:00	4,280	856	6,576	Continuous	2,593.7
Naniq/A VEC 183	Manta Ray	0500	214	42.8	0100	20:00	4,280	856	4,917.9	Continuous	3,449.7
On water recovery	Lamor 12	0530	76	15.2	0649	1:19	99.54	19.9	100	full	3,469.6
Ent. Site #1	Desmi Minimax	0700 Day 2	220	44	0912	2:12	475.2	95	476	1:39	3,564.6
On water recovery	Lamor 12	0730	76	15.2	0849	1:19	99.54	19.9	100	full	3,584.5
On water recovery	Lamor 12	0915	76	15.2	1055	1:40	126	25.2	126.3	full	3,609.7
Ent. Site #1	Desmi Minimax	1119	220	44	1304	1:46	378	75.6	380.2	1:03	3,685.3
On water recovery	Lamor 12	1120	76	15.2	1320	2:00	156.2	31.2	157	full	3,716.5
Ent. Site #2	Elastec TD-118	1140	134	26.8	1513	3:33	475	95	476	1:20	3,811.5
Ent. Site #3	Manta Ray	1300	214	42.8	1512	2:12	475	95	476	1:20	3,906.5
On water recovery	Lamor 12	1345	76	15.2	1504	1:19	99.54	19.9	100	full	3,926.4

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site #1	Desmi Minimax	1430	220	44	1554	1:24	302.4	60.5	304.2	1:04	3,986.9
On water recovery	Lamor 12	1520	76	15.2	1639	1:19	99.54	19.9	100	full	4,006.8
Ent. Site #2	Elastec TD-118	1645	134	26.8	1903	2:18	303.6	60.7	304.2	1:04	4,067.5
Ent. Site #3	Manta Ray	1650	214	42.8	1830	1:45	378	75.6	380.2	1:20	4,143.1
Ent. Site #1	Desmi Minimax	1910	220	44	2017	1:07	241.2	48.2	241.9	0:51	4,191.3
Ent. Site #3	Manta Ray	1955	214	42.8	2119	1:24	302.4	60.5	304.2	1:03	4,251.8
Ent. Site #1	Desmi Minimax	2010	220	44	2103	0:53	190.8	38.2	193.5	full	4,290
Ent. Site #2	Elastec TD-118	2015	134	26.8	2205	1:50	242	48.4	243.3	0:40	4,338.4
On water recovery	Lamor 12	2100	76	15.2	2240	1:40	126	25.2	126.3	full	4,363.6
Ent. Site #3	Manta Ray	2230	214	42.8	2338	1:07	241.2	48.2	243.3	0:51	4,411.8
Ent. Site #1	Desmi Minimax	2240	220	44	0052	2:12	475.2	95	476	1:20	4,506.8
Ent. Site #2	Elastec TD-118	2250	134	26.8	0018	1:28	193.6	38.7	194.6	0:33	4,545.5
On water recovery	Lamor 12	2300	76	15.2	0040	1:40	126	25.2	126.3	full	4,570.7
Ent. Site #3	Manta Ray	0045	214	42.8	0139	0:54	194.4	38.8	194.6	0:33	4,609.5

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
On water recovery	Lamor 12	0100	76	15.2	0219	1:19	99.54	19.9	100	full	4,629.4
Ent. Site #2	Elastec TD-118	0105	134	26.8	0215	1:10	154	30.8	154.8	full	4,660.2
Ent. Site #1	Desmi Minimax	0212	220	44	0357	1:45	378	75.6	380.8	1:04	4,735.8
Ent. Site #2	Elastec TD-118	0230	134	26.8	0606	3:36	475.2	95	476	1:20	4,830.8
Ent. Site #3	Manta Ray	0230	214	42.8	0313	0:43	154.8	30.9	155.7	Full	4,861.7
On water recovery	Lamor 12	0240	76	15.2	0349	1:19	99.5	19.9	100	full	4,881.6
Ent. Site #3	Manta Ray	0330	214	42.8	0542	2:12	475.2	95	476	1:19	4,976.6
On water recovery	Lamor 12	0400	76	15.2	0540	1:40	126	25.2	126.3	full	5,001.8
Cavek/ AVEC 208	Manta Ray	0430 Day 3	214	42.8	0030 Day 4	20:00	4280	856	5,260	Continuous	5,857.8
Naniq/A VEC 183	Manta Ray	0500	214	42.8	2300 Day 3	18:00	3852	770.4	3,934.2	Continuous	6,628.2
Ent. Site #1	Desmi Minimax	0515	220	44	0639	1:24	302.4	60.5	304.6	0:51	6,688.7
On water recovery	Lamor 12	0600	76	15.2	0740	1:40	126	25.2	126.3	full	6,713.9
Ent. Site #3	Manta Ray	0715	214	42.8	0900	1:45	378	75.6	380.8	1:20	6,789.5

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Operational Time Hr:M	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Time Required for Decanting Storage Hr:M	Total Oil Recovered
Ent. Site #1	Desmi Minimax	0745	220	44	0852	1:07	241.2	48.2	243.6	0:41	6,837.7
Ent. Site #1	Desmi Minimax	0945	220	44	1039	0:54	194.4	38.8	194.8	0:41	6,876.5
Ent. Site #3	Manta Ray	1030	214	42.8	1154	1:24	302.4	60.5	304.6	0:51	6,937
Ent. Site #2	Elastec TD-118	1140	134	26.8	1433	2:53	380.6	76.1	380.8	1:04	7,013.1

### 1.6.12.3 VML SCENARIO No. 3 – 100 BARRELS DIESEL FUEL NO. 2

This spill scenario presents the hypothetical oil spill response activities for an oil spill originating from a VML chartered tanker in Captains Bay, Dutch Harbor. In this scenario, the spill occurs at the OSI dock in Captains bay, Alaska. It is designed to demonstrate the ability to respond to an event of this size at any similar location. This scenario results in an oil spill of 100 barrels during the transfer of product to a shore facility. It is designed to demonstrate the ability of VML to respond to an event of this size and magnitude.

RESPONSE TYPE:	TYPE / AMOUNT:
VML response personnel and Alaska Chadux.	Diesel #2 – 100 barrels

#### INCIDENTN CAUSE / SOURCE

A defective transfer hose fails during cargo transfer operations. Diesel fuel has spilled to the deck of the tanker and into the water between the tanker and the dock. The tanker has been pre-boomed prior to the start of the transfer.

<b>TIME:</b>	0900	<b>WIND:</b>	5 SW
<b>SEASON:</b>	Summer	<b>TEMPERATURE:</b>	56 Degrees
<b>VISIBILITY:</b>	10 miles	<b>LOCATION:</b>	Captains Bay, Alaska

#### ASSUMPTIONS:

- Safe to commence response operations.
- The cause of the spill has no impact on the size or duration of the spill event.
- Evaporation and emulsification are not considered.
- No injuries are associated with the failure of the hose connection.
- Quantity of oil to the Water: 100 bbls of #2 diesel is spilled from a ruptured transfer hose directly into Captains Bay during offloading at OSI.

**Table 1.6-31  
TACTICAL OBJECTIVES  
(SCENARIO 3)**

<b>Command and Command Staff</b>		
	<b>0900 – 2000 hours Day 1</b>	<b>0800 – 2000 hours Day 2</b>
Unified Command	Activate VML IMT. Establish Incident Command at VML Anchorage office. Establish Unified Command by phone. Brief personnel on situation. Develop priorities and objectives. Ensure effective oil containment, control, and recovery.	Develop priorities and objectives. Ensure effective oil containment, control, and recovery.
Liaison	Ensure Unalaska is notified of spill. Ensure additional agencies are notified of spill. Identify stakeholder contacts.	Ensure additional agencies are notified of spill.
Public Information	Prepare public information release for approval of UC.	Prepare public information release for approval of UC.
Safety	Conduct initial site survey. Develop site safety plan. Provide safety briefing to all personnel.	Provide safety briefing to all personnel. Monitor personnel and operations for safety.

<b>Planning Section</b>		
	<b>0900 – 2000 hours Day 1</b>	<b>0800 – 2000 hours Day 2</b>
Planning Section	Prepare permit application for decanting and submit for approval. Establish meeting schedule.	Begin planning for decon operations.
Documentation Unit	Establish records procedures. Begin collection of documentation. Begin historical recording of activities.	Continue historical records maintenance. Maintain documentation.
Resource Unit	Identify resource needs and potential sources. Complete Org Chart (ICS 207) Maintain master list of resources.	Identify resource needs and potential sources. Maintain master list of resources.
Situation Unit	Start Situation board.	Maintain situation board.
Environmental Unit	Identify and prioritize environmentally sensitive areas. Prepare permit applications in support of UC objectives.	Monitor any wildlife in area for potential impacts.

<b>Operations Section</b>	
<b>0900 – 2000 hours Day 1</b>	<b>0800 – 2000 hours Day 2</b>
Recover contained product. Remove sheen with sorbents. Monitor area for any escaped product.	Remove any remaining sheen with sorbent materials. Monitor area for presence of sheen. Wipe down waterline on tanker with sorbent pads. Remove containment boom and clean.

<b>Logistics Section</b>	
<b>0900 – 2000 hours Day 1</b>	<b>0800 – 2000 hours Day 2</b>
Utilize resources from Unalaska depot. Determine items to be ordered to replace depot consumables.	Determine items to be ordered to replace depot consumables.

<b>Finance Section</b>	
<b>0900 – 2000 hours Day 1</b>	<b>0800 – 2000 hours Day 2</b>
Begin tracking all expenditures. Prepare contracts/agreements for vendors. Contact insurance carrier.	Track all expenditures. Track all time and equipment cost. Work with insurance carrier on any claims.

**Table 1.6-32  
DUTCH HARBOR SCENARIO STRATEGY  
FOR VML RESPONSE SCENARIO 3**

ADEC Requirement 18 ACC 75.425 (e)(1)(F)	Timeline – Actions Taken Day 1 0900 - 2000 hours	PFA CPLAN  Section Reference	Timeline – Actions Taken Day 2 0800 – 2000 hours	PFA CPLAN Section Reference
Safety	<ul style="list-style-type: none"> <li>• Master sounds general alarm.</li> <li>• Master accounts for the safety of all hands.</li> <li>• Chadux Response Technician in Dutch Harbor is assigned On-scene Incident Commander.</li> <li>• Conduct Initial Safety Assessment – Site was found to be safe.</li> <li>• Conduct initial safety briefing.</li> <li>• Prepare initial site safety plan.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessel and dock have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1
Notification	<ul style="list-style-type: none"> <li>• Tanker Master notifies shoreside transfer personnel.</li> <li>• Tanker Master notifies escort tug.</li> <li>• VML QI/Representative notified by tanker's Master.</li> <li>• NRC &amp; ADEC Notified by VML QI/Representative.</li> <li>• Chadux Notified by the VML QI/Representative, request for equipment and personnel in Dutch Harbor to respond.</li> <li>• Notification of City of Unalaska by VML QI/Representative.</li> </ul>	1.2.1 1.2.3 1.2.4.4 Fig.1.2-1 Fig. 1.2-2 Fig. 1.2-3 Fig. 1.2-4		
Stopping Discharge at Source & Lightering	<ul style="list-style-type: none"> <li>• Secure transfer pump.</li> <li>• Secure marine header.</li> <li>• Secure all vessel tank valves</li> <li>• Vessel crew to cleanup any oil that spilled on to the deck and into secondary containment.</li> </ul>	1.6.1		
Preventing or Controlling Fire Hazards	<ul style="list-style-type: none"> <li>• Secure potential ignition sources</li> <li>• Prepare firefighting equipment</li> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2
Surveillance & Tracking of Oil: Forecasting Shoreline Contact Points	<ul style="list-style-type: none"> <li>• Tanker crew conducts visual surveillance from the bridge.</li> <li>• Additional visual surveillance provided by Chadux 40' Landing Craft and skiff during operations.</li> <li>• Conduct over flight surveillance               <ul style="list-style-type: none"> <li>○ Large amount of oil near the tanker, which is being contained</li> <li>○ Uncontained oil is creating a heavy sheen to the north of the spill site.</li> </ul> </li> </ul>	1.6.3.1	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the ACC 40' Landing Craft and small vessels transiting area.</li> <li>• Over flight conducted to determine if any areas of sheen remain in area.</li> </ul>	1.6.3.1
Protection of ESA's and Areas of Public Concern	<ul style="list-style-type: none"> <li>• Establish contact with ADF&amp;G to identify and prioritize possible ESA's affected.</li> </ul>	3.10.3	<ul style="list-style-type: none"> <li>• Monitor areas of concern.</li> </ul>	3.10.3

ADEC Requirement 18 ACC 75.425 (e)(1)(F)	Timeline – Actions Taken Day 1 0900 -2000 hours	PFA CPLAN Section Reference	Timeline – Actions Taken Day 2 0800 – 2000 hours	PFA CPLAN Section Reference
Spill Containment & Control Actions & Spill Recovery Procedures	<ul style="list-style-type: none"> <li>Containment boom from OSI has been pre-deployed around tanker.</li> <li>Chadux mobilizes 40' Landing Craft and skiff.</li> <li>Mobilize Chadux 6 member company response personnel.</li> <li>Skim product in containment area.</li> <li>Use sorbent materials to cleanup any areas of sheen found outside of the containment area.</li> <li>Use sorbent materials to remove sheen inside containment area.</li> </ul>	1.5.3 1.6.6 1.6.4.1	<ul style="list-style-type: none"> <li>Remove any sheen found on water with sorbent materials.</li> <li>Use sorbent pads to wipe down tanker at water line to remove any clingage.</li> <li>Remove containment boom and clean.</li> </ul>	1.5.3 1.6.6 1.6.4.1
Transfer and Storage of Recovered Oil/Water: Volume Estimating Procedure	<ul style="list-style-type: none"> <li>Sound cargo tanks.</li> <li>Set up Fastank and 2 2,500 gal land bladders at OSI dock.</li> <li>Set up centrifugal pump and hoses for recovered liquid transfer.</li> </ul>	Table 1.2-3 1.6.7 1.6.8 1.6.9	<ul style="list-style-type: none"> <li>Transfer remaining recovered liquids to facility tankage.</li> <li>Sound facility tank being used for temporary storage.</li> </ul>	Table 1.2-3 1.6.7 1.6.8 1.6.9
Plans, Procedures and Locations for Temporary Storage and Disposal	<ul style="list-style-type: none"> <li>Permit for decanting recovered water back into containment area is prepared and submitted to ADEC</li> <li>Identify required permits and begin permit applications.</li> </ul>	1.6.8 3.3.2	<ul style="list-style-type: none"> <li>Prepare disposal plan for collected wastes.</li> </ul>	1.6.8 3.3.2
Wildlife Protection Plan	<ul style="list-style-type: none"> <li>Establish contact with resource agencies</li> <li>Identify environmentally sensitive areas</li> </ul>	1.6.10	<ul style="list-style-type: none"> <li>Report any wildlife observed in the spill area.</li> </ul>	1.6.10
Shoreline Cleanup	<ul style="list-style-type: none"> <li>Survey shoreline near OSI dock for any impact.</li> <li>Use sorbent material to remove any sheen near shoreline.</li> </ul>	Table 1.6-8	<ul style="list-style-type: none"> <li>Survey shoreline near OSI dock for any impact.</li> <li>Use sorbent material to remove any sheen near shoreline.</li> </ul>	Table 1.6-8
Non-Mechanical Response	N/A	1.7	N/A	1.7

**TABLE 1.6 –33  
EQUIPMENT AND PERSONNEL ASSIGNMENTS  
(SCENARIO 3)**

**Unalaska Hub Resources**

28' Landing Craft	1	On water
Skiff	1	On water
Centrifugal pump	2	1 – skimming system 1- liquids transfer
Skimpak 1800	1	1 – OSI dock
PPE Kit	1	Assigned to response personnel
Absorbent sweep	10	Staging
Absorbent boom	10	Staging
Absorbent pads	15	Staging
Land bladder (2,500 gal)	2	2 – OSI dock
Fastank (2,400 gal)	1	1 – OSI dock

**ACC Personnel**

Manager	1	Initial On-Scene Commander/ACC LC
Member company response personnel	6	2 – ACC Landing Craft 2 – Skiff 2 – OSI dock (recovered product transfer)

**TABLE 1.6-34  
MECHANICAL RECOVERY CAPABILITY  
FOR VML RESPONSE SCENARIO NO. 3**

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Total Oil Recovered
Tanker	Skimpak 1800	1400 @ 100 gpm	428	85.6	1425	59.5	11.9	176	11.9
Tanker	Skimpak 1800	1430 @ 100 gpm	428	85.6	1455	59.5	11.9	176	23.8
Tanker	Skimpak 1800	1500 @ 100 gpm	428	85.6	1520	47.6	9.5	176	33.3
Tanker	Skimpak 1800	1530 @ 100 gpm	428	85.6	1550	47.6	9.5	176	42.8
Tanker	Skimpak 1800	1600 @ 100 gpm	428	85.6	1620	47.6	9.5	176	52.3
Tanker	Skimpak 1800	1630 @ 100 gpm	428	85.6	1646	38	7.6	176	59.9
Tanker	Skimpak 1800	1650 @ 100 gpm	428	85.6	1706	38	7.6	176	67.5
Tanker	Skimpak 1800	1710 @ 100 gpm	428	85.6	1726	38	7.6	176	75.1
Tanker	Skimpak 1800	1730 @ 100 gpm	428	85.6	1743	30.5	6	176	81
Tanker	Skimpak 1800	1750 @ 100 gpm	428	85.6	1803	30.5	6	176	87
Tanker	Skimpak 1800	1810 @ 100 gpm	428	85.6	1823	30.5	6	176	93
Tanker	Skimpak 1800	1830 @ 100 gpm	428	85.6	1840	23.8	4.8	176	97.8

## 1.6.12.4 VML SCENARIO No. 4 – 100 BARRELS DIESEL FUEL NO. 2

This spill scenario presents the hypothetical oil spill response activities for an oil spill originating from a VML chartered tanker in Seward. In this scenario, the spill occurs at the Shoreside Petroleum dock in Resurrection bay, Alaska. It is designed to demonstrate the ability to respond to an event of this size at any similar location. This scenario results in an oil spill of 100 barrels during the transfer of product to a shore facility.

### RESPONSE TYPE:

VML response personnel and Alaska Chadux.

### TYPE / AMOUNT:

Diesel #2 – 100 barrels

### INCIDENTN CAUSE / SOURCE

A defective flange gasket fails during cargo transfer operations. Diesel fuel has spilled to the deck of the tanker and into the water between the tanker and the dock. The tanker has been pre-boomed prior to the start of the transfer.

**TIME:** 0730

**SEASON:** Summer

**VISIBILITY:** 10 miles

**WIND:** 5 SW

**TEMPERATURE:** 48 Degrees

**LOCATION:** Seward, Alaska

### ASSUMPTIONS:

- Safe to commence response operations.
- The cause of the spill has no impact on the size or duration of the spill event.
- Evaporation and emulsification are not considered.
- No injuries are associated with the failure of the hose connection.
- Quantity of oil to the Water: 100 bbls of #2 diesel is spilled from a defective flange gasket at the marine header directly into Resurrection Bay during offloading at Shoreside Petroleum.

**Table 1.6-34  
TACTICAL OBJECTIVES  
(SCENARIO 4)**

<b>Command and Command Staff</b>		
	<b>0730 – 2000 hours Day 1</b>	<b>0800 – 2000 hours Day 2</b>
Unified Command	Activate VML IMT. Establish Incident Command at VML Anchorage office. Establish Unified Command by phone. Brief personnel on situation. Develop priorities and objectives Ensure effective oil containment, control, and recovery.	Develop priorities and objectives. Ensure effective oil containment, control, and recovery.
Liaison	Ensure City of Seward is notified of spill. Ensure Seward Harbor Master is notified. Ensure additional agencies are notified of spill. Identify stakeholder contacts.	Ensure additional agencies are notified of spill.
Public Information	Prepare public information release for approval of UC.	Prepare public information release for approval of UC.
Safety	Conduct initial site survey. Develop site safety plan. Provide safety briefing to all personnel.	Provide safety briefing to all personnel. Monitor personnel and operations for safety.

<b>Planning Section</b>		
	<b>0730 – 2000 hours Day 1</b>	<b>0800 – 2000 hours Day 2</b>
Planning Section	Prepare permit application for decanting and submit for approval. Establish meeting schedule.	Begin planning for decon operations.
Documentation Unit	Establish records procedures. Begin collection of documentation. Begin historical recording of activities.	Continue historical records maintenance. Maintain documentation.
Resource Unit	Identify resource needs and potential sources. Complete Org Chart (ICS 207) Maintain master list of resources.	Identify resource needs and potential sources. Maintain master list of resources.
Situation Unit	Start Situation board.	Maintain situation board.
Environmental Unit	Identify and prioritize environmentally sensitive areas. Prepare permit applications in support of UC objectives.	Monitor any wildlife in area for potential impacts.

<b>Operations Section</b>	
<b>0730 – 2000 hours Day 1</b>	<b>0800 – 2000 hours Day 2</b>
Recover contained product. Remove sheen with sorbents. Monitor area for any escaped product.	Remove any remaining sheen with sorbent materials. Monitor area for presence of sheen. Wipe down waterline on tanker with sorbent pads. Remove containment boom and clean.

<b>Logistics Section</b>	
<b>0730 – 2000 hours Day 1</b>	<b>0800 – 2000 hours Day 2</b>
Utilize resources from Anchorage and Seward depots. Determine items to be ordered to replace depot consumables.	Determine items to be ordered to replace depot consumables. Schedule vacuum trucks to transport recovered liquids for disposal.

<b>Finance Section</b>	
<b>0730 – 2000 hours Day 1</b>	<b>0800 – 2000 hours Day 2</b>
Begin tracking all expenditures. Prepare contracts/agreements for vendors. Contact insurance carrier.	Track all expenditures. Track all time and equipment cost. Work with insurance carrier on any claims.

**Table 1.6-35**  
**SEWARD SCENARIO STRATEGY**  
**FOR VML RESPONSE SCENARIO 4**

ADEC Requirement 18 ACC 75.425 (e)(1)(F)	Timeline – Actions Taken Day 1 0730 - 2000 hours	PFA CPLAN  Section Reference	Timeline – Actions Taken Day 2 0800 – 2000 hours	PFA CPLAN Section Reference
Safety	<ul style="list-style-type: none"> <li>• Master sounds general alarm</li> <li>• Master accounts for the safety of all hands</li> <li>• Chadux assigned as site safety officer.</li> <li>• Conduct Initial Safety Assessment – Site was found to be safe.</li> <li>• Conduct initial safety briefing</li> <li>• prepare initial site safety plan.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1	<ul style="list-style-type: none"> <li>• Provide briefing to all new personnel.</li> <li>• Ensure personnel on vessel and dock have PFD's.</li> <li>• Monitor safety of personnel.</li> <li>• Revue safety plan and make adjustments to as necessary.</li> </ul>	1.1.1 1.3. 3 1.3.4 Fig. 1.3-1
Notification	<ul style="list-style-type: none"> <li>• Tanker Master notifies shoreside transfer personnel.</li> <li>• Tanker Master notifies escort tug</li> <li>• VML QI/Representative notified by tanker's Master</li> <li>• NRC &amp; ADEC Notified by VML QI/Representative</li> <li>• Chadux Notified by the VML QI/Representative, request for equipment and personnel in Anchorage to respond.</li> <li>• Notification of City of Seward by VML QI/Representative.</li> <li>• Seward Harbor Master notified by VML QI/Representative.</li> </ul>	1.2.1 1.2.3 1.2.4.4 Fig.1.2-1 Fig. 1.2-2 Fig. 1.2-3 Fig. 1.2-4		
Stopping Discharge at Source & Lightering	<ul style="list-style-type: none"> <li>• Secure transfer pump.</li> <li>• Secure marine header.</li> <li>• Secure all vessel tank valves</li> <li>• Vessel crew to cleanup any oil that spilled on to the deck and into secondary containment.</li> </ul>	1.6.1		
Preventing or Controlling Fire Hazards	<ul style="list-style-type: none"> <li>• Secure potential ignition sources</li> <li>• Prepare firefighting equipment</li> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2	<ul style="list-style-type: none"> <li>• Monitor air levels for flammable vapors</li> </ul>	1.6.2
Surveillance & Tracking of Oil: Forecasting Shoreline Contact Points	<ul style="list-style-type: none"> <li>• Tanker crew conducts visual surveillance from the bridge.</li> <li>• Additional visual surveillance provided by Chadux Landing Craft and skiffs</li> <li>• Conduct over flight surveillance               <ul style="list-style-type: none"> <li>○ Large amount of oil near the tanker, which is being contained</li> <li>○ Uncontained oil is spreading to the south slowly.</li> </ul> </li> </ul>	1.6.3.1	<ul style="list-style-type: none"> <li>• Visual surveillance is conducted from the bridge of the tanker, ACC Landing Craft and skiffs transiting area.</li> <li>• Over flights conducted to determine if any areas of sheen remain in the area.</li> </ul>	1.6.3.1
Protection of ESA's and Areas of Public Concern	<ul style="list-style-type: none"> <li>• Establish contact with ADF&amp;G to identify and prioritize possible ESA's affected.</li> </ul>	3.10.3	<ul style="list-style-type: none"> <li>• Establish contact with ADF&amp;G to identify and prioritize possible ESA's affected.</li> <li>• Monitor any areas of concern.</li> </ul>	3.10.3

ADEC Requirement 18 ACC 75.425 (e)(1)(F)	Timeline – Actions Taken Day 1 0730 -2000 hours	PFA CPLAN Section Reference	Timeline – Actions Taken Day 2 0800 – 2000 hours	PFA CPLAN Section Reference
Spill Containment & Control Actions & Spill Recovery Procedures	<ul style="list-style-type: none"> <li>Containment boom from Shoreside Petroleum has been pre-deployed around tanker prior to transfer operations.</li> <li>Chadux mobilizes for equipment and personnel for transport to Seward by road..</li> <li>Chadux response personnel depart Anchorage in 3 Chadux trucks. 11 responders.</li> <li>Launch ACC boats at Seward Harbor.</li> <li>Skim oil in containment area.</li> <li>Use sorbent materials to cleanup any areas of sheen outside of the containment area.</li> <li>Use sorbent materials to remove sheen from within the containment area.</li> </ul>	1.5.1 1.6.6 1.6.4.1	<ul style="list-style-type: none"> <li>Remove any sheen found on water with sorbent materials.</li> <li>Use sorbent pads to wipe down tanker at water line to remove any clingage.</li> <li>Remove containment boom and clean.</li> </ul>	1.5.3 1.6.6 1.6.4.1
Transfer and Storage of Recovered Oil/Water: Volume Estimating Procedure	<ul style="list-style-type: none"> <li>Sound tanks</li> <li>Set up 2 – 10,000 gal. land bladders and 2,400 gal. Fastank at the Shoreside Petroleum dock</li> <li>2 responders to monitor temporary storage site and assist with hoses and connections.</li> </ul>	Table 1.2-3 1.6.7 1.6.8 1.6.9	<ul style="list-style-type: none"> <li>Transfer remaining recovered liquids to vacuum trucks for transportation to recycling facility in Anchorage.</li> <li>Sound vacuum truck tanks before departure to Anchorage.</li> </ul>	Table 1.2-3 1.6.7 1.6.8 1.6.9
Plans, Procedures and Locations for Temporary Storage and Disposal	<ul style="list-style-type: none"> <li>Permit for decanting recovered water back into containment area is prepared and submitted to ADEC</li> <li>Identify required permits and begin permit applications.</li> </ul>	1.6.8 3.3.2	<ul style="list-style-type: none"> <li>Prepare disposal plan for collected wastes.</li> </ul>	1.6.8 3.3.2
Wildlife Protection Plan	<ul style="list-style-type: none"> <li>Establish contact with resource agencies</li> <li>Identify environmentally sensitive areas</li> </ul>	1.6.10	<ul style="list-style-type: none"> <li>Report any wildlife observed in the spill area</li> </ul>	1.6.10
Shoreline Cleanup	<ul style="list-style-type: none"> <li>Survey shoreline near OSI dock for any impact.</li> <li>Use sorbent material to remove any sheen near shoreline.</li> </ul>	Table 1.6-8	<ul style="list-style-type: none"> <li>Survey shoreline near OSI dock for any impact.</li> <li>Use sorbent material to remove any sheen near shoreline.</li> </ul>	Table 1.6-8
Non-Mechanical Response	N/A	1.7	N/A	1.7

**TABLE 1.6 –36  
EQUIPMENT AND PERSONNEL ASSIGNMENTS  
(SCENARIO 4)**

**Anchorage Hub Resources**

28' Landing Craft	1	On water
Skiff	2	On water
Centrifugal pump	2	1 – Recovered liquids transfer 1 - Staging
Hose Kit	2	1 – Dock 1 - Staging
Manta Ray Skimmer	1	Staging
Absorbent sweep	10	Staging
Absorbent boom	10	Staging
Absorbent pads	15	Staging
Land bladder (10,000 gal)	2	2 - Dock
Fastank (2,400 gal)	1	1 - Dock

**Seward Hub Resources**

Containment boom	1,000'	Staging
Anchor Kit	1	Staging
Centrifugal pump	1	1- Tanker
Desmi Minimax skimmer	1	1 - Tanker

**ACC Personnel**

VML Manager/QI	1	Initial On-Scene Commander
Chadux Response Personnel	11	3 – 28' LC 2- Skiff #1 2 – Skiff #2 2 – Dock (recovered liquids monitor)

**TABLE 1.6-37  
MECHANICAL RECOVERY CAPABILITY  
FOR VML RESPONSE SCENARIO NO. 4**

Site	Skimmer	Time Skimming Begins	Skimmer Name Plate Capacity (bbl/hr)	Skimmer Capacity (EDRC bbl/hr)	Time Skimming Stops	Liquids Recovered	Oil Recovered	On Site Storage Capacity – bbl	Total Oil Recovered
Tanker	Desmi Minimax	1530	220	44	1630	220	44	533	44
Tanker	Desmi Minimax	1645	220	44	1745	220	44	533	88
Tanker	Desmi Minimax	1800	220	44	1815	55	11	533	99

## 1.7 NON-MECHANICAL RESPONSE OPTIONS

VML does not intend on using on-water dispersants or in-situ burning. However, in-situ burning operations may be applicable on a case by case basis for shoreline cleanup. In-situ burning would entail ignition of pooled oil along the shoreline and contaminated vegetation by use of a propane weed burner. In-situ burning would be conducted only under the following conditions:

- Unified Command Approval
- Development of an In-situ Burning Application
- Approval of RRT, including approval of all parties that must approve an in-situ burning application
- Fire Control in place to ensure that the fire is controlled and does not spread.

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## **1.8 VESSEL SPECIFICATIONS**

**Vessel specific information will be submitted to ADEC in the Spot Charter Package, prior to any operations in Alaska state waters.**

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**VITUS MARINE, LLC.**

**CHARTERED TANKER PREVENTION PROGRAMS, PART II**

**Document Control Sheet**

Originators: Mark Smith

<i>Approved by Dept.</i>	<i>Name</i>	<i>Signature</i>	<i>Date</i>
Vessel Ops.	Mark Smith		

Change Record

<i>Revision#</i>	<i>Date</i>	<i>Approved By</i>	<i>Description of Change</i>

Distribution List

Vessel C-Plan  
Anchorage Office  
ADEC  
ADF&G  
ADNR  
CRSAs

Special Instructions

## 2.1 PREVENTION PROGRAMS IN PLACE

VML Chartered Tanker Vessel Crew Position Descriptions and Duties.

The crew complement onboard the VML chartered tankers is established by the vessel's Port State Regulatory Agency or Classification Society, and includes Master, Mates, Engineers and Rating personnel. A general description of their duties and licensing requirements are provided below.

**Master** – Responsible for the safe navigation of the vessel and the safety of the crew and vessel.

**Mates** – Mates are the general duty officers on the vessel and are responsible for the supervision of the deck department.

**Engineers** – Engineers are responsible for the maintenance and operation of the vessels propulsion and power generation plants. Engineers are responsible for the supervision of the engine department.

**Rating Personnel** – The Rating positions are responsible for maintenance and operations of deck/engine equipment and general seamanship.

### 2.1.1 PREVENTION TRAINING PROGRAMS

VML's oil spill training program objectives are as follows:

- Safer operation of the vessel and safe working conditions for employees. Achieved through:
  - HAZWOPER training that is conducted for all vessel crew (not including cook). HAZWOPER training is conducted initially and refresher training is conducted annually.
  - On the Job Training – hands on training conducted for all personnel during normal work hours. All crew positions.
  - Safety meetings and briefings – conducted by vessel masters on board the vessel and conducted by VML at regular, unscheduled times during the year. All crew positions.
- Minimize negative impact to the environment.
  - Achieved through all training programs.
- Spill prevention, including prevention of overfill of tanks and leak detection.
  - Achieved through review of the OSCP and through the annual VML Spill Prevention Training program. Required for all VML vessel personnel and management. Exceed requirements of 18 AAC 75.007(d) and 18 AAC 75.020(a).
- Spill Response: Achieved through review of the OSCP and through the VML Prevention Training program, conducted annually. Also includes response exercises, see below. Also, refer to the matrix of response training courses in Section 3.9.

#### **Exercises (in accordance with 33 CFR 155.1055):**

All employee training records are kept at VML's Anchorage office and includes the date, training course/event name, and signature of attendees. Safety, Fire, and Training records are kept as long as each employee is employed and a minimum of 5 years. Drill records are maintained onboard the vessel in the ship's log and at the Anchorage office.

1. Qualified Individual Notification & Emergency Procedures Drill  
QI Notification & Emergency Procedures drills are performed quarterly.
2. Equipment deployment drills.  
A deployment of containment boom and skimming system will be performed annually.

3. Barge Retrieval Annual Deployment Drills
4. Spill Management Team Tabletop Exercise  
Spill management team table top drills are annual. Once in three years it is for a worst case discharge scenario.
5. Unannounced Drills.  
VML will participate in unannounced drills as directed by the applicable Captain of The Port (COTP).
6. Triennial Exercise  
Every three years all components of the entire response plan must be exercised. The 15 components of PREP must be exercised once during each three-year period.

VML will comply with the requirements of the Preparedness for Response Exercise Program (PREP) Guidelines dated August 2002.

*See Section 3.9 for additional training information.*

## **2.1.2 SUBSTANCE ABUSE PROGRAMS**

### Drug Testing Policy

VML is strongly committed to providing its employees with a safe environment in which to work. To enhance this effort, the company has instituted a drug-testing program. VML's drug testing program conforms to the requirements of 46 CFR 16 and 18 AAC 75.007(e). The VML Manager is responsible for the Drug Testing Policy and ensures the policy is enforced.

Every employee will be required to sign an agreement consenting to submit to designated drug tests. Refusal to cooperate fully, sign the consent forms, or submit to a drug and/or alcohol test when directed will be considered a violation of company policy and be grounds for disciplinary action up to and including termination.

### The Drug Test

An "Illegal Drug" is defined as any chemical substance (1) which cannot be obtained legally, or (2) which is legal to use but has not been legally obtained. The term includes prescribed drugs not obtained by you and properly prescribed drugs being used contrary to a doctor's orders. Violation of this provision will result in disciplinary action up to and including termination.

### Type of Test Given

All employees will be given a Department of Transportation (DOT5) test.

A licensed physician, knowledgeable in substance abuse has been contracted to act as Medical Review Officer. The Medical Review Officer shall review and interpret positive test results.

Testing will be conducted under the following circumstances:

1. When an employee is hired
2. Every employee will be tested annually
3. Random
4. Any accident or incident
5. Reasonable cause

### Testing Location Procedures

All collected samples will be appropriately shipped to the designated site in Anchorage, Alaska.

### Positive Drug Test Results

If an employee tests positive, the Medical Review Officer will contact him/her directly. A positive test may be grounds for immediate dismissal. As per 46 CFR 16.370(d), rehire is possible. A second positive

result will result in immediate dismissal, with no eligibility for rehire. All positive results will be reported to the USCG when applicable.

#### Alcohol Test

VML has a zero tolerance concerning blood alcohol levels. There are two testing types: breathscan and blood alcohol level. Testing for alcohol will be done whenever there is an accident, incident or reasonable cause. A positive test for alcohol may be grounds for immediate suspension or dismissal.

### **2.1.3 MEDICAL PROGRAM**

This policy provides a list of physical examinations that may be required of VML vessel crewmembers by policy and/or federal regulation.

The Manager is responsible for ensuring that the physical exams required by this policy are performed and for monitoring the administration of this program.

All USCG licensed personnel have physicals in conjunction with their Coast Guard license renewal.

The following physical exams and tests may be required of VML vessel crewmembers in accordance with regulation:

- a) Pre-employment physical, benzene physical, and drug screen;
- b) Annual benzene physical, including drug test;
- c) Urinary phenol test when overexposure to benzene occurs;
- d) Random, for cause, and post-accident drug testing; and,
- e) Annual respirator fit test.

These exams are performed at the company's request, but all test results must be provided to employees and copies made available to employees upon request.

All employees who handle fuel are under VML's Respiratory Protection Program.

### **2.1.4 SECURITY PROGRAM**

Vessel Security:

Persons other than employees, customer representatives, government officials, or authorized service personnel are not allowed onboard VML chartered vessels without prior authorization. It is the responsibility of the master to ensure that no unauthorized visitors board the vessel at any time.

Authorization for outside personnel to come aboard a VML chartered vessel must be requested by the Master from the Manager before allowing visitors onboard.

No solicitation of any kind is allowed onboard any VML chartered vessel. All solicitations must be directed to the Manager.

All persons requiring unescorted access to a vessel covered by this program **MUST** possess a TWIC before such access is granted, except for:

- 1. New hires as provided for in the program;
- 2. Federal, state, or local government officials in the course of their official duties, provided such officials present a valid official credential issued by their agency; and
- 3. Emergency responders, when responding to an emergency situation.

A person without a valid TWIC **MUST** be escorted while onboard the vessel, except as provided for in the program, and **MUST** present a form of personal identification that:

1. Is laminated or otherwise secure against tampering;
2. Contains the individual's full name (full first and last names, middle initial is acceptable);
3. Contains a photo that accurately depicts that individual's current facial appearance; and
4. Bears the name of the issuing authority (government authority, union, trade association, employer, etc.)

Security rounds must include inspection of the face wires, deck equipment, and navigation lights on the vessel if safe and practicable.

Chartered tank vessels will be required to comply with the requirements of The International Ship and Port Facility Security (ISPS) Code as incorporated in SOLAS Regulations. The Tank Vessel Security Officer will be identified on the Q-88 Information and Data Required for Chartered Tank Vessels. All of the Vessel Security restrictions identified above will also be complied with in addition to those required by the facility.

## **2.1.5 VESSEL TRANSFER PROCEDURES**

Tank vessels will be boomed at the shoreside transfer facility prior to any transfer of fuel as a preventative measure. Tank vessel specific transfer procedures will be included with the vessel specific information submitted to ADEC prior to the vessel entering state waters.

The Person In Charge - personally supervises connecting, topping off, disconnecting and other critical transfer procedures. Personally instructs other persons on duty when to start the flow of oil to or from the vessel. Personally supervises preparation of the tanker for the transfer, confers with person in charge of the facility to assure each understands how to work together during transfer operations, conducts an inspection and completes a declaration of inspection prior to transfer. Remains in the immediate vicinity of the cargo pump or emergency shutoff and is immediately available to stop the transfer.

Tankerman - Tends the tank being loaded/discharged, including taking soundings and maintaining visual observation of the loading hose and connection to the tank. Keeps person in charge advised of the level of cargo in the tank. Advises person in charge immediately of any unusual conditions. When in doubt, shuts down transfer operations. May be the PIC.

Moorage - The master shall designate a crewman to tend mooring lines as directed by the person in charge, to keep the vessel stable preventing stress on any hose or transfer component.

### **A. Before Transfer:**

1. Refer to the vessel's specific transfer procedures.
2. Complete the ADEC "Contingency Plan Verification Log" (See F. below) for all facilities over 10,000 barrels capacity.
3. Levels of product in affected tanks are verified by sounding.
4. All tanks, valves, piping, & hoses will be inspected for wear, damage and suitability.
5. Facility to deploy spill boom around tanker.
6. Scuppers are plugged.
7. Charge transfer system (ie hoses) with air to verify connections.
8. The initial flow rate will be determined and agreed upon by respective PICs.
9. Loading or discharge sequence will be determined (review vessel specific transfer procedures)
10. A pre-transfer conference with both shore and vessel Persons in Charge will be held and the Declaration of Inspection form (DOI) reviewed and signed by both PICs.
11. No VML employee will act as a Shoreside PIC. VML personnel may only assist shoreside PICs.
12. Radio equipment and hand signals will be determined.
13. Ensure tanks to receive product have overfill devices that are operating properly.

14. Proper tank valves opened.
15. Pump started and warmed up.

#### **B. Begin Transfer Procedures:**

1. Tanker valve opened and pump engaged at pre-determined start-up rate.
2. Transfer is started slowly to:
  - a. VERIFY product is entering the correct tank
  - b. VERIFY there are no leaks in hoses, fittings, valves, etc.
  - c. put a "bottom" on a tank, if necessary.
3. Pumping speed is then increased to the rate agreed upon by both "persons-in-charge" at the pre-transfer conference.
4. Take samples as required. (API, color, smell).

#### **C. During the Transfer:**

1. Shoreside person regularly monitors tank to verify product is entering the correct tank. Compares gauges with preplanned rates, gauges, and expectations. If discrepancies exist, stop transfer operations until differences are rectified. Stays within hearing distance of the overfill alarm.
2. Vessel person observes line from tanker to marine header, making sure there are no leaks in hoses, fittings, valves, etc. and makes contact with shoreside person at the tank every 30 minutes.
3. The hoses will also be adjusted to compensate for changes in the tide and vessel draft where applicable.
4. Continuous inspection of pumping systems and tanks will be supervised by both "persons-in-charge."
5. To prevent contamination of petroleum products, each product will be transferred individually.

#### **D. Completion of Transfer**

When a tank is filled within 90% of the safe fill height (outage) , a PIC will stay at the tank continuously monitoring the fill height until the transfer to that tank is complete.

1. Reduce pumping rate and finish pump at lowered rate.
2. Tank PIC communicates to pumping PIC when ready to stop.
3. Vessel discharge operation, the vessel pump is secured almost simultaneously with the discharge header valve so the hose never gets a buildup of pressure. (The pump also has a bypass set between 75 and 125 psi. that limits the pressure on the discharge side.)
  - All marine header valves will be closed and locked.
4. Facility to vessel transfer, marine header is secured first and the hose vented and allowed to drain back to the tanker. The hose is removed from the vessel header and the hose capped.
5. Drip pans and containments are pumped into designated containers.
6. Levels of product in the affected tanks will be verified by mechanically dipping the tanks and checking the results against the meter readings.
7. Receiving documents completed and signed.

Emergency shutdown is initiated as follows:

- a. Tanker to tank / tank to tanker, warning via VHF radio, tanker PIC shuts down the tanker pump and all pertinent valves are closed.
- b. Tank to tank, warning via VHF radio, PIC shuts down pump and all pertinent valves are closed.

- c. Emergency shut-downs are immediate and are located at the transfer locations.
- d. Product lines are equipped with check valves and or block valves at the marine headers.
- e. There is a block valve at the tanks permitting closing of the line in an emergency.
- f. Emergency shutdown of the suction side is accomplished by stopping the transfer pump and/or closing the gate valve on the discharge/fill line.

## **E. Communications**

Tanker/tank transfers, Tank/tank transfers, vessel/truck transfers, all communications are via VHF intrinsically safe hand held radios (review Section 1.4.1).

## **F. ADEC Contingency Plan Verification Requirement and Log**

Per the requirements of 18 AAC 75.465, prior to any transfers to/from tank vessels, the terminal PIC will personally verify that the vessel has the certificate approving the Oil Discharge Prevention and Contingency Plan and a copy of the C-Plan Part I (Response Action Plan) for that vessel or barge is aboard the vessel. The verification is logged for each separate loading or unloading on the " ADEC C-Plan Verification Log " form. A copy of that log is submitted to ADEC monthly by the 5<sup>th</sup>. ADEC retains a copy for 3 years.

Under AS 46.04.030 all facilities in the State of Alaska required to have an ADEC approved Oil Discharge Prevention and Contingency Plan (10,000 bbls. in service capacity) are required to fulfill the ADEC Contingency Plan Verification Requirement and Log as described above.

## **G. Tank to Tank Transfers.**

The transfer will occur within the fixed piping system of the vessel.

Connect transfer hose to the appropriate cargo line header then to the suction side of the transfer pump. Connect a transfer hose from the discharge side of the transfer pump to the receiving tank drop tube. Follow the transfer procedures as described in this section and vessel specific diagrams/transfer procedures.

## **H. Know the hazards of and instructions for the safe handling of the cargo:**

- Fuel Oils carried by VML chartered tankers are a light petroleum derivative, amber to clear in color.
  - Fuel Oil carried by VML chartered tankers has the familiar odor of petroleum.
  - Fuel Oil carried by VML chartered tanker is highly flammable and poisonous if taken internally. Contact with the cargo can cause skin irritation; Vapors can cause eye irritation, dizziness, and discoloration of the skin. (refer to MSDS in the MSDS Manual onboard)
1. There will be NO SMOKING, NO OPEN LIGHTS and NO VISITORS during fuel transfers.
  2. Protective clothing and vapor respirators shall be used as applicable.
  3. No oil soaked rags are to be stored in the containment; dispose of rags properly.
  4. In the event of fuel spillage/leakage during transfer operations, all transfer operations will be stopped immediately. When the source of the leakage or spillage has been determined and eliminated, transfer operations may be resumed.
  5. A portable dry chemical, carbon dioxide or equivalent fire extinguisher (B-II) is to be located at the fueling station at all times during fueling operations and (1) one B-II portable fire extinguisher is to be found at the cargo pump module.

6. A minimum of (2) two persons will be on duty at each marine transfer when transferring product to a petroleum tanker or a tank, (1) one qualified person at the dock/tank car/truck header serving as a hose/pump watch and (1) one qualified person at the tanker/tank serving as a tank watch.
7. When loading a tanker/tank, the PIC at the fuel header/pump will be in charge. When unloading the tanker, the PIC at the vessel pump will be in charge. PICs will review the transfer operation with all involved and sign the DOI.
8. The PIC will inspect all lines, block valves that are open or closed as required. He/she will inspect the facility to see that the fire extinguishers, barricades, warning signs, anti sparking devices, and drip pans are on site and in place. The PIC is responsible for all operations, checking lines during a transfer, gauging tanks, scheduling line transfers and closing tanks upon completion of a transfer.
9. The hose watch will be in constant attendance when the vessel's hoses are coupled to the marine header. He/she will witness the DOI meeting between the persons-in-charge of the inspection of the dock facility and tanker including fire fighting equipment, barricades, warning signs, condition of pipeline/hoses closing or opening of all dock/tanker headers, bleeder and block valves and the securing of service lines associated with the cargo lines. He/she will monitor the cargo hoses in use during product transfer and will adjust same for changes in wind, tide or other factors which would cause the vessel to move assuring no strain is put on a hose.
10. Communication between all personnel involved in a fuel transfer will be by portable radio. Use of radio equipment during transfer operations is permitted only if the equipment is intrinsically safe and meets Class I, Division D standards. During the transfer, the hose watch walks the length of the transfer hose reporting any leaks or problems.
11. A drip pan is to be positioned under each cargo header if not so equipped. Accumulated product is transferred from drip pans to vessel tankage.

## **I. Lightering Procedures:**

1. When first picking up a barge to use for lightering from a fleet, from another boat, or from a shipyard or dock, attend to the items on the VML Barge Inspection Report:
  - a) Check the condition and inspection date of the cargo hoses to be used for the transfer. Cargo hoses provided by the ship must pass visual inspection and the Person in Charge of the transfer on the ship must show proof of the annual testing of the hoses;
  - b) Ensure that a minimum of four fender tires are in place on the barge;
  - c) Ensure that a minimum of four mooring lines are onboard. Obtain additional lines if strong currents, tides, or seas are anticipated;
  - d) Ensure that pollution control material and equipment is on board the barge;
  - e) Ensure that a minimum of two portable radios are on board;
  - f) Report deficiencies to the wheelhouse person on watch before proceeding with the barge.
2. Before going alongside the ship to transfer, follow these precautions:
  - a) Ensure the lightering site is in an area approved by the Coast Guard, state and local port authorities, as applicable;
  - b) Ensure that the lightering site does not imperil or impede safe navigation;
  - c) Ensure that a standby boat will be on the scene during all lightering operations;
  - d) Ensure that a "Letter of Alternative Compliance" has been received from the Captain of the Port and is on board for a multi-barge transfer; and,
  - e) If these conditions cannot be met, or if you are at all uncertain, do not proceed with the transfer. Contact the VML dispatcher.
3. For ship lightering operations, the following specific procedures apply:
  - a) Test start the barge pump engine before going alongside a ship;
  - b) Spot the barge alongside the ship to allow for a proper hookup to the ship's manifold; and,
  - c) Rig the mooring lines to allow for a minimal amount of surge and/or current drag.

4. Ship boarding procedures
  - a) Board via the dock gangway when available;
  - b) Use the ship's gangway, Jacob's ladder, or pilot's ladder;
  - c) Ensure that the access provided by the ship is fastened to the ship and is tended when in use; and,
  - d) A safe access must be provided by the ship. If access is judged to be unsafe, do not use it. Report the condition to the vessel captain or wheelhouse person on watch.
5. Standby-boat operating procedures
  - a) Position the boat in a location where flammable/toxic vapor will not be drawn into the boat;
  - b) The vessel captain or wheelhouse person on watch must maintain a radio watch to advise traffic in the area of the lightering operation in progress; and,
  - c) The vessel captain or wheelhouse person on watch during cargo transfer must use a handheld radio on the barge when assisting the tankerman in the start up and finishing of the cargo transfer.
6. Oil transfer procedures for loading or discharging
  - a) Conduct a pre-transfer conference discussion with the Person in Charge on the ship. This conference must include the following:
    - i) The role of the VML supervisor as the safety coordinator and transfer expediter between the ship's personnel and the barge tankerman;
    - ii) Ensure that each person involved in the transfer clearly understands the lightering procedures (fluent in English);
    - iii) Establish the cargo transfer sequence;
    - iv) Establish the transfer flow rate;
    - v) Establish the pump pressure; and,
    - vi) Establish the cargo gauging procedures.
  - b) Set up communication procedures to use during the transfer. Discuss with the PIC of the transfer on the ship the following:
    - i) Controlling the start up, rate of flow, and stopping of the transfer on the ship and on the barge.
    - ii) Emergency shutdown procedures.
  - c) Establish voice communication between the ship's Person in Charge and the VML supervisor.
    - i) The lightering representative should station himself at the cargo manifold on the ship during the startup and completion of the lightering.
    - ii) The VML representative and the tankerman in charge of the barge shall communicate by way of portable radio.
  - d) Discuss the change of watch procedure on board the ship and the barge.
  - e) Go over the Declaration of Inspection (DOI) with the ship's Person in Charge.
    - i) The ship's Person in Charge, the barge tankerman in charge, the vessel captain or wheelhouse person in charge must all agree on the DOI and sign it.
    - ii) If at any time there is a lack of understanding between the Person in Charge caused by a language barrier, do not proceed with the transfer. Report to the vessel captain or wheelhouse person on watch. They will contact the VML dispatcher, who will contact the ship's agent for clarification.
  - f) Ensure the safety of all third party personnel.

## 2.1.6 FACILITY OIL STORAGE TANKS

N/A

## **2.1.7 A DESCRIPTION OF SECONDARY CONTAINMENT AREAS**

- A. Diagrams of each vessel and description of transfer procedures for each tanker will be provided as part of the vessel spot charter packet submitted to ADEC prior to the vessel entering state waters..
- B. Area of containments for tank vessels with a capacity of 250 bbls. carrying oil or hazardous material. Under or around each loading manifold and each transfer connection point, a fixed container or enclosed deck area that, in all conditions of ship list or trim encountered during the loading operation, shall conform to 33 CFR 155.310 as follows:
- Hoses under 2" inside diameter require ½ barrel.
  - Hoses 2" but less than 4" in diameter require one barrels.
  - Hoses 4" in but less than 6" in diameter require two barrels.
  - Hoses 6" in but less than 12" in diameter require three barrels.
- C. Area of containments for offshore tank barges with a capacity of 250 bbls. carrying oil or hazardous material in addition to the above requirements, completely enclosing the cargo area, a peripheral coaming 4" high except aft corners of 8" high and extended as described in 33 CFR 155.310 (c) (1-3).

For barges with peripheral coamings, plugs must be installed in the coaming prior to commencing transfer operations.

## **2.1.8 EMERGENCY TOW AND ESCORT VESSEL PROGRAM**

Chartered tank ships must meet the requirements of all state, federal, and international laws and regulations as applicable to the vessel. Tank ships required by 33 CFR 155.235 shall have an emergency tow of the same characteristics as the primary tow wire, rigged and ready for use. For tank ships under 20,000 DWT, the ship may use its mooring arrangement. A generic emergency tow arrangement consists of synthetic rope with sufficient length and breaking strength made from lines onboard the tank ship with lighted boouy and tether attached to the deployed end with sufficient bits, cleats, stoppers, chains, chaffing gear, or winches as needed. Mooring or other lines as needed may be spooled from a selected deck winch(s). The bitter end will be passed through the bull-nose for deployment and fed out to the tow vessel. Prior to entering Alaska waters, emergency towing equipment shall be inspected and made ready for rapid deployment. A description of the tank ship specific emergency tow package on each spot charter tank ship is submitted to ADEC as part of the amendment approval process.

Spot chartered tank ships will use dedicated escort tugs while in state waters. A minimum of one tug with a minimum 1200 horsepower will be utilized to provide escort to the dock. The tug will assist the tank ship ifit losses power, steering or has an error in navigation. The escort tug(s) will be positioned relative to the tank ship such that timely response to a propulsion, steering, or navigation error can be accomplished.

The Alaska Marine Pilots will prescribe the number, size, and configuration of the tug vessel(s) needed to assist the tank ship. Their decision is based on the size and characteristics of the tank vessel (i.e. if the tank vessel has bow thrusters).

The tank ship will establish radio communications with the escort tug to coordinate a rendezvous time and location for entry into State waters. Upon entering State waters the tank ship will slow as it proceeds to the Pilot Station. Prior to reaching the Pilot Station the tank ship will reduce speed to slow maneuvering speed, approximately 5 knots. The tank ship will provide a lee for the Pilot to embark. The escort tug will follow the tank ship close astern in view of the tank ship bridge, approximately 200 yards off the port and/or starboard quarters.

At a location determined by the Pilot the escort tug will come alongside the tank ship to assist into the dock.

Upon departure the escort tug will assist the tank ship away from the dock, remaining alongside until released by the Pilot. The tank ship will proceed to the Pilot Station at a slow maneuvering speed with the escort tug following close astern. At the Pilot Station the Pilot will disembark and the tank ship will proceed to the State waters boundary line. The escort tug will follow the tank ship until it is out of State waters.

### **2.1.9 VESSEL INSPECTION AND MAINTENANCE**

VML chartered tank vessels will comply with flag state and classification society inspection and certification requirements. Inspection and certification status will be provided in the vessel's Q-88 form submitted to ADEC with the vessel specific information prior to operating in State of Alaska waters.

## **2.2 DISCHARGE HISTORY**

Vessel specific information will be provided to ADEC in the vessel's Spot Charter Package including a discharge history for the vessel.

## 2.3 ANALYSIS OF POTENTIAL OIL DISCHARGES

The worst case discharge of a VML chartered tanker would involve the total destruction of the vessel, which would result in the discharge of 200,000 BBLs of product. For the tanker to spill all of its cargo, all cargo tanks would have to be ruptured.

A worst possible RPS spill from a vessel covered under this plan is 30,000 BBLs.

### **Likely and worst-case time and frequency of spills.**

For vessels covered under this plan the Maximum Most Probable Discharge (33CFR155.1020) would be 10% of the vessels capacity, or 20,000 bbls.

The AD Little data from 1978 through 1989 shows a total of 15 non-persistent spills in Alaska, all of which exceeded 1000 gallons. Groundings account for most of the incidents. Such spills are not frequent.

The worst case damage estimates scenario as the result of a discharge from a VML operated/chartered tanker operation in Alaskan waters would be the total loss of oil cargo of a loaded tanker in a sheltered salt marsh area where dissipation and evaporation would be minimized, and the marsh flora would absorb the product making recovery difficult.

A worst case discharge during major subsistence, commercial and recreational fishing openings would impact harvesters. See Section 3.10.4 for additional information on the potential damage to environmentally sensitive areas.

The most probable situation leading to a potential oil spill exists either during oil transfer operations while in port or as a result of a tanker incident while underway such as grounding, collision or fire/explosion. Should a failure or accident of this magnitude occur, enough personnel and equipment along with a communication system and cleanup would be operational as soon as possible. First with the facility's resources, then with VML's resources, and finally augmented with the resources of Alaska Chadux Corporation as needed. If these resources were not available, or were insufficient, the State of Alaska and the United States Coast Guard would be notified and other Oil Spill Removal Organizations would be called for assistance. Alaska Chadux maintains a memorandum of agreement with other Alaska OSROs that allows for access to additional response resources if necessary.

Grounding incidents are estimated to be of low probability, but are the most likely type of an underway incident. Alaska waters provide hazardous operating conditions, although a considerable portion of any transit is through deep and clearly distinguished waters. The risk increases for those short periods of transit in narrow passages. The use of pilots and an escort tug during transits within state waters minimize this risk.

Collision with another vessel is at a lower probability than grounding. The potential of fire is extremely remote. Risk of an in-port incident would be the greatest during the transfer of petroleum. Strict adherence to the oil transfer procedures minimizes the risk of an incident. There is also a risk of an oil spill during ship-to-ship transfer operations. Again, strict adherence to the oil transfer procedures minimizes the risk.

Encounters with ice while underway or at a dock are of low probability because VML usually operates in ice free areas. However, Section 2.4 discusses areas of ice and precautions taken by VML during operations in ice conditions.

Chronic spills are spills which occur on a regular basis. VML operated/chartered tanker operations do not allow chronic spills. The only oil which routinely escapes the oil cargo system is the oil residue which is contained within the hose and within the SCA at the hose transfer/connection sites.

For practical purposes, this plan provides specific procedures for recovering potential spills caused by human error or equipment failure rather than catastrophic events. The reasonably expected modes of failure or accident in which product could be spilled from our equipment or facilities would be as follows:

1. Rupture or failure of one of the tanks.

A catastrophic spill would involve a total loss of the entire cargo of a loaded chartered tanker, most likely as the result of a grounding on rocky shorelines in rough weather where wave action would rupture all of the vessel tanks. More probable- based on history of tanker operations on the West Coast of the US, Canada and Alaska, is a severe grounding which ruptures some of the tanker's tanks. All catastrophic scenarios that destroy the integrity of all tanks depend upon the severe weather and accompanying wave action that is found along the coast.

The primary prevention programs to prevent a catastrophic discharge as the result of a grounding are listed in Section 2.1.

The maximum quantity of product discharged is based on the capacity of each tank. This quantity would vary with each vessel. (See vessel specific information contained in the Spot Charter Package for vessel & tank size)

The rate of flow would be variable depending on the size and location of the tank failure. The direction of the flow would be out into the environment.

2. Tank Over Flow

There exists a possibility for a tank to overflow from operator error.

Rate of flow: Due to the variety of vessels and fuel sources available VML, the rate of flow from the tanker could range from 350 to 3810 barrels per hour based on the potential pipeline delivery rates into tankage.

The total quantity spilled is proportional to the length of time the tank is overflowing. However, it is very unlikely that any discharge could go undetected for more than 30 seconds because all transfer operations are continuously monitored by a minimum of two persons on deck at all times. Therefore a realistic potential maximum discharge ranges from 2.9 to 32 barrels.

The tanker is equipped with peripheral coamings and is prepared by plugging the coaming scuppers prior to any fuel transfers. The spilled fuel is contained within the coaming. Coamings are described in Sections 2.1.7 and in the vessel specific information provided to ADEC in the Spot Charter Package under transfer procedures.

3. Hose Break at the Marine Header

At the marine header area there is a reasonable potential for discharge resulting from a hose failure or parting while loading/discharge is in progress.

Rate of flow: Due to the variety of vessels and sources servicing tanker under the VML plan, the rate of flow could range from 350 to 3810 barrels per hour based on the potential delivery rates into tankage. The total quantity of product that could be discharged is the same as for tank overflow.

Direction of Flow: The direction of flow of the discharged product on the water would be determined by the prevailing tides, currents and weather. See Tank Overflow above. Containment boom, which is pre-deployed around the tanker at the terminal would contain the spilled product.

4. Hose Failure from Incompatible Product Transfer.

VML only handles/transfers petroleum products as described in Section 3.1.2. All of these products are compatible with each other as far as being able to be transferred in the same hose. All transfer hose is tested and marked in accordance with 33 CFR154.500 by VML annually.

In summary, the risk of an oil spill is always present but through training and good housekeeping practices, VML strives to manage and reduce the risks inherent to its operations.

## 2.4 CONDITIONS THAT MIGHT INCREASE RISK OF DISCHARGE

Conditions that might increase the risk of discharge could result from catastrophic earthquakes, volcanic eruptions, and ice conditions.

### Pack Ice

The primary seasonal consideration in Alaskan waters which could potentially present a risk of a discharge from a vessel is the presence of pack ice.

Cape Spencer to Beaufort Sea. Ports in the Aleutian Islands and in the Gulf of Alaska, except at the upper end of Cook Inlet, are ice free and open to navigation year around. Ports north of Unimak Pass are icebound in varying degrees. Refer to page T-21 for dates of ice breakup and freeze-up in the US Coastal Pilot #9.

Except in sheltered places, the ice of the Bering Sea is in detached fields, floes and cakes, which are continually kept in motion, breaking up, piling and telescoping by the action of variable winds and currents, but never a solid sheet. The general S limit is from Bristol Bay to the vicinity of St. George Island and thence about WNW to the Siberian shore. The S edge is ragged and very much scattered. As a rule, no heavy ice will be encountered S of the Pribilof Islands which is usually detached fields.

Ice usually breaks up in the Bering Strait and Kotzebue Sound by early June. Near Pt. Hope the pack ice breaks off from shore in May and moves back and forth with the changing wind. New ice gradually gets thinner until it disappears in June. At Point Barrow the pack breaks off from the shore ice in spring and moves off and on until July moving NW. In the fall, young ice begins to form around heavy ice about mid-September, then forms in the open water, and about the first of October, the ice is in for the winter. Southbound vessels should try to clear Bering Strait by early November.

Sea ice affects only a small part of the area from the Dixon Entrance to Cape Spencer, and then only during severe winters. Because of the large tidal range, there is generally very little fast ice. Glacial ice usually appears in the form of icebergs, growlers and ice flows and is usually limited to Frederick Sound, Stephens Passage, Cross Sound and Icy Strait and occasionally an ice berg may be spotted seaward from Cape Spencer. Monthly estimates of iceberg and superstructure icing (freezing spray) hazards are published in the Pilot Charts. Refer to the US Coast Pilot.

VML traditional activities will be in ice-free areas. Actual operational times will be dependent upon seasonal ice conditions which can vary considerably. As a general rule the tankers will not be operating at times when breaking or pushing pack ice would be required. Tugs can be used to assist the vessel where ice flows are heavy, to break up the ice in front of the tanker, and to assist in docking maneuvers. As part of the normal navigational actions on the part of the Master, appropriate watch for ice will be conducted, and the vessel will be navigated to avoid contact with ice. USCG navigation restrictions, (through Captain of the Port Orders) and port specific restrictions (USCG Winter Rules) may be enacted, and the barges and tankers will comply with these restrictions to minimize risks.

Pack ice has the potential to impact vessel operations in the following ways:

- Fouling vessel propellers, restricting propulsion and maneuverability
- Prevent maneuverability and ability to make way.

Procedures to be taken by the vessel to respond to pack ice conditions are detailed in the VML Operational Checklist / Pack Ice Precautions. See below.

<b>OPERATIONAL CHECKLIST / PACK ICE PRECAUTIONS</b>	
1.	<b>When commencing a voyage through waters where pack ice is present, or conditions which may result in pack ice forming in the waters which will be transited by the tanker; the Master will take the following precautions as appropriate:</b>
	<ul style="list-style-type: none"> <li>• Ensure that the most current USCG Navigational Advisory for Ice Conditions from the MSO in each COTP which will be transited are onboard the vessel</li> <li>• Review the USCG Navigational Advisory with all watchstanders</li> <li>• Review all current Notice To Mariner bulletins and Advisories, and review the planned route of the voyage to determine the potential area of transit where pack ice is likely to be present</li> <li>• Obtain current regional ice location information. Sources of that information are available from the VML dispatcher (See Sec 1.4)</li> <li>• Obtain on scene reports from vessels operating in anticipated or reported areas of pack ice</li> <li>• Assess the need for, and arrange for aerial support for piloting and visual support from Operations Center as part of voyage planning process. <i>Based on the Master's discretion, aerial support will be used for operations in pack ice conditions as needed. See Section 3.5.</i></li> </ul>
2.	<b>When operating a tanker in pack ice conditions, the following precautions will be taken as appropriate as determined by the Master:</b>
	<ul style="list-style-type: none"> <li>• Additional lookouts may be posted as required</li> <li>• Frequency of positions checks may need to be increased to identify' effects of pack ice movement on vessel course and speed</li> </ul>
3.	<b>Prior to making fast at a dock where pack ice is present, or may become present during the duration of the port call;</b>
	<ul style="list-style-type: none"> <li>• Establish conditions at the dock facility, <ol style="list-style-type: none"> <li>1. Conditions of ice (increasing, breaking up, flushing in and out with tide changes)</li> <li>2. Tide and current conditions</li> <li>3. Weather and sea conditions</li> <li>4. Availability of assist tugs</li> </ol> </li> <li>• Request assist tug as appropriate</li> <li>• Monitor ice conditions during the port call on an hourly basis</li> </ul>
4.	<b>If pack ice conditions prevent safe operations of the vessels:</b>
	<ul style="list-style-type: none"> <li>• The Master will take appropriate action to move the vessel to ice free waters</li> <li>• The Master will contact the VML Vessel Operations Center and advise them of the conditions of the vessel, actions planned and status of ice conditions in the vessel's planned routes and ports of call</li> </ul>

## Geologic Hazards

### Volcanoes

Active and dormant volcanoes are present along the coast of Alaska. Volcanic eruptions have the potential to impact vessel operations. Cook Inlet, the Alaska Peninsula and the Aleutian chain are part of the "Pacific ring-of-fire" and are susceptible to volcanic activity. Andesitic volcanoes exist from the top of Kodiak Island through Cook Inlet on the west side, including Augustine, Iliamna, Redoubt, and Spur, all of which have been active within the last 20 years. Volcanic activity can range from minor steam plumes to ash plumes to pyroclastic flows. During periods of volcanic eruptions, the Master must conform to any USCG navigational orders.

Potential impacts of volcanic eruptions may impact vessel operations in the following ways:

- Ash and debris may reduce visibility, and foul or damage combustion engines when ash and debris enter engine air intakes
- Eruptions may result in mud or lava flows that may restrict waterways or produce tsunamis

Special Operating Procedures for vessels in the vicinity of volcanic activity:

- Alter course and voyage to avoid airborne ash and debris.
- Secure transfer operations and personnel seek shelter when airborne ash and debris impacts safety or equipment.
- Evaluate PPE requirements before resuming operations.
- Inspect and service equipment as needed before resuming operations.
- Monitor all applicable NOAA weather advisories and all USCG Notice to Mariner broadcast and bulletins.

#### Seismic Conditions

All Alaskan coastal waters are active seismic zones, and both terrestrial and sub sea earthquakes are common throughout the Alaskan coastal areas. Tsunamis are also generated by seismic events in these areas.

#### Potential impacts of Seismic Conditions

Tsunamis created by seismic events create navigational hazards and may create dangerous conditions in bays, passes and restricted bodies of water.

#### Provisions to accommodate geologic conditions

- The vessel will monitor all applicable NOAA weather advisories, and all USCG Notice To Mariner broadcasts and bulletins for information on tsunami warnings.

#### **AT PORT:**

- Should a strong earthquake occur, transfer operations would be immediately terminated.
- Take appropriate action, usually departing the dock to move to deeper water.
- If unable to get underway before predicted tsunami is scheduled to arrive, secure the vessel and evacuate personnel to higher ground.
- Master would maintain contact with the dock watch (if in port)
- Severe weather plans for certain ports are included in the Appendix.

#### **UNDERWAY:**

- Tsunamis are not a concern for a vessel underway in open waters. However, if the vessel is in a delta region, the vessel will change course if necessary and proceed to deeper water in the event a tsunami warning is received.

#### Reduced Visibility

Use of Radar. Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists. Proper use shall be made of radar equipment to obtain early warning of risk of collision. Vessels equipped and manned to use radar are required to use radar while underway during periods of reduced visibility including darkness in addition to normal precautionary measures.

#### Season limitations on areas of operations

VML operated/chartered tankers will operate in compliance with USCG navigation rules and regulations, and any special Captain of the Port rules.

#### Navigation Hazards

Narrow Channels

VML chartered tanker operations are performed in areas that contain narrow channels and limit maneuverability of the vessel. To reduce potential risks associated with transiting narrow channels VML chartered tankers may reduce speed, utilize a bow watch, or an assist vessel ahead to provide guidance.

## Rocks

VML operates in areas that contain submerged rocks. To reduce the risk of striking a submerged rock, VML will utilize depth sounders to monitor water depth. The use of a bow watch or an assist vessel may be utilized to assist in guiding the vessel through these waters.

## Western Alaska

Typically, all of the major coastal ports north and west of Dutch Harbor and Akutan are not navigable based on the presence of pack ice from late November to April.

## Risk Assessment

VML is subject to a certain level of risk simply by transporting petroleum products with vessels. This section examines the various components of risk, and therefore better prepares company personnel to identify what levels of response capability are required. The act of transporting oil by sea implies that petroleum will be transferred to and from the tanker, the tanker will transit upon navigable waters, and for periods of time petroleum will be stored aboard the tanker awaiting transfer.

The tankers operate on the waters of Alaska as described in [Section 3.1.1](#). The tankers can operate 24 hours per day in order to meet the schedule requirements of refineries, storage terminals, and vessels in the region. This includes the receiving or discharging of petroleum at a shore facility as well as transiting the waters of Alaska. The transfers all conform to federal and state requirements, which are identified in the Declaration of Inspection completed prior to the transfer.

Unintentional vessel grounding, though estimated at very low probability, is the most likely type of an underway incident. The risk increases for those short duration's of transit in narrow passages or in shallow waters. These more difficult portions of the voyage are undertaken only during reasonable water and weather conditions.

Collision of a VML chartered tanker with another vessel is always a possibility. There are periods of high fishing vessel activity on some of the major routes. This influence of smaller traffic further lowers the probability that a collision of the tanker would result in extensive hull damage. A possible outcome of any collision even if the vessel is not initially damaged could be the disabling of the vessel with an eventual grounding.

The potential of fire starting aboard a tanker is remote. The potential for a fire starting on a PFA chartered tank vessel is greater than that of a tank barge. A fire starting in the machinery or accommodation spaces would be unlikely to result in a loss of cargo. The increase risk of fire onboard PFA Chartered Tankers is reduced by increased fire suppression systems, personnel training, and shipboard policies. This information will be submitted with the Spot Charter Packet.

Risk of an in-port incident would be greatest during the discharge of petroleum. Strict adherence to the Oil Transfer Procedures minimizes the risk of an incident. In the event of a mechanical failure resulting in overfilling of a tank, the potential quantity of oil spilled is far less than with grounding or collision. Immediate clean-up action would be taken to contain and recover the oil.

Continued vigilance is practiced by all VML navigation personnel to minimize the risk of any incident. Past successful operating records of the VML crews demonstrate their high level of expertise which contributes to reduce the risk of an incident or accident. All VML personnel are trained and appropriately licensed for their positions as required by law.

## **Risk Reduction**

Methods to reduce risks during navigation and transfer operations are performed by vessel personnel as per the Oil Transfer Procedures (See Section 2.1.5), and Training (See Section 2.1.1).

Ice, volcanic, seismic and other hazards	<u>Section 2.4</u>
Training:	<u>Section 2.1.1</u>
Transfer procedures	<u>Sections 2.1.5 and Vessel Spot Charter Packet</u>
Tanker operations prevention programs	<u>Section 2.1</u>
Vessel inspection and maintenance programs	<u>Section 2.1.9</u>

## **Damage Control**

Damage control of a ruptured fuel/cargo tank would involve a transfer of fuel into other fuel tanks (on a space available basis); and/or voids on an emergency basis. VML utilizes marine architects under contract who have access to stability information for damage control purposes. See section 1.2.4.1 for stability data and vessel diagrams provided with the Vessel Spot Charter Packet.

## **Structural integrity**

The tankers have ample structural integrity for the petroleum trade as documented by the Certificate of Inspection.

## **General Risks in Alaskan waters**

The greatest risk of discharges from tank vessels occurs during product transfers, based upon historical information on spills. VML has implemented transfer procedures as described in Section 2.1.5 to prevent spills of this nature from occurring.

## **Sabotage and Vandalism**

Historically, sabotage and vandalism have not been problems for tanker operations in Alaskan waters and ports. However, it is the policy of VML that when possible, tankers are berthed at secure dock facilities which have limited access and existing security facilities. In instances where a reasonable level of security for the vessel is not available, a manned watch of the vessel will be maintained during port calls. A manned watch will be maintained on all anchored or buoy-moored tankers.

## 2.5 EXISTING AND PROPOSED DISCHARGE DETECTION

As fuel moves through the VML transportation system there are regular and periodic checks made to ensure there are no leaks.

As fuel is transferred to or from vessel tanks, the persons in charge monitors the hoses, pumps, and pipelines, shore tanks, and headers. Routine visual inspections before, during and after each transfer are made. Pumps are equipped with pressure gauges. Company policy dictates transfer operations will be shut down if there is any unexplained surge or drop in pressure. The pressure drop could indicate a leak while a surge in pressure could cause a leak. See Section 2.1.5.

Vessel tanks are gauged before and after fuel transfers. All VML chartered tankers required to have cargo tank high level indicators will be so equipped. These indicators are designed to allow the Tankerman/PIC to visually gauge when tanks are approaching their safe fill levels. The vessel crew ensures fuel is not leaking from the cargo tanks by visually inspecting waters surrounding the tanker.

VML policy requires routine security rounds be conducted while underway, moored or anchored, weather and safety conditions permitting. Included in the security round activity is an over the side visual observation to look for signs of oil spill and that the barge or tank vessel shows no signs of cargo shifting or loss. During periods of darkness and intense fog, vessel deck lighting will be used to illuminate the area surrounding the vessel. Personnel conducting the security rounds will also have an intrinsically safe flashlight of sufficient power to allow visual inspection of the water near the vessel.

Tanks are sounded with sounding tapes using water paste to detect if water is present indicating water intrusion from a hole in a tank, or after any grounding, collision, unintentional beaching and the first point of transfer after severe sea conditions or any other extreme condition as considered appropriate by the master if safety allows.

## **2.6 EXCEPTIONS APPLIED TO THE RESPONSE PLANNING STANDARD**

N/A VML is not a Terminal Facility – no exceptions

## 2.7 COMPLIANCE SCHEDULE AND WAIVERS

VML is a signatory to the Agreement for Final Compliance dated December, 2009, with other non-persistent tank vessel operators and the US Coast Guard as an alternative compliance to the planning standards for the Western Alaska Captain of the Port Zone.

### Figure 2.7-1

#### APD&T Certification

##### 9.1 ATTACHMENT 1 -- CERTIFICATION OF ACCEPTANCE OF AGREEMENT

We, the undersigned OPERATOR, hereby accept and agree to be bound by the terms of this Agreement for Compliance for Tank Barge Transport of Non-Persistent Oil in Alaska. We also accept and agree to be bound by all attachments, enclosures, references, or other instruments that may be legally subscribed to this Agreement.

Company Name: Vitus Marine LLC

Authorized Signature: Justin Charon

Printed Name/Title of Signer: Justin Charon CFO

Date: 3-7-11

VITUS MARINE, LLC.

CHARTERED TANKER ADDITIONAL INFORMATION, PART III

Document Control Sheet

Originators: Mark Smith

<i>Approved by Dept.</i>	<i>Name</i>	<i>Signature</i>	<i>Date</i>
Vessel Ops.	Mark Smith		

Change Record

<i>Revision#</i>	<i>Date</i>	<i>Approved by</i>	<i>Description of Change</i>

Distribution List

Vessel C-Plan  
Anchorage Environmental Department  
Anchorage Office  
ADEC  
ADF&G  
ADNR  
CRSAs

Special Instructions

## 3.1 VESSEL DESCRIPTION AND OPERATIONAL OVERVIEW

### 3.1.1 AREAS OF OPERATION

For each tank vessel to be chartered by Vitus Marine, VML will obtain and submit to the ADEC the required vessel specific information, as presented in the following subsections, as part of the request for approval and Spot Charter Tanker Packet. Minimum specifications for each vessel that will also be obtained and submitted to ADEC are those listed in the standard INTERTANKO Q-88 (See Figure 3.1-1).

In addition to the INTERTANKO Q-88, VML will submit the following information to the ADEC:

- Designation of the Qualified Individual for the Vessel.
- Schedule of Vessel Inspections and date of last inspection.
- Vessel Diagrams.
- Other unusual or special vessel configuration or equipment (i.e bow thrusters, ice class hull, etc.)
- Verification that the vessel operator has a copy of VML's substance abuse and medical monitoring program and that vessel specific program meets or exceeds these standards.
- Verification that the vessel has and will carry a copy of VML's OSCP and will post a copy of the ADEC Spill Reporting Placards on the vessel.
- Verification that the vessel will have a fire plan on board the vessel that meets or exceeds the VML OSCP.
- Verification that the vessel inspection program meets or exceeds standards represented in the VML OSCP.
- Verification that the vessel is, under no circumstances, to discharge oily wastes or transfer oily wastes to any facility while in Alaska waters.
- Verification that an English speaking vessel Master or interpreter will be present on the bridge while transiting in state waters.
- Identification of key personnel, i.e. Vessel Security Officer, Pollution Prevention Officer.
- List of oil spills from vessels that have been 55 gallons or greater in size.
- Description of the emergency towing system on board the vessel and verification that it meets SOLAS standards.
- Hull Type

**Figure 3.1-1  
INTERTANKO STANDARD TANKER Q-88 FORM**

INTERTANKO'S STANDARD TANKER CHARTERING QUESTIONNAIRE 88 (Q88)		Version 3	
<b>1.</b>	<b>VESSEL DESCRIPTION</b>		
1.1	Date updated:		
1.2	Vessel's name:		
1.3	IMO number:		
1.4	Vessel's previous name(s) and date(s) of change:		
1.5	Date delivered:		
1.6	Builder (where built):		
1.7	Flag:		
1.8	Port of Registry:		
1.9	Call sign:		
1.10	Vessel's satcom phone number:		
	Vessel's fax number:		
	Vessel's telex number:		
	Vessel's email address:		
1.11	Type of vessel:		
1.12	Type of hull:		
<b>Classification</b>			
1.13	Classification society:		
1.14	Class notation:		
1.15	If Classification society changed, name of previous society:		
1.16	If Classification society changed, date of change:		
1.17	IMO type, if applicable:		
1.18	Does the vessel have ice class? If yes, state what level:		
1.19	Date / place of last dry-dock:		
1.20	Date next dry dock due		
1.21	Date of last special survey / next survey due:		
1.22	Date of last annual survey:		
1.23	If ship has Condition Assessment Program (CAP), what is the latest overall rating:		
1.24	Does the vessel have a statement of compliance issued under the provisions of the Condition Assessment Scheme (CAS): If yes, what is the expiry date?		
<b>Dimensions</b>			
1.25	Length Over All (LOA):		
1.26	Length Between Perpendiculars (LBP):		
1.27	Extreme breadth (Beam):		
1.28	Moulded depth:		
1.29	Keel to Masthead (KTM) / KTM in collapsed condition (if applicable):		
1.30	Bow to Center Manifold (BCM) / Stern to Center Manifold (SCM):		
1.31	Distance bridge front to center of manifold:		
1.32	Parallel body distances:	Lightship	Normal Ballast
	Forward to mid-point manifold:		
	Aft to mid-point manifold:		
	Parallel body length:		
1.33	FWA at summer draft/ TPC immersion at summer draft:		
1.34	What is the max height of mast above waterline (air draft)	Full Mast	Collapsed Mast
	Lightship:		
	Normal ballast:		
	At loaded summer deadweight:		
<b>Tonnages</b>			
1.35	Net Tonnage:		
1.36	Gross Tonnage / Reduced Gross Tonnage (if applicable):		
1.37	Suez Canal Tonnage - Gross (SCGT) / Net (SCNT):		

**INTERTANKO'S STANDARD TANKER CHARTERING QUESTIONNAIRE 88 (Q88)**

1.38	Panama Canal Net Tonnage (PCNT):				
<b>Load line Information</b>					
1.39	Loadline	Freeboard	Draft	Deadweight	Displacement
	Summer:				
	Winter:				
	Tropical:				
	Lightship:				
	Normal Ballast Condition:				
1.40	Does vessel have multiple SDWT?				
1.41	If yes, what is the maximum assigned deadweight?				
<b>Ownership and Operation</b>					
1.42	Registered owner - Full style:				
1.43	Technical operator - Full style:				
1.44	Commercial operator - Full style:				
1.45	Disponent owner - Full style:				

2.	CERTIFICATION	Issued	Last Annual or Intermediate	Expires
2.1	Safety Equipment Certificate:			
2.2	Safety Radio Certificate:			
2.3	Safety Construction Certificate:			
2.4	Loadline Certificate:			
2.5	International Oil Pollution Prevention Certificate (IOPPC):			
2.6	Safety Management Certificate (SMC):			
2.7	Document of Compliance (DOC):			
2.8	USCG (specify: C-OC, LOC or COI):			
2.9	Civil Liability Convention Certificate (CLC):			
2.10	Civil Liability for Bunker Oil Pollution Damage Convention Certificate (CLBC):			
2.11	U.S. Certificate of Financial Responsibility (COFR):			
2.12	Certificate of Fitness (Chemicals):			
2.13	Certificate of Fitness (Gas):			
2.14	Certificate of Class:			

**INTERTANKO'S STANDARD TANKER CHARTERING QUESTIONNAIRE 88 (Q88)**

2.15	International Ship Security Certificate (ISSC):			
2.16	International Sewage Pollution Prevention Certificate (ISPPC)			
2.17	International Air Pollution Prevention Certificate (IAPP):			
<b>Documentation</b>				
2.18	Does vessel have all updated publications as listed in the Vessel Inspection Questionnaire, Chapter 2- Question 2.24, as applicable:			
2.19	Owner warrant that vessel is member of ITOFF and will remain so for the entire duration of this voyage/contract:			

<b>3.</b>	<b>CREW MANAGEMENT</b>			
3.1	Nationality of Master:			
3.2	Nationality of Officers:			
3.3	Nationality of Crew:			
3.4	If Officers/Crew employed by a Manning Agency - Full style:			
3.5	What is the common working language onboard:			
3.6	Do officers speak and understand English:			
3.7	In case of Flag Of Convenience, is the ITF Special Agreement on board:			

<b>4.</b>	<b>HELICOPTERS</b>			
4.1	Can the ship comply with the ICS Helicopter Guidelines:			
4.2	If Yes, state whether winching or landing area provided:			

<b>5.</b>	<b>FOR USA CALLS</b>			
5.1	Has the vessel Operator submitted a Vessel Spill Response Plan to the US Coast Guard which has been approved by official USCG letter:			
5.2	Qualified individual (QI) - Full style:			
5.3	Oil Spill Response Organization (OSRO) -Full style:			
5.4	Has technical operator signed the SCIA / C-TPAT agreement with US customs concerning drug smuggling:			

<b>6.</b>	<b>CARGO AND BALLAST HANDLING</b>			
<b>Double Hull Vessels</b>				
6.1	Is vessel fitted with centerline bulkhead in all cargo tanks:			
6.2	If Yes, is bulkhead solid or perforated:			
<b>Cargo Tank Capacities</b>				
6.3	Capacity (98%) of each natural segregation with double valve (specify tanks):			

INTERTANKO'S STANDARD TANKER CHARTERING QUESTIONNAIRE 88 (Q88)

6.4	Total cubic capacity (98%, excluding slop tanks):		
6.5	Slop tank(s) capacity (98%):		
6.6	Residual/Retention oil tank(s) capacity (98%), if applicable:		
6.7	Does vessel have Segregated Ballast Tanks (SBT) or Clean Ballast Tanks (CBT):		
<b>SBT Vessels</b>			
6.8	What is total capacity of SBT?		
6.9	What percentage of SDWT can vessel maintain with SBT only:		
6.10	Does vessel meet the requirements of MARPOL Annex I Reg 18.2: (previously Reg 13.2)		
<b>Cargo Handling</b>			
6.11	How many grades/products can vessel load/discharge with double valve segregation:		
6.12	Maximum loading rate for homogenous cargo per manifold connection:		
6.13	Maximum loading rate for homogenous cargo loaded simultaneously through all manifolds:		
6.14	Are there any cargo tank filling restrictions. If yes, please specify:		
<b>Pumping Systems</b>			
6.15	Pumps:	No.	Type
	Cargo:		Capacity
	Stripping:		
	Eductors:		
	Ballast:		
6.16	How many cargo pumps can be run simultaneously at full capacity:		
<b>Cargo Control Room</b>			
6.17	Is ship fitted with a Cargo Control Room (CCR):		
6.18	Can tank innage / ullage be read from the CCR:		
<b>Gauging and Sampling</b>			
6.19	Can ship operate under closed conditions in accordance with ISGOTT:		
6.20	What type of fixed closed tank gauging system is fitted:		
6.21	Are overfill (high-high) alarms fitted? If Yes, indicate whether to all tanks or partial:		
<b>Vapor Emission Control</b>			
6.22	Is a vapor return system (VRS) fitted:		
6.23	Number/size of VRS manifolds (per side):		
<b>Venting</b>			
6.24	State what type of venting system is fitted:		
<b>Cargo Manifolds</b>			
6.25	Does vessel comply with the latest edition of the OCIMF 'Recommendations for Oil Tanker Manifolds and Associated Equipment':		
6.26	What is the number of cargo connections per side:		
6.27	What is the size of cargo connections:		
6.28	What is the material of the manifold:		
<b>Manifold Arrangement</b>			
6.29	Distance between cargo manifold centers:		
6.30	Distance ships rail to manifold:		
6.31	Distance manifold to ships side:		
6.32	Top of rail to center of manifold:		

**INTERTANKO'S STANDARD TANKER CHARTERING QUESTIONNAIRE 88 (Q88)**

6.33	Distance main deck to center of manifold:	
6.34	Manifold height above the waterline in normal ballast / at SDWT condition:	
6.35	Number / size reducers:	
<b>Stern Manifold</b>		
6.36	Is vessel fitted with a stern manifold:	
6.37	If stern manifold fitted, state size:	
<b>Cargo Heating</b>		
6.38	Type of cargo heating system?	
6.39	If fitted, are all tanks coiled?	
6.40	If fitted, what is the material of the heating coils:	
6.41	Maximum temperature cargo can be loaded/maintained:	
<b>Tank Coating</b>		
6.42	Are cargo, ballast and slop tanks coated?	Coated
		Type
		To What Extent
	Cargo tanks:	
	Ballast tanks:	
	Slop tanks:	
6.43	If fitted, what type of anodes are used:	

<b>7.</b>	<b>INERT GAS AND CRUDE OIL WASHING</b>
7.1	Is an Inert Gas System (IGS) fitted:
7.2	Is IGS supplied by flue gas, inert gas (IG) generator and/or nitrogen:
7.3	Is a Crude Oil Washing (COW) installation fitted:

<b>8.</b>	<b>MOORING</b>					
8.1	Mooring wires (on drums)	No.	Diameter	Material	Length	Breaking Strength
	Forecastle:					
	Main deck fwd:					
	Main deck aft:					
	Poop deck:					
8.2	Wire tails	No.	Diameter	Material	Length	Breaking Strength
	Forecastle:					
	Main deck fwd:					
	Main deck aft:					
	Poop deck:					
8.3	Mooring ropes (on drums)	No.	Diameter	Material	Length	Breaking Strength
	Forecastle:					
	Main deck fwd:					
	Main deck aft:					
	Poop deck:					
8.4	Other mooring lines	No.	Diameter	Material	Length	Breaking Strength
	Forecastle:					
	Main deck fwd:					
	Main deck aft:					
	Poop deck:					
8.5	Mooring winches	No.			# Drums	Brake Capacity
	Forecastle:					

INTERTANKO'S STANDARD TANKER CHARTERING QUESTIONNAIRE 88 (Q88)

	Main deck fwd:		
	Main deck aft:		
	Poop deck:		
8.6	Mooring bitts	No.	SWL
	Forecastle:		
	Main deck fwd:		
	Main deck aft:		
	Poop deck:		
8.7	Closed chocks and/or fairleads of enclosed type	No.	SWL
	Forecastle:		
	Main deck fwd:		
	Main deck aft:		
	Poop deck:		
<b>Emergency Towing System</b>			
8.8	Type / SWL of Emergency Towing system forward:		
8.9	Type / SWL of Emergency Towing system aft:		
<b>Anchors</b>			
8.10	Number of shackles on port cable:		
8.11	Number of shackles on starboard cable:		
<b>Escort Tug</b>			
8.12	What is SWL and size of closed chock and/or fairleads of enclosed type on stern:		
8.13	What is SWL of bollard on poopdeck suitable for escort tug:		
<b>Bow/Stern Thruster</b>			
8.14	What is brake horse power of bow thruster (if fitted):		
8.15	What is brake horse power of stern thruster (if fitted):		
<b>Single Point Mooring (SPM) Equipment</b>			
8.16	Does vessel comply with the latest edition of OCIMF 'Recommendations for Equipment Employed in the Mooring of Vessels at Single Point Moorings (SPM):		
8.17	Is vessel fitted with chain stopper(s):		
8.18	How many chain stopper(s) are fitted:		
8.19	State type of chain stopper(s) fitted:		
8.20	Safe Working Load (SWL) of chain stopper(s):		
8.21	What is the maximum size chain diameter the bow stopper(s) can handle:		
8.22	Distance between the bow fairlead and chain stopper/bracket:		
8.23	Is bow chock and/or fairlead of enclosed type of OCIMF recommended size (600mm x 450mm)? If not, give details of size:		
<b>Lifting Equipment</b>			
8.24	Derrick / Crane description (Number, SWL and location):		
8.25	What is maximum outreach of cranes / derricks outboard of the ship's side:		
<b>Ship To Ship Transfer (STS)</b>			
8.26	Does vessel comply with recommendations contained in OCIMF/ICS Ship To Ship Transfer Guide (Petroleum or Liquefied Gas, as applicable):		
<b>9. MISCELLANEOUS</b>			
<b>Engine Room</b>			
9.1	What type of fuel is used for main propulsion?		
9.2	What type of fuel is used in the generating plant?		
9.3	Capacity of bunker tanks - IFO and MDO/MGO:		
9.4	Is vessel fitted with fixed or controllable pitch propeller(s)?		
<b>Insurance</b>			
9.5	P & I Club - Full Style:		

INTERTANKO'S STANDARD TANKER CHARTERING QUESTIONNAIRE 88 (Q88)

9.6	P & I Club coverage - pollution liability coverage:	
<b>Port State Control</b>		
9.7	Date and place of last Port State Control inspection:	
9.8	Any outstanding deficiencies as reported by any Port State Control:	
9.9	If yes, provide details:	
<b>Recent Operational History</b>		
9.10	Has vessel been involved in a pollution, grounding, serious casualty or collision incident during the past 12 months? If yes, full description:	
9.11	Last three cargoes / charterers / voyages (Last / 2nd Last / 3rd Last):	
<b>Vetting</b>		
9.12	Date/Place of last SIRE inspection:	
9.13	Date/Place of last CDI inspection:	
9.14	Recent Oil company inspections/screenings (To the best of owners knowledge and without guarantee of acceptance for future business)*: * Blanket "approvals" are no longer given by Oil Majors and ships are accepted for the voyage on a case by case basis.	

Version 3 ([www.intertanko.com](http://www.intertanko.com) / [Q88.com](http://www.q88.com))

**Figure 3.1-2**  
**CHARTER VESSEL REQUIREMENTS**  
**VITUS MARINE,LLC.**

The following requirements are applicable to all VML chartered petroleum tank vessels that transport bulk refined petroleum products. These requirements result from state and federal regulations as well as VML policy.

If there are any questions regarding these requirements, please contact:

Mr. Mark Smith  
Vitus Marine, LLC  
113 W. Norther Lights Blvd., Ste. 200  
Anchorage, AK 99503 USA  
Telephone: 907-278-6700  
Cell phone: 907-351-9745  
Facsimile: 907-278-6701  
Email: marks@vitusmarine.com

## **ATTACHMENTS**

### 1. Copy of the Vitus Marine Chartered Tanker Operations Oil Discharge Prevention and Contingency Plan.

Vessel operators are required to read, understand, and comply with all provisions of this plan. The attached copy of this plan **MUST** be on board of the tank vessel prior to entering into state waters (three mile limit). In particular, operators are encouraged to carefully review the following sections:

- Section 1.1 – Emergency Action Checklist. This Section provides a list of immediate actions that should be taken in the event of an oil spill from your vessel. You will note that the actions to be taken in the event of a spill in open waters differ from that of a spill at the dockside.
- Section 1.2 – Reporting and Notifications. This section describes the reporting and notification requirements in the event of an oil spill including contact information.
- Section 2.1 Prevention Programs in Place. This section describes oil spill prevention measures that are required.
- Section 2.5 Discharge Detection Systems. This section describes minimum oil discharge detection systems that must be employed during tank vessel operations.
- Section 3.1 – Vessel Description and Operational Overview. This section describes the information that must be provided to the Alaska Department of Environmental Conservation as well as selected minimum standards for tank vessels.

### 2. State of Alaska Spill Reporting Placards.

One copy of these placards **MUST** be posted in a conspicuous location on board the tank vessel.

**INFORMATION AND DATA REQUIRED**

The following information and data is required to be provided to VML for each chartered vessel:

**Name of Qualified Individual:**  
Company Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
Emergency Contact Information: \_\_\_\_\_

**Certification of Substance Abuse and Medical Monitoring Program:** All crewmembers involved with navigation, spill prevention, or spill response are enlisted in a Substance Abuse and Medical Monitoring Program by the tank vessel company that complies with the Vitus Marine, LLC Oil Discharge Prevention and Contingency Plan (See Sections 2.1.2 and 2.1.3 of this Plan). The program requires that tank vessel operational personnel undergo a medical examination prior to employment to verify that all personnel are medically fit to perform their prescribed duties. Crewmembers are subjected to random, unannounced substance abuse testing. All crewmembers are subject to substance abuse testing in accordance with USCG regulations including 33 CFR Section 16.240.

\_\_\_\_\_  
Company Authorized Company Representative Date

**Certification of On-Board Copy of Vitus Marine Chartered Tanker Operations Oil Discharge Prevention and Contingency Plan:** A copy of the VML Oil Discharge Prevention and Contingency Plan, April, 2011, has been provided to the tank vessel company and will be placed on board the chartered tank vessel prior to entering and while operating in State of Alaska Waters. Tank Vessel Officers have reviewed the provisions and requirements of this plan and understand the spill notification, response operations, and prevention procedures listed within.

\_\_\_\_\_  
Company Authorized Company Representative Date

**Certification of On-Board Copy of Alaska Department of Environmental Conservation's Discharge Reporting Placards:** A copy of the Alaska Department of Environmental Conservation's Discharge Reporting Placards has been provided to the tank vessel company and will be posted on board the chartered tank vessel prior to entering and while operating in State of Alaska Waters.

\_\_\_\_\_  
Company Authorized Company Representative Date

**Certification of Fire Plan:** Chartered vessels maintain a fire plan that is meets or exceeds VML requirements (See Section 1.6.2 of the VML Oil Discharge Prevention and Contingency Plan) and a copy of this plan will be onboard the chartered vessel prior to entering State of Alaska waters.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Authorized Company Representative

\_\_\_\_\_  
Date

**Certification of Established Methods to Stop a Discharge of Oil from the Chartered Vessel:** Chartered vessels maintain a vessel specific plan for stopping the discharge of oil from the vessel in the event of grounding or other accidents and incidents.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Authorized Company Representative

\_\_\_\_\_  
Date

**Certification of Vessel Inspection Program:** Chartered vessels undergo inspections that comply with United States Coast Guard, SOLAS requirements, and provisions established in the VML Oil Discharge Prevention and Contingency Plan. Chartered vessel owner must provide a detailed list of inspections (including the type of inspection and last date of inspection) to Vitus Marine, LLC.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Authorized Company Representative

\_\_\_\_\_  
Date

**Certification of Oily Wastes Management:** The charter vessel owner certifies that oil wastes, including but not limited to slops and bilge oils, will not be discharge to State of Alaska waters nor transferred to shore side facility locations while at Alaska ports. Storage locations on board the chartered vessels (slop tanks and other storage areas) have been identified on the submitted vessel diagrams.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Authorized Company Representative

\_\_\_\_\_  
Date

**Certification of English Speaking Master:** The charter vessel owner certifies that while the vessel is laden with oil and underway in State of Alaska waters, or during the transfer of oil at the facility, the Master of the vessel will be fluent in the English language or will be accompanied by a person who is fluent in the Master's language and the English language.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Authorized Company Representative

\_\_\_\_\_  
Date

**Certification of Emergency Towing Package:** An emergency towing system is onboard the charter vessel which meets or exceeds SOLAS standards, a description of which will be provided to VML.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Authorized Representative

\_\_\_\_\_  
Date

**Name of Oil Spill Prevention and Response Officer:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

Emergency Contact Information: \_\_\_\_\_

**Name of Tank Vessel Security Officer:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

Emergency Contact Information: \_\_\_\_\_

**Certification of Air Monitoring Equipment:** A portable air monitoring instrument capable of measuring the level of flammable vapors (LEL) and percent oxygen (O2) in the air is onboard the charter vessel.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Authorized Company Representative

\_\_\_\_\_  
Date



### 3.1.2 TYPE AND AMOUNT OF OIL FOR STORAGE CONTAINERS

VML chartered tankers are certified to carry Grade B or lower oil products. These products are classified as "Group I Non Persistent Oils" (reference 33 CFR 155.1020) and "non crude oil" (reference 18 AAC 75.900(34)). Generic names include:

- Diesel # 1
- Diesel # 2
- regular diesel
- kerosene
- unleaded, and aviation gasoline
- Arctic Diesel
- marine diesel
- turbine fuel
- jet fuels

Specific information on cargoes and applicable safety information is maintained in the tanker specific Oil Transfer Procedures and Material Safety Data Sheets (MSDS). Copies are onboard the vessel.

### 3.1.3 VESSEL ROUTES

All vessel schedules are approximate. VML will serve any customer that requests service at any location within its operational area based on conditions appropriate for the vessel serving the area.

Chartered tank vessels will transit from the Far East via a route north of the Aleutian Islands. For all tank vessels, the route north of the Aleutian Islands shall be no less than 12 nautical miles (outside of the 12 mile contiguous zone). Prior to entering the 12-mile contiguous zone, chartered vessels will contact the VML Operations Manager to determine readiness of the marine pilot and escort tug.

#### Nome

Vessels will approach from the SSW to a point 3 nm from Nome. Tanker will pick up the pilot and escort tug will establish tow connection and escort the vessel the remainder of the way into port.

#### Port Clarence

Vessels will approach Port Clarence from the West to a point at least 3 nm from the entrance. Tanker will pick up pilot and escort tug at this location before proceeding into Port Clarence.

#### Bristol Bay

Vessels will approach Nushagak Bay from the SSE to the pilot station located at the bay entrance (State waters). Tanker will pick up pilot and escort tug will establish tow connection and escort the vessel the remainder of the way into Dillingham.

#### Aleutians

Aleutian voyages will originate from the Alaska Peninsula area out to Unalaska. The vessel may serve any community on the northern side of the Alaska Peninsula and Aleutian Island Chain.

#### Cook Inlet

Vessels enroute to the Port of Seward will approach the pilot stations in Resurrection Bay from the SW, the tanker will pick up the pilot and escort tug and continue on to Seward. Vessels enroute to Nikiski will enter Cook Inlet from Kennedy Entrance and proceed to the Homer pilot station or agreed upon pick up point at the entrance to Kachemak Bay. The tanker will pick up the pilot and escort tug before proceeding north in Cook Inlet.

See Figures 3.1-1 thru 3.1-7 for maps with routes depicted.

### **3.1.4 VESSEL PLANS AND DIAGRAMS**

All vessel plans, diagrams, transfer procedures and vessel information are provided with the Spot Charter Packet.

### **3.1.5 TRANSFER PROCEDURES**

Vessel transfer procedures are included in Section 2.1.5.

### **3.1.6 DISPOSAL OF OILY WASTE FOR VESSELS**

**For VML chartered tank vessels, oily wastes that may be generated and stored on-board the vessel in slop tanks, other tanks, or containers will remain onboard the tank vessel and removed with the tank vessel. Under no circumstances will oily wastes be accepted from the tank vessels.**

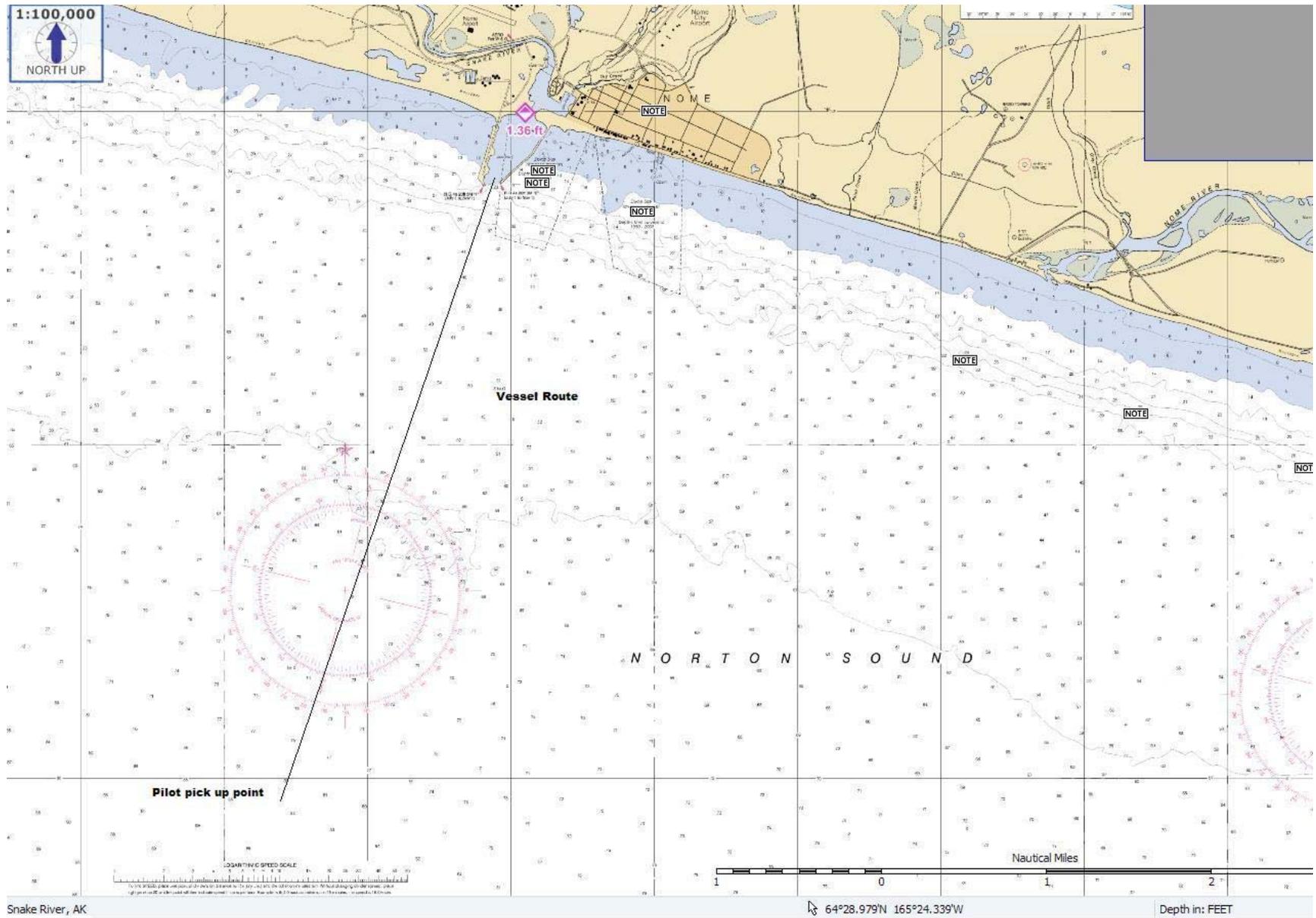


Figure 3.1-3 Nome Route

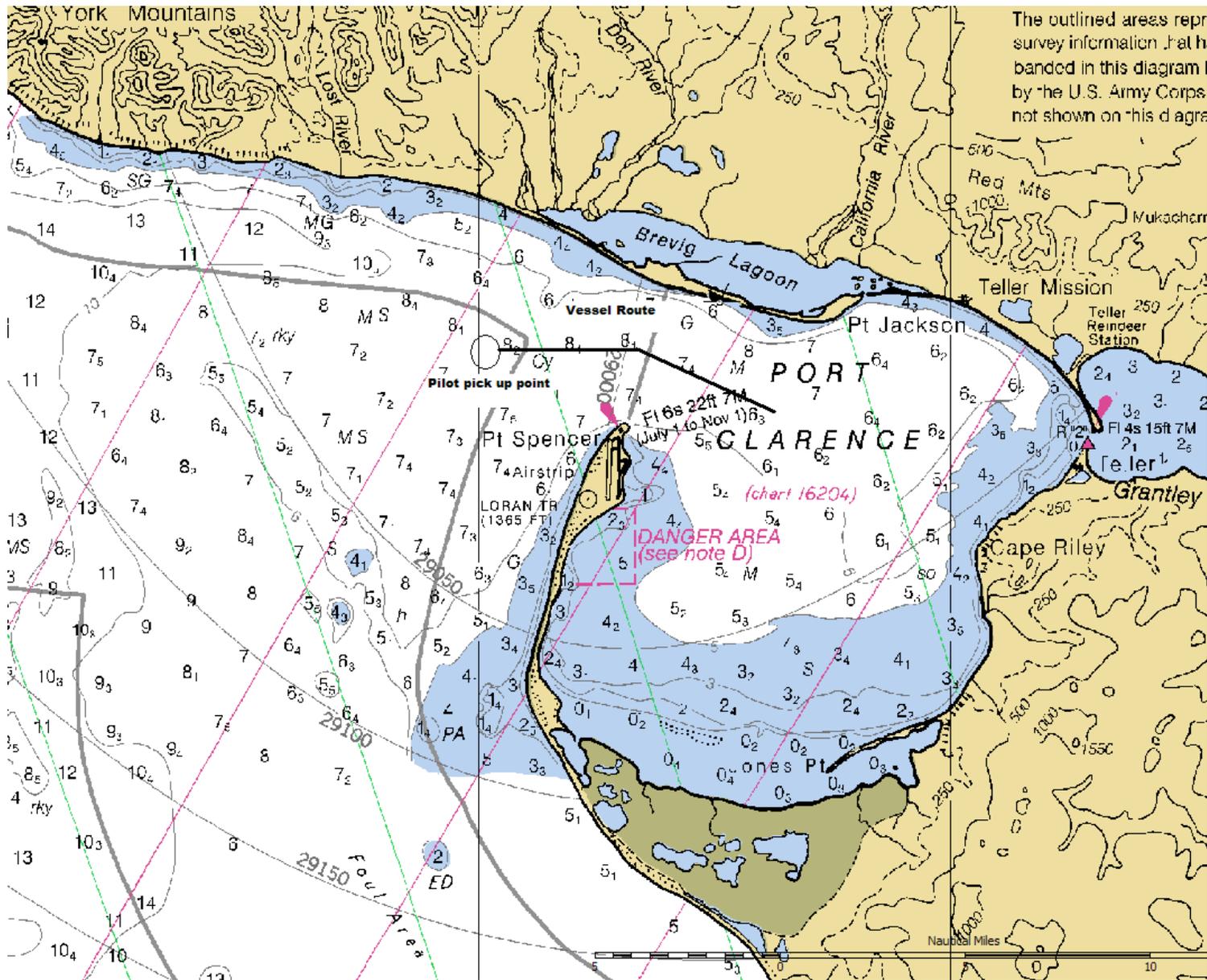


Figure 3.1-4 Port Clarence Route

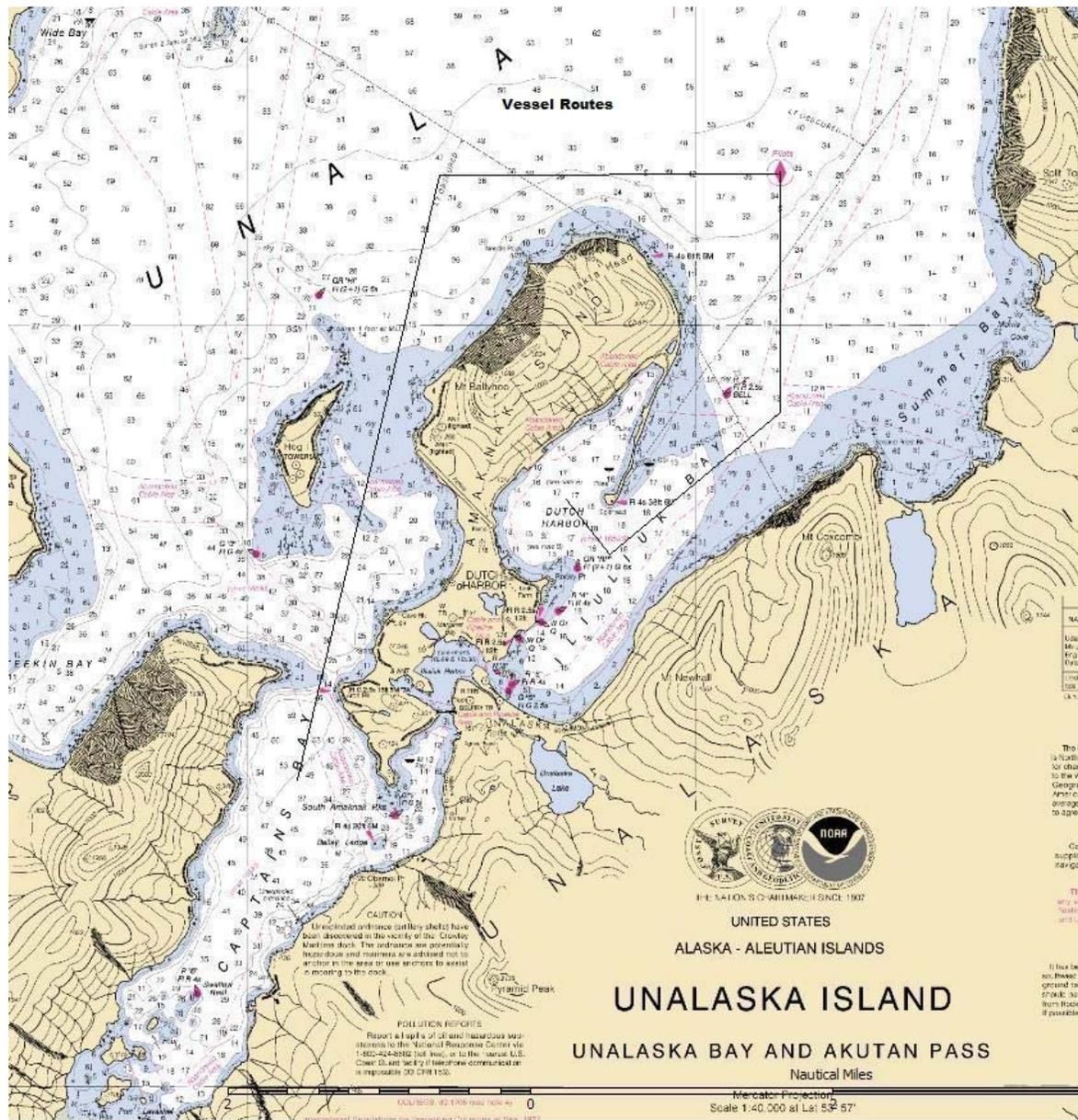


Figure 3.1-5 Dutch Harbor & Captains Bay Routes



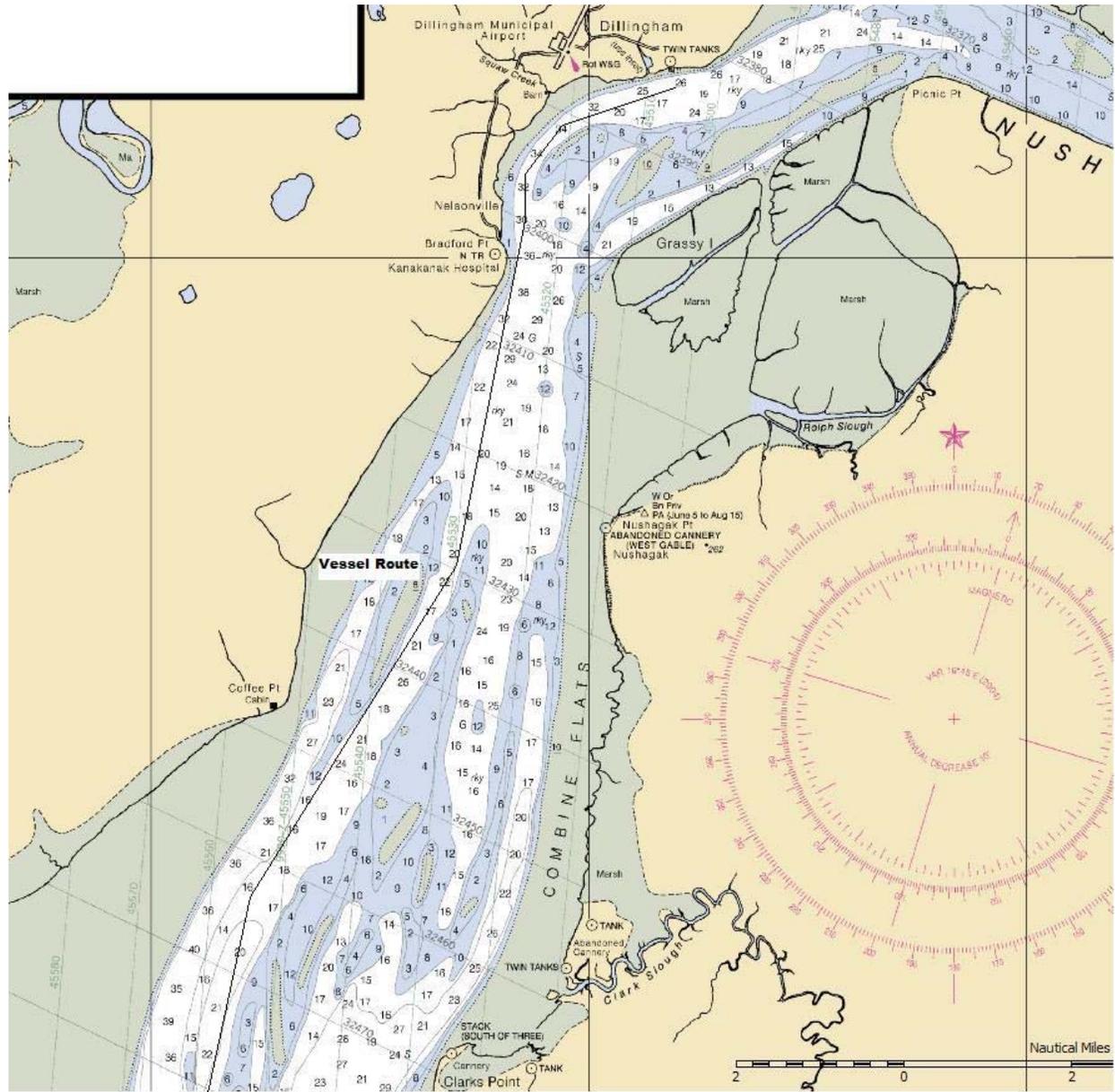


Figure 3.1-7 Nushagak Bay to Dillingham Route

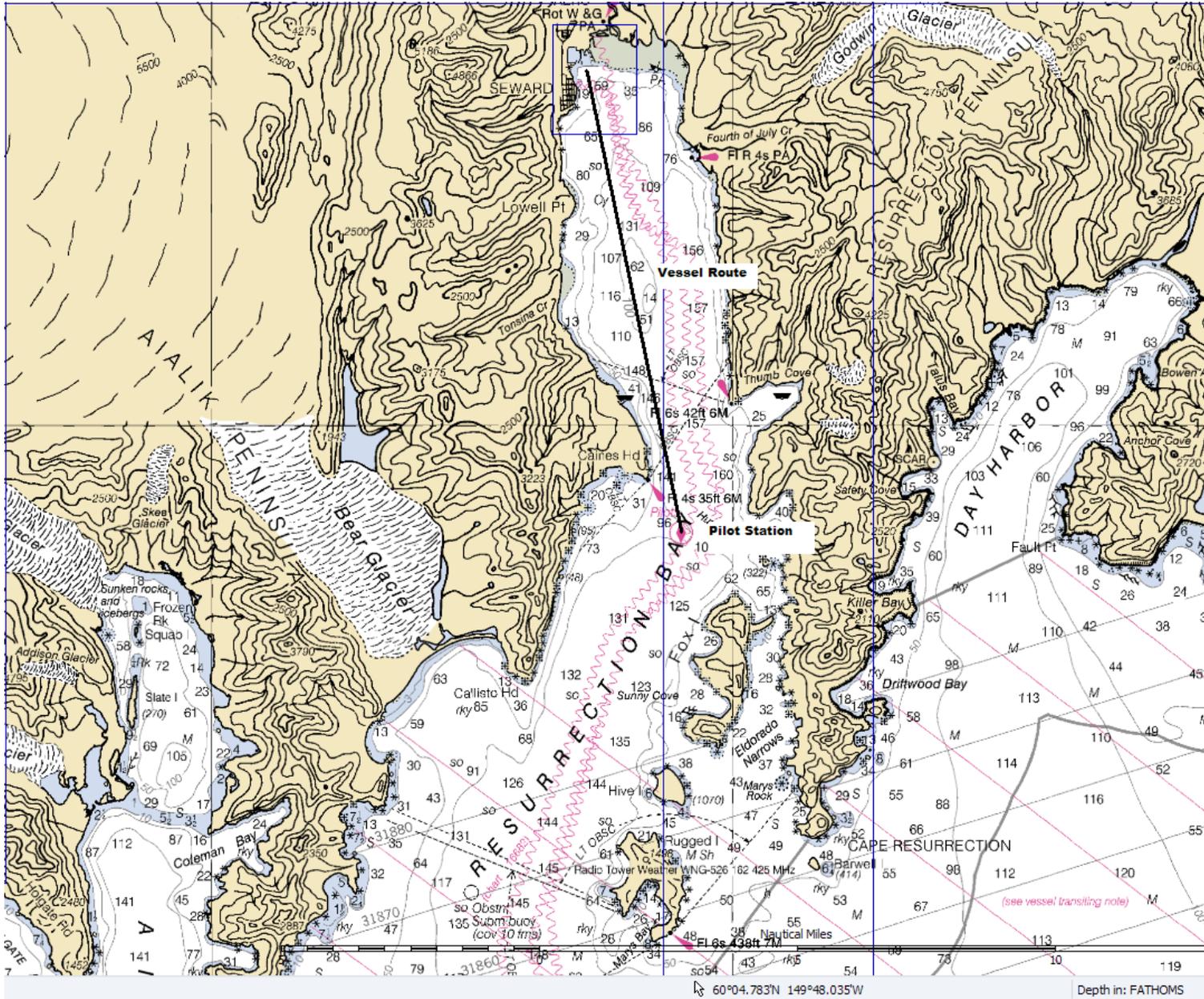


Figure 3.1-8 Resurrection Bay (Seward) Route



## **3.2 FACILITIES RECEIVING ENVIRONMENT**

**Not applicable.**

## 3.3 COMMAND SYSTEM

### 3.3.1 ACTIVATION OF THE INCIDENT COMMAND SYSTEM (ICS) STRUCTURE:

In the event of a discharge or the threat of a discharge from a VML chartered tanker, the Qualified Individual or the VML Spill Response Coordinator will institute the command structure based on the Incident Command System techniques included in this section. VML management, masters, and select VML employees have received training in ICS techniques and protocols. The VML ICS plan follows the traditional and nationally accepted format for Incident and Unified Command.

The size and depth of the ICS organization implemented will depend on the size of the response effort. In a small spill (25 to 3000 gallons), one person could perform all of the tasks required to respond. In a catastrophic discharge (100,000 gallons), a full ICS structure could be implemented, especially if significant recovery efforts were deployed. An ICS structure would be implemented as soon as possible, but would not be the first priority action.

The ICS system is designed to allow for the “ramping up “ of resources, and the management associated with those increased resources on site. The QI will, in conjunction with the VML QI/Spill Response Coordinator decide what level of ICS structure will be needed.

The master is in charge of the crew and is responsible for the tanker during transit.

The Tankerman (PIC) is responsible for the oil transfer operations as they are being conducted.

The Initial On Scene Coordinator (master/IOSC) is immediately notified of any spill. He/she then directs the crew to contain and clean up the spill as per their positions and their position descriptions (this section).

If the spill becomes greater than the capabilities of those on scene, or is to water, it is the responsibility of the IOSC to follow the notification procedures to request additional assistance. See Table 1.1-1.

Upon arrival of company ICS personnel, the on-scene personnel will transfer some of their responsibilities to those pre-designated company ICS individuals.

VML maintains operational control of all chartered vessels, as required by the State of Alaska, and provides spill response based on the Incident Command System techniques included in this section. Chartered vessel owners would be contacted as early as possible for informational purposes.

#### Response Contractors In The ICS Structure

Alaska Chadux (ACC) may provide response resources for VML. All Alaska Chadux personnel are trained in ICS organizational procedures consistent with the ICS program, and may participate in VML drills and training when practical.

In the event that resources in addition to the VML resources within the region are required to adequately respond to a spill, Alaska Chadux may provide personnel and equipment. In a large, multi-day response effort, it is possible that Alaska Chadux staff will fulfill roles in the Operations, Planning and Logistics areas of VML's ICS. For a detailed description of each Alaska Chadux staff member's functional role, refer to Section 1.1, Emergency Action Plan, of the Alaska Chadux Response Manual.

When assistance with an incident is requested by VML, Alaska Chadux will activate its internal ICS to mesh with and support VML's ICS. Alaska Chadux will then proceed to mobilize its equipment (owned or

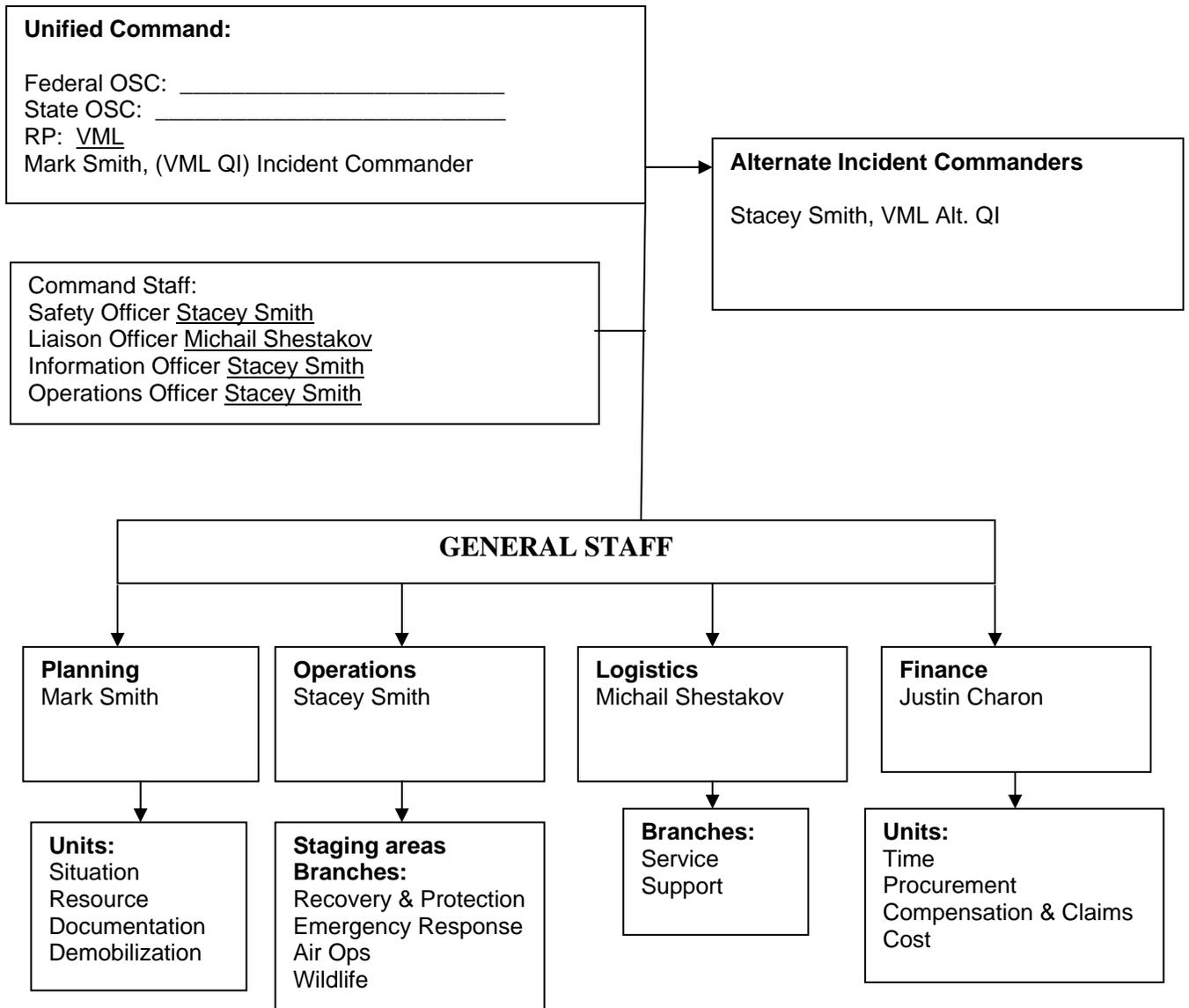
under contract), the Alaska Chadux responder pool and any necessary outside resources (i.e., industrial hygienists, archaeologists, wildlife experts, disposal consultants, etc.). In addition, when Alaska Chadux Corporation response resources are requested by VML, Alaska Chadux will at the direction of the Alaska Chadux general manager, activate their support team to direct the activation and mobilization of Alaska Chadux's response personnel, coordinate transportation requests for equipment and personnel, track and monitor the status of Alaska Chadux owned resources and provide financial accounting of resources used during a spill. VML maintains sole responsibility for management of the overall spill response.

Resolve Salvage & Fire (Americas) provides salvage and marine firefighting services to VML. Resolve Salvage & Fire (Americas) personnel are trained in ICS organizational procedures consistent with the ICS program. Resolve Salvage & Fire (Americas) personnel may fill key positions within the VML ICS organization such as Salvage, Fire Suppression, and/or Lightering supervisory positions and may participate in VML drills and training when practical.

Additionally, other third party contractors such as air charter and vessel charter companies, security services and other companies contracted during the response may fill specific positions, i.e. a catering company in the Food Unit, Insurance representatives in the Insurance/ Claims position.

VML through the Final Compliance Agreement has signed a Memorandum of Understanding whereby resources (including vessels) may be provided by other signatory companies during a spill event.

**FIGURE 3.3-1  
INCIDENT COMMAND ORGANIZATIONAL CHART (MED):**



See Notification Flow Chart at page 1.1-1 and Checklist at page 1.1-2

**ICS FORMS:**

See Appendix G – ICS Forms

### **3.3.2 ICS POSITION DUTIES**

During a catastrophic spill response, VML will reference the CG FOG position task descriptions and add positions as necessary.

#### **COMMAND STAFF**

##### **VML QUALIFIED INDIVIDUAL'S DUTIES**

QIs are the primary individuals trained to coordinate the shore based response to a spill or the threat of a spill from a vessel covered under this plan. QIs will in most cases become the Incident Commander, or an interim IC. They meet the requirements of 33 CFR 155.1026.

Each VML QI or AQI is designated and identified in the C-Plan/Vessel Response Plan and:

- is available on a 24-hour basis.
- speaks fluent English;
- is located in the United States;
- is familiar with the implementation of the C-Plan/VRP; and
- is trained in the responsibilities of the qualified individual under the response plan.

VML has provided each QI and AQI identified in the VRP with a document designating them as a qualified individual and specifying their full authority to—

- Activate and engage in contracting with oil spill removal organization(s) and other response related resources identified in the plan(s);
- Act as a liaison with the designated Federal and/or State On-Scene Coordinators (FOSC / SOSC); and
- Obligate funds required to carry out response activities.

The QI is not responsible for the adequacy of the VRP prepared by the owner or operator, or contracting or obligating funds for response resources beyond the full authority contained in their designation from the owner or operator of the vessel. The liability of a QI is considered to be in accordance with the provisions of 33 U.S.C. 1321(c)(4).

##### **Responsibilities of the Qualified Individual**

1. Establish initial communications with the vessel (if possible).
2. Perform reporting and notifications outlined in Section 1.2 (or delegate).
3. Establish communication with the FOOSC and SOSC by calling the applicable USCG MSO office and the applicable ADEC Response Team. Section 1.1 and 1.2.
4. Act as liaison between the vessel owner, the vessel master, and the FOOSC (USCG) and SOSC (State) during initial activation of this spill plan.
5. Notify, activate, coordinate with, or engage in contracts with oil spill removal organizations as directed by the master/Initial On Scene Commander (IOSC), FOOSC, and SOSC as necessary.
6. Obligate funds necessary to carry out required spill response activities on behalf of VML as described in this plan.
7. Establish a regular communication schedule with the master/IOSC.
8. Collect and document accurate information on vessel and spill status. Keep a log of all activities associated with the spill.

##### **INCIDENT COMMANDER (QI or Spill Response Coordinator)**

The Incident Commander (IC) is the general manager of the spill response team. The IC is responsible for overall management of all spill response activities, including: supervision of Incident Command Team and support staff functions; implementation of the incident action plan; authorization of personnel, equipment

and supplies; and evaluation of the performance of the Incident Command System (ICS) organization. The Incident Commander is responsible for the implementation of the VML contingency plan and response activities. The Incident Commander also communicates with government agencies and the media when necessary.

1. Activates VML corporate response and incident management personnel.
2. Establishes the preliminary strategy for the incident command immediately following activation, based on initial situation reports from the On-scene Response Team Manager.
3. Responsible for development of the incident action plan along with the Assistant Incident Commander. This plan will be prepared during the course of the spill response following each planning meeting. The plan should include incident objectives, organizational structure changes, assignments, communications, medical, transportation, map/chart of the area and other specific data such as weather forecasts, safety messages, spill trajectory and environmental issues.
4. Conducts initial briefing at the Command Center to include incident organization, current activities, summary of resources already dispatched and any special instructions or delegation of authority.
5. Coordinates staff activities and ensures that general welfare and safety of personnel is adequate for all components of the incident.
6. Assesses the severity of the incident and activates any additional assistance agreements or contracts required to ensure the effectiveness of containment and cleanup response action.
7. Activates the members of the incident command response team as appropriate.
8. Ensures that all response actions are properly performed as established in this contingency plan. These actions include, as appropriate: emergency rescue, evacuation, control and containment actions, salvage operations, sampling, and monitoring activities, and cleanup and removal actions.
9. Ensures proper documentation and disposal of oily waste, debris, and contaminated material.
10. Provides all necessary support activities and documentation throughout response operations for purposes of legal action and cost recovery.
11. Coordinates spill response activities with volunteer organizations.

#### **INITIAL ON-SCENE COMMANDER (IOSC) (Master)**

1. In the event of a spill, the IOSC is notified immediately.
2. The IOSC directs the On-scene Response Team in immediate safety and spill containment procedures.
  - Evaluate potential safety risks to personnel in the area.
  - Establish safety zone and determine level of personal protection equipment.
  - Stop the source of the spill, if possible. Shut down and isolate operations.
  - Initiate immediate containment and recovery procedures as necessary for spills to the vessels deck.. For spills to water, request for additional assistance will be made through the VML Spill Response Coordinator, who will activate VML and contractor resources as needed.
4. The IOSC will follow the Notification Procedures Tables 1.1-1 and –2 and Figure 1.2-1 of the Contingency Plan.
5. Upon arrival of the Company Incident Command Team, the On-scene Response Team will transfer some of their responsibilities to the designated company incident command team officers.

#### **LIAISON OFFICER**

1. Acts as direct liaison with government agency on-scene coordinators as follows:
  - Provides point of contact for government representatives.
  - Identifies representatives from each agency including communications link and location.
  - Ensures agency representatives are informed of oil spill activities.

## **SAFETY OFFICER (initially Mate)**

The safety officer is responsible for monitoring and assessing hazardous and unsafe situations and developing measures for assuring personnel safety. He/she will correct unsafe acts or conditions through the regular line of authority, but may stop or prevent unsafe acts when immediate action is required.

1. Obtains briefing from the Incident Commander.
2. Identifies hazardous situations associated with the Incident.
3. Participates in planning meetings.
4. Reviews Incident Action Plan.
5. Identifies potentially unsafe situations.
6. Ensures that all oil spill personnel are informed of safety requirements.
7. Exercises emergency authority to stop and prevent unsafe acts.
8. Investigates and reports accidents that have occurred within the incident area.
9. Reviews and approves a medical plan.
10. Produces and publishes site specific safety plan. (See Section 1.3, Safety)
11. Ensures all contractors comply with established safety plan.
12. Monitors spill site for industrial hygiene/safety hazards.
13. Provides all necessary safety and personal equipment for spill response operations.
14. Plans site security measures.
15. Provides training and advice to operations personnel on safety and health matters.
16. Briefs any contractor personnel called in to assist with spill response operations.
17. Air quality testing

## **INFORMATION OFFICER**

Public Affairs is responsible for the formulation and release of information about the oil spill incident to the news media and other appropriate agencies and organizations. The incident information function is a primary link between media, public and the incident command team. The strength of this link depends heavily upon the working relationship between the Public Affairs Officer and the other team members and the understanding that each has about each other's jobs and responsibilities.

1. Obtains briefing from Incident Commander.
2. Contacts local Federal and State public affairs sections to coordinate public information activities.
3. Establishes a single Incident Information Center.
4. Arranges for necessary work space, materials, telephones and staffing.
5. Obtains information on current status of containment efforts.
6. Prepares initial information summary as soon as possible after arrival. Observe guidelines on the release of information imposed by the Incident Commander.
7. Releases news to news media and posts information in emergency operations center and other appropriate locations.
8. Attends planning meeting to update incident command team regarding information that has been released.
9. Arranges meetings between media and Incident Command Personnel.
10. Prepare a media statement, subject to the approval and direction of the Commander maintaining a close working relationship with all news media, government agencies, conservation groups, and civic and public organizations.
11. Assesses the public relations needs of the company and the marine/oil industry as a whole, with respect to the spill.
12. Coordinates, prepares and releases news bulletins subject to the approval and direction of the OCS.
13. Works with media representatives, including accompanying them on tours of the spill site.

14. Monitors news media (radio, television and local papers) to ensure that factual reporting is being relayed to the general public.
15. Creates a record, both pictorially and written, of the spill events as provided by the media and on-scene documentation.

## **GENERAL STAFF**

### **PLANNING SECTION CHIEF**

1. Activate Planning Section units.
2. Assign available personnel already on site to ICS organizational positions as appropriate.
3. Collect and process situation information about the incident.
4. Supervise preparation of the Incident Action Plan (IAP).
5. Provide input to the Incident Command and Operations Sections Chief in preparing the IAP.
6. Participate in planning and other meetings as required.
7. Establish information requirements and reporting schedules for all ICS organizational elements for use in preparing the IAP.
8. Determine need for any specialized resources in support of the incident.
9. Provide Resources Unit with the Planning Section's organizational structure including names and locations of assigned personnel.
10. Assign Technical Specialists where needed.
11. Assemble information on alternative strategies.
12. Assemble and disassemble teams or task forces as necessary.
13. Provide periodic predictions on incident potential.
14. Compile and display incident status summary information.
15. Provide status reports to appropriate requesters.
16. Advise General Staff of any significant changes in incident status.
17. Incorporate the incident Traffic Plan (from Ground Support Unit), Vessel Routing Plan (from Vessel Support Unit) and other supporting plans into the IAP
18. Instruct Planning Section Units in distribution and routing of incident information.
19. Prepare advice for release of resources for submission to members of Incident Command.
20. Maintain Section records.

### **OPERATIONS SECTION CHIEF**

1. Familiarity with oil spill containment and recovery equipment, pumping and transfer systems, storage and disposal methodology.
2. At the direction of the Incident Commander, works with operations personnel as a problem solver.
3. Recording of data regarding equipment and oily waste disposal. This information should be forwarded to the Command Center for documentation purposes.
4. Proper maintenance of crew and field equipment. Maintains time cards and activity logs.
5. Submits logs to the company field accountant at the end of each work period.
6. Updates the Incident Commander regarding the progress of the site operations and related costs.
7. Schedules and coordinates air operations including movement of people and equipment and airborne spill surveillance.
8. Responsible for the overall spill response operation.
9. Maintains active line of communication with safety officer and communicates all work plans prior to implementation.
10. Determines the scope of the spill.
11. Determines requirement for lightering pumps or salvage equipment. Incorporates VML's Salvage and Marine Firefighting service provider into the ICS organization as appropriate.
12. Informs VML management about all phases of spill response operation.
13. Directs the Incident Commander to the spill site with the Incident Command Team members.
14. Activates VML's contact oil spill response contractors or cooperatives for assistance as necessary.

15. Briefs any contractor personnel called in to assist with spill response operations.
16. Responsible for demobilization procedures.
17. Serves as the company representative on any regional government or agency group or committee whose purpose is related to assisting in emergency operations.
18. Transmits pertinent information received from government sources to the Incident Commander.
19. Submits reports/records as required by government agencies during the course of the spill response.
20. Accompanies government representatives on inspection tours of a spill site.

### **LOGISTICS SECTION CHIEF**

1. Provides services for all on-site personnel including housing, meals, sanitation and transportation.
2. Acquires and coordinates the support services and equipment required for a functional command center.
3. Provides surface transportation of people and equipment. All transportation, rental cars, vans, trucks and trailers needed to move from airport to site.
4. Implements contracts as necessary to support transportation service requirements including fishing boat contracts.
5. Provides arrangements for cleanup of containment and recovery equipment. Boat cleaning permit based on suggested method, boom cleaning station.
6. Provides location and support to wildlife capture and rehab operations as well as secure freezer storage for recovered dead animals.
7. Identifies resources needed, expedites delivery and transfer of all required equipment. (Communications equipment, boom, skiffs, sorbents, de-con equipment, trash/hazmat bags, hand tools.) Provides property/inventory tracking.
8. Insures finance receives documentation for all expenditures for accounting purposes.
9. Administers third party contracts for support services provided from outside of company assets.
10. Coordinates storage location and accounting of all oil waste collected and coordinates disposal with a contractor after approval by Environmental unit leader, IC, and regulatory agencies.
11. Calls local security agency or law enforcement for security force.
12. Contracts with labor source company for crews with required skills as established by Operations. (Job service, hazwoper trained personnel).

### **FINANCE SECTION CHIEF**

1. Coordinates all administrative functions.
2. Implements PO system and coordinates with logistics for timely acquisitions and accurate accounting of expenditures.
3. Documents the financial accounts of the incident response.
4. Ensures all reports are submitted in a timely manner.
5. Provides company hats and/or vests to positively identify spill response personnel.
6. Provides vests or name plates to identify all unit leaders in Command Center.
7. Settles payment of approved minor financial claims. Damage claims--fishermen claims.
8. Ensures forms for claims, payroll and insurance are accessible.
9. Ensure that spill accounting practice meet VML requirements.

## **COMMAND CENTER**

The primary ICS Command Center for a response to an oil spill originating from a VML chartered tanker will be the escort tug on location. If this is inadequate, or inaccessible, the Alternate Command Center may be set up at the VML Anchorage office or in a nearby village or town listed in Section 1. Section B of the Subarea Contingency Plans list potential command centers ([See Appendix B](#)).

Additional information and guidance on the ICS can be found in the Alaska Incident Management System (AIMS) Guide ([See Appendix E](#)).

## 3.4 REALISTIC MAXIMUM RESPONSE OPERATING LIMITATIONS

### 3.4.1 GENERAL ADVERSE CONDITIONS:

1. Adverse Weather, Sea States, Tides and Currents

**TABLE 3.4-1  
DESCRIPTION OF SEA STATES AND BEAUFORT SCALE**

Wind Speed (knots)	Beaufort Scale	Maximum Wave Height (m)	Sea State	Appearance
1-3	1	0.2	0-2	Calm, small ripples without foam crests
4-6	2	0.5	1-2	Small wavelets, do not break
7-10	3	1.0	3	Large wavelets, beginning to break
11-15	4	2.0	3-4	Small waves, frequent foam crests
16-20	5	3.0	4-5	Small waves with breaking crests. Fairly frequent <a href="#">white horses</a> .
21-26	6	4.0	5	Long waves begin to form. White foam crests are very frequent. Some airborne spray is present.
27-33	7	5.5	6	Sea heaps up. Some foam from breaking waves is blown into streaks along wind direction. Moderate amounts of airborne spray.
34-40	8	7.5	6-7	Moderately high waves with breaking crests forming spindrift. Well-marked streaks of foam are blown along wind direction. Considerable airborne spray.

Gale force winds and the accompanying elevated sea conditions may occur at any time of year in all Alaskan waters. These adverse weather conditions are encountered on a regular basis in marine waters (bays, passes, protected ports), but are rarely encountered during the navigation season in the protected inland waters and rivers.

The spill response equipment on VML vessels is designed to operate in conditions up to Beaufort Scale level 3 and Sea State between 1 and 2.

The capability of Alaska Chadux Corp response equipment to operate in elevated wind conditions and sea states is defined in the Alaska Chadux Response Manual, Section 3, Table 3.4-2. Generally, this equipment also is sufficient to operate up to Beaufort Scale level 3 and Sea States between 1 and 5, depending on the type of equipment.

2. Ice and debris

Ice is discussed in Section 2.4. Ice may be encountered during the early spring (at the end of breakup period) and late autumn (as new ice is formed). Small quantities of ice may inhibit the effectiveness of containment boom on rivers as well as the effectiveness of skimmer systems. Additional response measures are needed during times where small quantities of ice are present, including more intensive

management of fixed containment boom and removal of ice from collection areas (skimmer pockets). Containment boom and vessels may be used to divert ice away from containment and recovery locations to increase equipment efficiencies and prevent equipment damage.

### 3. Limited Visibility or darkness

Daylight hours decrease measurably from August through March as you move north through the waters of Alaska. However during May, June, and July working daylight is available in the Western Alaska and Bristol Bay river drainage systems between 18 and 24 hours a day, with extended twilight hours making 24 hour recovery operations feasible. From August until October the light decreases but still provides no less than 12 hours of workable light by the time VML barge operations cease in early October. During periods of darkness, only response vessels with sufficient deck lighting and navigation instruments will be used. The use of portable lights at shoreside work locations may provide sufficient lighting to continue operations around the clock. During heavy fog or precipitation, on water response activities will be difficult and potentially unsafe. During these times, response activities should continue shoreside with a focus on planning, logistics, equipment preparation and other activities that can safely be performed. It may be possible to continue operation of shoreline entrapment and collection sites while on water operations are unsafe or not effective.

4. Traffic restrictions. Cleanup operations around a village during times of high river activity (hunting and berry gathering seasons, boat races) or heavy port activities, such as during peak fishing seasons, may restrict the ability to provide a full and unhindered deployment. If such conditions exist, coordinate with the local government to make a time schedule for activities that are a necessity to reduce the impact on response activities. Also consider requesting a safety zone be established by the USCG to control vessel traffic in the area.
5. Mechanical problems or failure. Breakdowns of critical equipment may slow or halt recovery. This is addressed by the equipment reserves provided by Alaska Chadux and other equipment available to VML.

## 3.4.2 RESPONSE ACTIONS UNDER LIMITING ADVERSE CONDITIONS

Containment, control and recovery actions may not be possible in sea states above level 3 based on safety and equipment operating limitations. If weather conditions are a safety issue or reducing the effectiveness of the response equipment, consideration should be given to operating in protected areas such as protected bays, leeward areas, or nearshore and shoreline areas.

To identify the realistic response operating limitations for vessels operating in Interior and the inland waters of Western Alaska and Bristol Bay, two aspects of operations must be examined separately. The first is during an actual transfer. Transfers can be either at terminals or villages located in sheltered areas, or between vessels in sheltered waters. When operating in these locations, the seas are less than three (3) feet. The response equipment carried on board is designed to operate in seas of up to three (3) feet.

Strong winds are the one factor that might threaten a response operation, due to safety considerations. Heavy upriver winds meet the current and create very steep and sometimes large waves. Deployment of the containment boom and operating deployment skiffs in heavy winds should be avoided. Although it is wrong to set a cut-off point for transfer operations, whenever the captain or facility operator determines that the conditions are unsafe, he or she will take one or more of the following temporary measures:

- Stop the operation and wait until the conditions allow for a safe operation.
- Assign a second watchman to check the vessel security.
- Add additional mooring lines to improve the security of the vessel.
- Start the tow boat engines so it can respond more quickly to an emergency. (During the navigation season VML tugs are always on standby.)

A second aspect of operations to examine is during transit between facilities. During transits, the vessel is not involved in a transfer but could spill oil because of weather damage or grounding. Also during transits, the vessel may encounter weather beyond what available response operations or response equipment could endure. Once a vessel is in transit, it may not be able to suspend its operation when these conditions occur. It must continue to its destination or to some intermediate safe port.

Limiting conditions could result from a combination of winds, tides, and coastal geomorphology. It would be a difficult exercise to try to quantify the portion of time a vessel is likely to be in limiting conditions. However, VML will adjust as conditions demand. Generally speaking, winds at more than 34 knots create conditions on open water that could preclude any spill response. According to US Coast Pilot 9, winds more than 34 knots in the coastal waters of Alaska occur less than 7 percent of the time. While we acknowledge that there are other factors involved which may increase the percentage of time that response activities would be limited, we are not able to quantify this over the extensive inland area VML vessels will operate. The fact is that the periods when environmental conditions might exceed the operating capability of response equipment are unpredictable and tank barges could be caught in conditions exceeding the response capability at any time and place.

To reduce the chance of a spill, VML has adopted prevention measures to offset these inherent risks. These measures include:

- Using only double hulled tankers.
- Implementing an environmental and safety management system.

In addition to these prevention measures, VML has operating procedures that are used to reduce the risk of spills in transit during periods when conditions exceed response limitations.

- Slow the vessel to reduce stress and shock loads.
- Providing the Master with the authority to alter speed, course, and direction at his/her discretion.
- Seeking shelter in a place of refuge until conditions improve.

During hours of darkness, generators and explosion proof lighting in areas not served by electricity would provide lighting. All VML operated/owned tugs are equipped with diesel generators, spot lights, and sodium floodlights capable of providing extensive illumination. VML chartered tankers will have deck lighting sufficient to meet the regulatory requirements of the USCG. However, containment and recovery operations in the dark may not be safe even with lights. Preparation for commencing daylight operations will be the priority if operations cannot be conducted safely or effectively during darkness. This may include preparation of equipment, maintenance and vessel resupply.

If product is spilled on ice, dispersing the oil from the ice into the water with fire hoses on the vessels may be appropriate to make containment and recovery in the open water possible. VML operations occur only where thin ice or ice flows may be rarely encountered which generally would not hamper a spill response.

All VML operated vessels are crewed with personnel with proper US Coast Guard or Flag State licenses and documents. Experienced Masters and documented PICs evaluate weather or environmental conditions on a case-by-case basis prior to beginning each marine transfer. No one set of limitations or guidelines is applicable to all situations.

All VML operated vessels are equipped with the appropriate and most current navigational data for their operational area(s) that may include:

1. Area specific information on the average seasonal occurrence of environmental conditions which can be found in the Appendices of the United States Coast Pilot, Volume9 (pages T1 -- T20).
2. Pacific Tide Tables
3. Ice mapping services as needed (See Section 1.4.9)
4. Weather Broadcasts (See Section 1.4.9) (All vessels monitor marine weather broadcasts.)

It is understood that extreme adverse weather conditions could preclude any response actions and limit operations. It is anticipated that the following activities could be taken under adverse weather conditions.

1. Prepare shore anchoring system for containment boom.
2. Conduct air surveillance, if possible.
3. Conduct assessment and prepare for probable response actions once weather subsides.
4. Maintain personnel and equipment in a "ready" status for immediate deployment once weather subsides.
5. Conduct response operations in areas that are protected from the effects of the weather such as, protected bays, leeward and nearshore areas, and shoreline areas that are safe to work.

## 3.5 LOGISTICS SUPPORT

Logistical support may include transportation equipment, earth moving equipment, oil storage equipment and other misc. support services, i.e. telephone lines, meals etc.

The Logistics Section Chief will coordinate logistical coordination. See [Section 3.3.2](#) for a description of the Logistics Section Chief responsibilities and procedures.

The air operations unit leader will coordinate any required air transit restriction zone requirements for aircraft involved in spill response with the local FAA.

The vessel operations unit leader will coordinate any required vessel transit restriction zone requirements for vessels involved in spill response or Notices to Mariners with the FOSC, and/or the USCG COTP Sector Anchorage.

All mechanical equipment would be serviced and repaired by VML's shop personnel either at a spill site or at the Aleknagik repair facility unless it must be repaired by other certified personnel. Then either a certified repairman would be flown to the spill site or the equipment would be flown out.

VML's Equipment and maintenance schedule is listed in [Section 3.6](#).

See Table 3.5.2 and the Alaska Chadux Response Manual, Section 3.5.

**TABLE 3.5.1  
BRISTOL BAY, WESTERN, AND NORTHERN LOGISTICS SUPPORT SERVICES**

<b>EQUIPMENT RENTAL</b>	<b>CITY</b>	<b>PHONE</b>
Knik Construction	Bethel	543-2969
Faulkner Walsh Constructors	Bethel	543-3264
Salzbrun Services	Bethel	543-3165
Crowley Marine Services	Nenana	832-5505
<b>CONTRACTORS- GENERAL</b>	<b>CITY</b>	<b>PHONE</b>
Foundation Services, Inc.	Bethel	543-3252
Knik Construction	Bethel	543-2969
Dillingham Construction Co.	Dillingham	842-5521
D&J Constructors & Rentals	Dillingham	842-2222
Marine Construction & Engineering	Dutch Harbor	581-1476
<b>COMMUNICATIONS</b>	<b>CITY</b>	<b>PHONE</b>
Alaska R&C Communications	Anchorage	888-333-1044
TSE Communications	Anchorage	800-770-5500
North Slope Telecom	Anchorage	907-562-4693
Surveyors Exchange	Fairbanks	907-452-6079
Bristol Bay Cellular	King Salmon	907-246-3403
<b>AIR SERVICES</b>	<b>CITY</b>	<b>PHONE</b>
Alaska Airlines	Anchorage	800-252-7522
ERA (Frontier Flying Service/Hageland/Arctic Circle)	Anchorage	800-478-6779
Lynden Transport	Fairbanks	800-478-5535
Northern Air Cargo	Anchorage	800-478-3331
ACE air cargo	Anchorage	888-722-0232

Tucker Air	Dillingham	842-1023
Pen Air (Grumman Goose 932 & 741 amphib. @ 1650#, G-44 Widgeon @700#)	Dutch Harbor Dillingham Aniak Anchorage	581-1383 842-5559 675-4450 243-2323
Air Logistics of Alaska	Fairbanks	452-1197
Everts	Fairbanks	450-2300
Warbelow's Air Ventures	Fairbanks	474-0518
Wright Air Service	Fairbanks	474-0502
Bering Air	Kotzebue Nome	442-3187 443-5464
King Flying Service	Naknek	246-4414
Grant Aviation	Dillingham Bethel	842-2955 800-764-7607
Baker Aviation	Nome Kotzebue	443-3081 442-3108
Southern Air Transport	US	1-800-327-6456
<b>MARINE TRANSPORTATION SERVICES</b>	<b>CITY</b>	<b>PHONE (907)</b>
Alaska Marine Highway	Statewide	800 382-9229
Marine Construction & Engineering	Dutch Harbor	581-1476
Bering Sea Fisheries (tug, barge, LCM)	Emmonak	949-1513
Amak Towing	Kodiak	486-5503
Anderson Tug and Barge	Seward	224-5506
Northland Services (terminals, tugs, barges)	Statewide	276-4030
Sea Coast towing (tugs, barges)	Statewide	276-2688
Ruby Marine (tugs, barges)	Nenana	832-1062
Crowley Marine Services (terminals, tugs, barges)	Statewide Bethel	777-5505 543-2421
Dunlap Towing	Unalaska	(800) 476-3114
Magone Marine Service	Unalaska	581-1400
Samson Tug and Barge	Seattle Dutch Harbor	800-331-3522 907-581-4077.
<b>HELICOPTERS</b>	<b>CITY</b>	<b>PHONE (907)</b>
Yukon Helicopters	Bethel	543-3280
Chena River Aviation	Fairbanks	455-8480
Era Helicopters	Anchorage	248-4422
Aurora Aviation	Delta Junction	895-1850
Air Logistics	Fairbanks	452-1198
Egli Air Haul	King Salmon	246-3551

## 3.6 RESPONSE EQUIPMENT

### 3.6.1 LOCATION, INVENTORY AND OWNERSHIP OF EQUIPMENT

**TABLE 3.6-1  
DEDICATED RESPONSE EQUIPMENT ON EACH VML OWNED TUG/TOW COMBINATION**

Description of VML owned equipment:	Quantity	Model & Make	Rating/ Capacity	Location
Air Monitor (LEL/O <sup>2</sup> )	1			Tug
Containment Boom	3 x length of barge	Fast water or equivalent	6" x 12" swift water	Barge deck or top of machinery or shelter space
Boom Tow Bridles	2	Generic		On boom
Anchor Systems	1	6 x 40lb/ 1000' line		Tug
Skimmer	1	1" Rigid Manta Ray	42.8 bph EDRC	Box on deck
Suction Hoses	2	3"x20' suction	W/quick connects Compatible w/fuel	Top pumphouse
Discharge Hoses	2	3"x50 discharge	W/quick connects Compatible w/fuel	Top pumphouse
Transfer Pump, portable	1	Diesel Model 60D	400 gpm. 3"	Barge deck
Trash Pump portable	1	Homelite or equivalent	1 1/2"	Tug
Fire Nozzle	1	1.5"	Quick connects	Tug
Fire hose	2	1.5"x50' hose	Quick connects	Tug
Suction hose	2	1.5"x 20'	Quick connects	Tug
Suction foot valve	1	1.5"	Quick connects	Tug
Sorbent Roll	2 rolls	3' x 150'		Tug
Sorbent Pads	10 bales	19" x 19"		Tug
Sorbent Sweep	4 bales	19" x 100'		Tug
Sorbent Boom	6 bales	5" x 10'		Tug
Plastic bags	2 rolls			Tug
<b>PPE</b>				
½ mask respirator	6	North 7700	3 med. / 3 lg.	Tug
Respirator filters	24	N7500 OV		Tug
Tyvek suits	24	LK5428[52]	12 XL 12 2X	Tug
Gloves	24	3245XL Nitrile	Chemical resistant	Tug
Inner gloves	1 box		Chemical resistant	Tug
Boot covers	12	LB1250Y	Chemical resistant	Tug
Face shields	4	MSA 488131/804639		Tug
Safety goggles	6	Uvex	Chemical/impact	Tug
Safety Glasses	12 pr			
Work boat	1	18' w/ 60 HP & VHF		On deck or in water
Drums	2	55 gal.	W/clamp tops	Barge deck

**VML Support Equipment and Personnel Potentially Available:**

VML maintains a variety of equipment that can be transported to a spill site. In addition to dedicated spill response equipment on the vessel, an inventory of heavy equipment, repair shops with equipment, metal fabrication with equipment and operators are available in the Aleknagik and Dillingham area to assist in the response operations.

This support equipment may be located anywhere within the VML operations area and may include fork lifts, pickup and flatbed trucks, cranes, diesel generators and light sets, air compressors, tank trucks, vac trailers, oil water separators and water scrubbers, pumps, hoses, storage bladders and Oxy/Explosion meters. These support resources may fluctuate in availability but usually can be transported to assist in a spill.

Other tugs and barges may be in the area and are also equipped with spill equipment, operational equipment, and trained personnel.

Resources from Alaska Chadux would be called in if necessary. Alaska Chadux Response Equipment information is listed in the Alaska Chadux Response Manual, Section 3.6 contained in Appendix H.

**TABLE 3.6-2  
ADDITIONAL RESPONSE EQUIPMENT AVAILABLE UNDER CONTRACT**

Description of equipment:	Quantity	Model & Make	Rating/ Capacity	Owner
<b>VESSELS</b>				
Tank Barge – Skip I	1		1357 bbl	Pacific Fishing Assets
M/V Morning Thunder	1	56' Landing Craft		Pacific Fishing Assets
M/V Jackie M	1	61' Landing Craft		Pacific Fishing Assets
M/V Seven C's	1	32' Assist Vessel		Pacific Fishing Assets
12' Work boat	1	Lund w/ 25 hp		Pacific Fishing Assets
18' Work boat	1	Seine skiff w/ 55 hp		Bristol Alliance Fuels
18' Work boat	1	w/ 60 hp		Pacific Fishing Assets
<b>CONTAINMENT</b>				
Boom	200'	17" Swift water		Pacific Fishing Assets
Boom	1,000'	20" SeaCurtain		Bristol Alliance Fuels
<b>SKIMMERS</b>				
Weir Skimmer	1	Skim-Pak 2200	2.2 bbl/hr EDRC	Pacific Fishing Assets
Manta Ray Skimmer	2	Slickbar	22.8 bbl/hr EDRC	Bristol Alliance Fuels
<b>PUMPS</b>				
3" Transfer Pump	1	Diesel	400 gpm	Pacific Fishing Assets
1 ½" Trash Pump	1	Homelite or equiv.		Pacific Fishing Assets
3" Trash Pump	1	Honda GX240	354 gpm	Pacific Fishing Assets
3 " Trash Pump	1	IPT 3S5XAR	300 gpm	Pacific Fishing Assets
2" Trash Pump	1	Multiquip QP-202TH	200 gpm	Pacific Fishing Assets
2" Trash Pump	1	Honda 255	200 gpm	Pacific Fishing Assets
2" Diaphragm Pump	1	Air driven	100 gpm	Bristol Alliance Fuels
2" Trash Pump	1	Marlow	130 gpm	Bristol Alliance Fuels
<b>STORAGE</b>				
Tank	1		75,000 gal	Bristol Alliance Fuels
Tank	2		23,000 gal	Bristol Alliance Fuels
Tank Truck	8	Various	2,000 – 5,000 gal	Bristol Alliance Fuels
<b>SORBENTS</b>				

Sorbent Pads	12	100 ct bale		Pacific Fishing Assets
Sorbent Pads	3	100 ct bale		Bristol Alliance Fuels
Sorbent Roll	5	3' x 150'		Pacific Fishing Assets
Sorbent Roll	5	19" x 144'		Bristol Alliance Fuels
Sorbent Boom	6	5" x 10' bales		Pacific Fishing Assets
Sorbent Boom	7	8" x 10' bales		Pacific Fishing Assets
Sorbent Boom	3	6" x 10' bale		Bristol Alliance Fuels
Sorbent Sweep	13	100' bales		Pacific Fishing Assets
<b>MISCELLANEOUS</b>				
3" Suction Hose	24	3" x 20'		Pacific Fishing Assets
3" Discharge Hose	3	3" x 50'		Pacific Fishing Assets
2" Suction Hose	10	2" x 20'		Pacific Fishing Assets
2" Discharge Hose	6	2" x 50'		Pacific Fishing Assets
2" Suction Hose	3	2" x 25'		Bristol Alliance Fuels
2" Discharge Hose	6	2" x 50'		Bristol Alliance Fuels
1½" Suction Hose	2	1 ½" x 20'		Pacific Fishing Alliance
1½" Discharge Hose	2	1 ½" x 50'		Pacific Fishing Assets
Hot water Pressure Washer	1	Hotsey 1,300 psi		Bristol Alliance Fuels
Anchors/Chain/Line		Misc. Sizes		Pacific Fishing Assets
Air Monitor	1	LEL/O2		Pacific Fishing Assets

### 3.6.2 TIME FRAME FOR STARTUP AND DELIVERY

- A. Contact names, 24 hour telephone numbers for owners or persons responsible for all response equipment are located in Table 1.2-2.
- B. Should a spill occur from any equipment, the Initial On Scene Incident Commander (master) will immediately be notified.
- C. Response Time
  1. In the event of a small volume on deck spill, on-site equipment and personnel will be utilized. VML chartered tankers carry response resources to be able to cleanup operational deck spills.
  2. If assistance is necessary, the Initial On Scene Incident Commander will immediately request it from a company QI/Spill Response Coordinator using the described communication and command system. See 1.1-1.
  3. Logistics of off site equipment. Refer to section 1.5.1
  4. Mobilization time is the time required to load equipment and move it to the appropriate areas for deployment. Mobilization is dependent on a variety of factors including the amount, size and weight of the equipment, availability of personnel and equipment for transporting the equipment.
    - a. Mobilization of the vessel's response equipment would be less than twenty minutes as it is ready for deployment.
    - b. Outside area mobilization could range from 1 hour to days depending on weather and location of the incident.

### 3.6.3 MANUFACTURER'S RATED CAPACITIES

#### VML Skimmers:

<b>Make</b>	<b>Slickbar</b>
Model	1" Rigid Manta Ray
Manufacturer	Slickbar
Nameplate rating	214 BPH
Dimensions	48" Diameter x 1"
Limitations	Draft 3"
Ops Characteristics	3" discharge
EDRC 20% efficiency factor	214 BPH X 24 HRS X 20% = 1027 BPD
Recovery in 48 hours	2,054 bbls
Unit Weight	26 #
Type	Suction
Accessories	Pump

#### Response Contractor Skimmers:

Equipment maintained by Alaska Chadux is listed in Section 3.6 of the Alaska Chadux Response Manual. A copy is on file with USCG OSRO Database program, ADEC, and VML's Anchorage office.

### 3.6.4 VESSELS DESIGNATED FOR OIL SPILL RECOVERY OPERATIONS AND ADDITIONAL VESSELS

- Escort Tug
- VML Tug/barge. VML tugs and barges will frequently be available in the vicinity of the chartered tanker as they will be lightering product from the chartered tanker for local delivery.
- Work Boat on Tug
- Alaska Chadux vessels are listed in Section 3.6 of their Response Manual contained in Appendix H.

### 3.6.5 PUMPING, TRANSFER, TEMPORARY STORAGE & LIGHTERING EQUIPMENT

#### **VML Chartered Tankers:**

Specific pumping and transfer information will be provided in the Spot Charter Packet provided to ADEC prior to the vessel operating in Alaska state waters.

#### **VML Barges:**

Each barge has 2 cargo pumps, (1) 6" Blackmer with a transfer rate of up to 750 gpm and (1) 4" Blackmer with a transfer rate of up to 528 gpm. The cargo pumps can transfer through any of the manifold discharge pipes which includes (1) 6" discharge connection, (1) 4" discharge connection and (1) 3" discharge connection on each side of the barge.

The spill response pump available on each VML tow:

3" Portable transfer pump

Engine = diesel

Capacity = 400 gpm with 10' head

This pump meets the Final Compliance Agreement requirements for transferring cargo from VML barges within the prescribed time frame.

#### Fire pumps

(1) Barnes 10ICU electric powered primary fire pump and (1) backup pump are located in the engine room of the tug.

#### 2" transfer pump

All VML owned tugboats carry a portable 2" transfer pump or equivalent small portable pump.

#### **Response Contractor Pumps:**

Alaska Chadux pumps are listed in Section 3.6 of their Response Manual contained in Appendix H.

#### **VML Lightering Systems:**

In accordance with the APD&T Agreement for Final Compliance, each tow carries on board a pump which is capable of lightering the contents of the largest tank on the barge to another vessel within 24-hours. Adequate hoses and fittings for each pump are maintained either on the tug or the barge.

- See VML Pumps above.
- Refer to Section 1.6.9 Recovered Oil Transfer and Storage and 1.6.10 Temporary Storage
- Refer to Section 2.1.5 Transfer Procedures
- Refer to the APD&T Agreement for Final Compliance (December 2009)

#### **Response Contractor Lightering System:**

Additional equipment from Alaska Chadux that may be used for lightering operations are listed in Section 3.6 of their Response Manual contained in Appendix H.

Resolve Salvage & Fire (Americas) has additional lightering equipment located in Anchorage with a 24 hr transfer capability in excess of 200,000 bbls. A listing of the equipment can be found in the Contract found in Section 3.13.

#### **VML Temporary Storage:**

Refer to Section 1.6.9 Recovered Oil Transfer and Storage and 1.6.10 Temporary Storage.

#### **Response Contractor Temporary Storage:**

Chadux temporary storage systems are listed in Section 3.6 of their Response Manual contained in Appendix H.

### 3.6.6 EQUIPMENT STORAGE AND MAINTENANCE

#### Vessel Response Equipment Storage:

- The skimmer for each tow (tug and barge combination) is stored in an aluminum-framed plywood sheeted box marked 'Skimmer'. This box has a full sized door with a quick release latch. This box is stored on the stern of the barge near the valve containment area.
- The containment boom for each tow (tug and barge combination) is stored on deck or on top of the machinery or shelter space of the barge during the operating season.
- Hoses are stored on a hose reel or loose on the deck of the barge.
- The portable pump is stored on the stern of the barge.
- Consumables such as absorbents and PPE are stored on the tug.

#### Inspections of Spill Equipment:

- Before each fuel transfer and at each deployment exercise, the containment boom, skimmer, skimmer's pump, and hoses are visually inspected.
- Annually, during the spring preseason maintenance period, all spill response equipment is removed from its storage area/storage box and inventoried. Equipment is inspected (including startup, run, and test), replaced, or repaired as required. Records are maintained at the VML Anchorage office.
- During the operating season, equipment in need of repair is exchanged for an equal replacement. All mechanical equipment is serviced and repaired at VML's repair facility in Aleknagik. However, another repair facility may be used where logistically appropriate. VML repair crews may also be flown to a vessel to make repairs.
- The equipment list at Section 3.6.1 is used for inspections.
- All VML communications equipment on board vessels is the responsibility of the vessel master. Equipment not used on a daily basis is tested on a monthly basis as part of the monthly spill response equipment inventory and maintenance protocol.

## **3.7 NON-MECHANICAL RESPONSE INFORMATION**

VML does not intend on using on-water dispersants or in-situ burning. However, in-situ burning operations may be applicable on a case by case basis for shoreline cleanup. In-situ burning would entail ignition of pooled oil along the shoreline and contaminated vegetation by use of a propane weed burner. In-situ burning would be conducted only under the following conditions:

- Unified Command Approval
- Development of an In-situ Burning Application
- Approval of RRT, including approval of all parties that must approve an in-situ burning application
- Fire Control in place to ensure that the fire is controlled and does not spread.

## 3.8 RESPONSE CONTRACTOR INFORMATION

The primary resources available to meet the RPS for the VML chartered tankers are resources owned by Vitus Marine, LLC. and are located on the VML barges. Additional resources named in this plan belong to the PRACs/OSROs and other operators whom have contracts in place for the use of response resources in the event of an emergency (see Sections 3.8.1 and 3.8.2).

*The Qualified Individual and Alternate Qualified Individuals have the authority to activate Response Action Contractors (OSROs) and their resources to a spill site.*

VML is a member of the Alaska Chadux Corporation which is the Oil Spill Response Organization (OSRO) for VML. The Statement of Contractual Terms attached in the following 2 pages.

### **Alaska Chadux Corporation (ACC)**

Office (907) 348-2365 (24 hr.—duty officer will take call)  
Fax (907) 348-2330  
Robert Heavilin, GM (907) 529-2530 Cell  
(888) 831-3438 Toll free (24 hr)

Chadux provides response resources in the following areas of operation:

- Captain of the Port Zone for Western Alaska

Alaska Chadux is registered as a Response Action Contractor with the Alaska Department of Environmental Conservation (ADEC), per the requirements of Alaska Statute. A list of ACC equipment and sub contractors is on file with ADEC.

ACC maintains, either through ownership or under contract, response equipment in Anchorage, Kenai, Kodiak, Valdez, Cordova, Dillingham, Bethel, Nome, Barrow, and Dutch Harbor. (See Section 3.6 of the Chadux Response Manual) Wildlife hazing equipment is maintained at all hubs.

A copy of the Statement of Contractual Terms between VML and Chadux is on file in the VML Anchorage office.

## STATEMENT OF CONTRACTUAL TERMS

(PLEASE COMPLETE BOTH SIDES)

AS REQUIRED UNDER AS 46.04.30, AS 46.04.035 and 18 AAC 75.445(i)(1) in fulfillment of a requirement for registration of primary response action contractors and for approval of an Oil Discharge Prevention and Contingency Plan.

PLAN TITLE: Vitus Marine, LLC. Alaska Tank Barge Operations

PLAN HOLDER: Vitus Marine, LLC.

This statement is a certification to the Alaska Department of Environmental Conservation summarizing the contract between Vitus Marine, LLC. the oil discharge prevention and contingency plan holder (hereinafter “PLAN HOLDER”), and Alaska Chadux Corporation the oil spill primary response action contractor or a holder of an approved oil discharge prevention and contingency plan under contract (hereinafter “CONTRACTOR”), executed on March 07, 2011, and the original of which is located at Vitus Marine, LLC., Anchorage, Alaska as evident of the PLAN HOLDER’s access to the containment, control, and/or cleanup resources required under standards at AS 46.04.030 and 18 AAC 75.400 – 18 AAC 75.495. The PLAN HOLDER and the CONTRACTOR attest to the Department that the provisions of this written contract clearly obligate the CONTRACTOR to:

- (A) provide the response services and equipment listed for the CONTRACTOR in the oil discharge and contingency plan;
- (B) respond if a discharge occurs;
- (C) notify the PLAN HOLDER immediately if the CONTRACTOR cannot carry out the response actions specified in this contract or the contingency plan;
- (D) give written notice at least 30 days before terminating this contract with the PLAN HOLDER;
- (E) response to a Department-conducted discharge exercise required of the PLAN HOLDER; and,
- (F) continuously maintain in a state of readiness, in accordance with industry standards, the equipment and other spill response resources to be provided by the CONTRACTOR under the contingency plan.



### 3.8.1 CONTRACT BETWEEN VML AND BRISTOL ALLIANCE FUELS

#### STATEMENT OF CONTRACTUAL TERMS

(PLEASE COMPLETE BOTH SIDES)

AS REQUIRED UNDER AS 46.04.30, AS 46.04.035 and 18 AAC 75.445(i)(1) in fulfillment of a requirement for registration of primary response action contractors and for approval of an Oil Discharge Prevention and Contingency Plan.

PLAN TITLE: Vitus Marine, LLC Chartered Tanker Operations

PLAN HOLDER: Vitus Marine, LLC

This statement is a certification to the Alaska Department of Environmental Conservation summarizing the contract between Vitus Marine, LLC the oil discharge prevention and contingency plan holder (hereinafter “PLAN HOLDER”), and Bristol Alliance Fuels the oil spill primary response action contractor or a holder of an approved oil discharge prevention and contingency plan under contract (hereinafter “CONTRACTOR”), executed on July 01, 2011, and the original of which is located at Vitus Marine, LLC, Anchorage, Alaska as evident of the PLAN HOLDER’s access to the containment, control, and/or cleanup resources required under standards at AS 46.04.030 and 18 AAC 75.400 – 18 AAC 75.495. The PLAN HOLDER and the CONTRACTOR attest to the Department that the provisions of this written contract clearly obligate the CONTRACTOR to:

- (A) provide the response services and equipment listed for the CONTRACTOR in the oil discharge and contingency plan;
- (B) respond if a discharge occurs;
- (C) notify the PLAN HOLDER immediately if the CONTRACTOR cannot carry out the response actions specified in this contract or the contingency plan;
- (D) give written notice at least 30 days before terminating this contract with the PLAN HOLDER;
- (E) response to a Department-conducted discharge exercise required of the PLAN HOLDER; and,
- (F) continuously maintain in a state of readiness, in accordance with industry standards, the equipment and other spill response resources to be provided by the CONTRACTOR under the contingency plan.



### 3.8.2 CONTRACT BETWEEN VML AND PACIFIC FISHING ASSETS

#### STATEMENT OF CONTRACTUAL TERMS

(PLEASE COMPLETE BOTH SIDES)

AS REQUIRED UNDER AS 46.04.30, AS 46.04.035 and 18 AAC 75.445(i)(1) in fulfillment of a requirement for registration of primary response action contractors and for approval of an Oil Discharge Prevention and Contingency Plan.

PLAN TITLE: Vitus Marine, LLC Chartered Tanker Operations

PLAN HOLDER: Vitus Marine, LLC

This statement is a certification to the Alaska Department of Environmental Conservation summarizing the contract between Vitus Marine, LLC the oil discharge prevention and contingency plan holder (hereinafter “PLAN HOLDER”), and Pacific Fishing Assets the oil spill primary response action contractor or a holder of an approved oil discharge prevention and contingency plan under contract (hereinafter “CONTRACTOR”), executed on July 01, 2011, and the original of which is located at Vitus Marine, LLC, Anchorage, Alaska as evident of the PLAN HOLDER’s access to the containment, control, and/or cleanup resources required under standards at AS 46.04.030 and 18 AAC 75.400 – 18 AAC 75.495. The PLAN HOLDER and the CONTRACTOR attest to the Department that the provisions of this written contract clearly obligate the CONTRACTOR to:

- (A) provide the response services and equipment listed for the CONTRACTOR in the oil discharge and contingency plan;
- (B) respond if a discharge occurs;
- (C) notify the PLAN HOLDER immediately if the CONTRACTOR cannot carry out the response actions specified in this contract or the contingency plan;
- (D) give written notice at least 30 days before terminating this contract with the PLAN HOLDER;
- (E) response to a Department-conducted discharge exercise required of the PLAN HOLDER; and,
- (F) continuously maintain in a state of readiness, in accordance with industry standards, the equipment and other spill response resources to be provided by the CONTRACTOR under the contingency plan.

I hereby certify that, as representative of the PLAN HOLDER, I have the authority to legally bind the PLAN HOLDER in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law:

*Justin Chron*                      7/20/11  
Signature                                      Date

Title: CFO

FOR: Vitus Marine, LLC  
PLAN HOLDER

I hereby certify that, as representative of the CONTRACTOR, I have the authority to legally bind the CONTRACTOR in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law:

*[Signature]*                      7-1-11  
Signature                                      Date

Title: Manager

FOR: Pacific Fishing Assets  
CONTRACTOR

## 3.9 PERSONNEL TRAINING

VML Basic Spill Response Personnel Training Matrix:

Training Course	Training Description & Duration	Frequency Attendance
24-Hour HAZWOPER	<ul style="list-style-type: none"> <li>• Provide responders with hazardous materials response training in compliance with OSHA requirements for general site worker</li> <li>• 24 hours</li> </ul>	Initial hire All crew member (ex cook)
HAZWOPER Supervisor	<ul style="list-style-type: none"> <li>• Provide response supervisors with additional hazardous materials response supervisory and regulatory training in compliance with OSHA requirements for HAZWOPER Supervisor</li> <li>• 8 hours</li> </ul>	Initial hire/assignment Select crew members
8-Hour HAZWOPER Refresher	<ul style="list-style-type: none"> <li>• Provide responders with hazardous materials response refresher training in compliance with OSHA requirements for general site worker</li> <li>• 8 hours</li> </ul>	Annual refresher after completion of 24-Hour
Respiratory Protection	<ul style="list-style-type: none"> <li>• Use and limitations of respiratory PPE</li> <li>• Cleaning and maintenance requirements</li> <li>• Proper donning and doffing of respirators</li> <li>• Proper fit checking</li> <li>• Fit testing</li> </ul>	Initial assignment of position requiring respiratory protection and annual refresher
Hazard Communications	<ul style="list-style-type: none"> <li>• Hazard communication requirements</li> <li>• Hazardous materials in the workplace</li> <li>• Material Safety Data Sheets</li> </ul>	Initial hire and annually
Personal Protective Equipment	<ul style="list-style-type: none"> <li>• Use and limitations of PPE</li> <li>• Proper donning and doffing of PPE</li> <li>• Cleaning, inspection and maintenance requirements</li> <li>• Proper selection of PPE</li> </ul>	Annually All crew members
ICS	<ul style="list-style-type: none"> <li>• Basic Incident Command System Training under National Incident Management System</li> <li>• Reinforced through drills and exercises</li> </ul>	During first year All crew members (ex cook) and Incident Management Team members
Contingency Plan/VRP Familiarization	<ul style="list-style-type: none"> <li>• Emergency response actions</li> <li>• Notification and reporting requirements</li> <li>• Shipboard spill mitigation measures</li> </ul>	Annually All crew members (ex cook) and Incident Management Team members
Oil Spill Response Tactics	<ul style="list-style-type: none"> <li>• Fate and effect of oil</li> <li>• Response deployment strategies</li> <li>• Recovery operations</li> <li>• Protection of sensitive areas</li> <li>• Shoreline cleanup</li> <li>• Equipment deployment and operation</li> <li>• Reinforced through drills and exercises</li> </ul>	Annually All crew members (ex cook)

Tracking and Surveillance	<ul style="list-style-type: none"> <li>• Basic visual observation of oil on water</li> <li>• Aerial tracking</li> </ul>	Select crew members Every 3 years
Waste Management	<ul style="list-style-type: none"> <li>• Waste types</li> <li>• Regulatory requirements and permitting</li> <li>• Temporary storage</li> <li>• Final disposal</li> </ul>	Bi-annually Select crew members and IMT members
Decontamination	<ul style="list-style-type: none"> <li>• Personnel and equipment decontamination</li> <li>• Vessel decontamination</li> <li>• Wet and dry techniques</li> <li>• Waste management and reduction</li> </ul>	Bi-annually All crew members (except cook) and select IMT members

\*Confined Space Entry program includes annual refreshers (VML or 3<sup>rd</sup> party instruction) and can also be called Marine Confined Space Entry--also requiring annual refresher training. Shipyard Competent Person qualification does not require scheduled refresher training.

The Qualified Individual and Alternate Qualified Individuals are located within the United States, are fluent in English and are familiar with the implementation of the Vessel and/or Facility Response Plans in accordance with 33 CFR 154.1026 and 155.1026. They are available on a 24-hour basis to authorize implementation of the Response Plan should a spill occur.

The vessel Person in Charge (PIC) is designated and certified by VML to have sufficient training and experience with the relevant characteristics of the vessel on which he or she is engaged, including the cargo for transfer, the cargo-containment system, the cargo system (including transfer procedures, and shipboard-emergency equipment and procedures), the control and monitoring systems, the procedures for reporting pollution incidents to safely conduct a transfer, and holds a "Tankerman-PIC" or "Tankerman-PIC (Barge DL)" endorsement issued under 46 CFR part 13 that authorizes the holder to supervise the transfer of the particular cargo involved meeting the requirements of 33 CFR 155.710. The vessel PIC is familiar with Federal and State law regulating the transfer of dangerous liquids.

The crew of each tug boat receives instruction in the operation and maintenance of tug and barge components from VML management personnel to include deployment of emergency equipment.

Crew training, including Spill Prevention and Response training, is the responsibility of VML. All vessels and vessel personnel under operational control of the VML Oil Discharge Prevention and Contingency Plan will be integrated into the VML prevention programs as listed in Section 2.1. The Manager of VML will ensure that all vessel crewmembers are trained in accordance with 18 AAC 75.007(d), 18 ACC 75.020, 18 AAC 75.425(e)(3)(l) and 18 AAC 75.445(j).

## PREVENTION, RESPONSE, and SAFETY TRAINING (PRST)

VML Basic Spill Prevention Training Matrix:

Training Course	Training Description & Duration	Frequency Attendance
Spill Prevention	<ul style="list-style-type: none"> <li>• Deck spill containment systems</li> <li>• High level alarms and tank gauges</li> <li>• Spill prevention regulations</li> <li>• 4 hour</li> </ul>	Annually All crew members
Deployment Exercises	<ul style="list-style-type: none"> <li>• Shipboard response equipment deployment and operation</li> <li>• Participate in any regulatory agency initiated drills</li> <li>• Participate in PREP drills and exercises</li> </ul>	Annually All crew members
Vessel Familiarization	<ul style="list-style-type: none"> <li>• Vessel orientation for new crew members</li> <li>• Safety orientation, safety equipment locations</li> <li>• Shipboard assignments and policies</li> </ul>	Initial vessel assignment All crew members

Basic Firefighting	<ul style="list-style-type: none"> <li>• Chemistry of fire</li> <li>• Fire prevention</li> <li>• Firefighting equipment</li> <li>• SCBA and protective clothing</li> <li>• 16 hours</li> </ul>	Initial hire All Officers and select crew members
Advanced Firefighting	<ul style="list-style-type: none"> <li>• Fire prevention</li> <li>• Firefighting equipment</li> <li>• Organizing fire response teams</li> <li>• Firefighting safety and fire control planning and procedures</li> <li>• 32 hours</li> </ul>	Initial hire All officers and select crew members Renew every 5 years
Elementary First Aid	<ul style="list-style-type: none"> <li>• Adult CPR and basic first aid</li> </ul>	Initial hire All officers and select crew members Renew every 2 years
Tankerman-PIC (Barge DL)	<ul style="list-style-type: none"> <li>• Study of inert gas systems</li> <li>• Crude oil wash operations</li> <li>• Enclosed space entry</li> <li>• Cargo tank venting and vapor control</li> <li>• Oil pollution regulations</li> <li>• Cargo transfer operations</li> </ul>	Initial hire Select crew members
Radar	<ul style="list-style-type: none"> <li>• Radar theory, operation and interpretation of display</li> <li>• River navigation and collision avoidance</li> </ul>	Initial hire All Masters and Mates Renew every 5 years
Vessel Security	<ul style="list-style-type: none"> <li>• Onboard security procedures including requirement to notify deck watch officer before taking corrective action</li> </ul>	Annually All crew members
Shipyard Competent Person	<ul style="list-style-type: none"> <li>• Confined space entry</li> <li>• Air monitoring</li> <li>• Hazardous gas monitoring</li> </ul>	Initial Select crew members
Emergency Towing System	<ul style="list-style-type: none"> <li>• Training includes procedures for the proper deployment of Emergency Towing System</li> </ul>	Annually All crew members

VML contracts Wolf Management Group, Inc. of Homer, Alaska to conduct annual training. VML has created a basic Prevention, Response, and Safety Training program (PRST) that is combined with basic Hazwoper and marine refresher training. The annual spring training incorporates the vessel crew members (excluding cook) and VML key management personnel. The annual spring training includes the following:

1. Rules and Regulations, covered at C-plan Review and at Hazwoper training  
State of Alaska Pollution laws (including prevention requirements).  
US Federal Pollution laws.
2. Oil Spill Response, covered at C-plan Review and at Hazwoper training (all vessel crew with exception of cook)  
VML Oil Discharge Prevention and Contingency Plan Review, Part I:  
Emergency Response Initial Action Plan  
Notification and Reporting Requirements.  
Procedures to stop the discharge  
Boom deployment and strategies – procedures for deployment and effective configurations.

Response Recovery Equipment Operation – skimming and pump equipment on board including startup and operating procedures.  
Recovered oil transfer and temporary storage.  
Passive Wildlife Hazing

Operations (Captains/Mates and VML Management Team) Management Table Top Drill and ICS:

Response deployment strategies.  
Procedures to stop the discharge.  
Recovery operations.  
Recovered oil transfer and temporary storage.  
Protection of sensitive areas and wildlife.  
On-scene safety officer's duties.  
Communications  
Logistics

Incident Command Management Table Top Drill and ICS:

Response actions  
Disposal of recovered oil.  
Shoreline cleanup.  
Safety officers duties.  
Site specific safety plan.  
On-site organization.  
Decontamination procedures.

3. Spill Prevention.

On-board requirements of the APD&T Agreement for Final Compliance referenced in Part II  
PREP drills/exercises

Tankerman refresher training:

Typical Barge/terminal transfer procedures.  
Overview of typical barge tank characteristics.  
Cargo piping, leak detection, and overfill protection.

4. Safety Training

Refer to the VML Safety Manual  
VML Responsible Carrier Program operation's manual review

Hazwoper refresher training:

Respiratory protection  
Hazcom  
Personal protective equipment  
On-site work group organization  
MSDS review

5. Fire Fighting

Topics include drills and safety meetings, emergency response, visual and radio distress signals, abandoning ship, firefighting, fire prevention, and egress. Masters, Mates and Engineers have received Marine Basic Fire Fighting training to satisfy requirements of the Coast Guard licensing process.

6. First Aid Training

The vessel crew maintains current First-Aid and CPR cards.

7. Toxic Gases And Explosive Mixtures

VML has trained and designated specific personnel as shipyard competent persons through courses recognized by the USCG and the NFPA. A minimum of one shipyard competent person is always on board during cargo transportation operations.

8. QI Training

The QI and alternate QI(s) shall receive the following in-house training:

- Annual VRP/CPLAN familiarization
- Annual Review of QI duties and responsibilities. Section 3.3
- Annual Review of Notification Procedures (both state and federal). Section 1.1 and 1.2
- Review of vessel operational characteristics is accomplished through involvement in operations on a daily basis
- Periodic review of National Contingency Plan, Alaska Region Unified Plan
- Contractor provided OSHA training per 29 CFR 1910 including annual HAZWOPER refresher
- Participate in quarterly QI notification exercises per PREP
- Participate in annual spill management tabletop exercises per PREP

The QI and alternate QI(s) shall receive the following outsourced training:

- Initial QI/Spill Manager Training course by CCMS-Alaska/Wolfe Management Group or equivalent
- Review of ICS videos by NFES. (to include 1507 Unified Command, 2266 Media, and 2267 Community Relations.)
- Participate in OSRO, state, and federal training courses as offered and available

9. Other Training

VML conducts regular Safety Meetings for its personnel. Topics are changed periodically and may include:

Cold Water Survival  
Safe barge cleaning techniques.  
Safe tank entry.  
Safe handling of welding equipment.  
Safe forklift operation.  
Protective clothing and its use.  
Drug and alcohol abuse.  
Oil discharge equipment and its use.  
Electric Shock.  
Lifting and bending strains.  
Burns.  
Use of fire extinguishers.  
Equipment maintenance.  
Storage of Ox/Acetylene bottles.

Annually all licensed personnel review drug and alcohol testing procedures and protocol and renew drug and alcohol testing equipment on board the tug.

10. Documentation of training is maintained in the employee's training folder at Anchorage.

11. VML Chartered Tank Vessel Crew Training

Tank vessel officers and crew members will comply with flag state mariner licensing requirement for the position that they occupy, including the requirements of SOLAS, and the Standards, Training, Certification & Watchkeeping – 95 Code (STCW-95). The STCW-95 specifies required training and skill proficiencies for mariners engaged in international voyages.

Position	Basic Safety Training <sup>1</sup>	Tanker Cargo Operations	Watchkeeping Arrangements & Principals	Pollution Prevention	Licenses Required
Master	X	X	X	X	Master
First Mate	X	X	X	X	Mate
Second Mate	X	X	X	X	Mate
Navigational Watchkeeping Officer			X		Master Mate
Chief Engineer	X	X	X	X	Chief Engineer
Second Engineer	X	X			Engineer
Rating	X	X		X	OS/AB/QMED

**1. Basic Safety Training**

- (I) Personal Survival Techniques
- (II) Fire Prevention and Fire Fighting
- (III) Elementary First Aid
- (IV) Personal Safety & Social Responsibility

The Records of Training for STCW-95 required training are maintained in a training record book for each individual. The certification is proof of successfully meeting the training and proficiency requirements of the code.

Additional training records for shipboard drills and exercises are maintained onboard the vessel.

The Master, C. Mate, and any deck officers involved in the transfer of cargo will be required to review the spill notification requirements and the Tank Vessel Emergency Action Checklist located in Section 1.1.2 ,

**Qualified Individual Notification & Emergency Procedures Drill Log**

Date : \_\_\_\_\_ Vessel Name: \_\_\_\_\_

Time Started : \_\_\_\_\_ Time completed: \_\_\_\_\_

Name of Qualified Individual Notified: \_\_\_\_\_

Method of contact (telephone, pager, radio, other) \_\_\_\_\_

Names of participants: \_\_\_\_\_

Emergency Scenario : \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Description of exercise : \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Deficiencies or Lessons Learned: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Signed Facility Supervisor \_\_\_\_\_

For Anchorage office use:

Which core components of plan were exercised: (notifications, staff mobilization, unified command, response management team, discharge control, assessment, containment, recovery, protection, disposal, communications, transportation, personnel support, equipment maintenance and support, procurement, documentation):

\_\_\_\_\_  
\_\_\_\_\_

Certifying Signature \_\_\_\_\_ Date: \_\_\_\_\_

Spill Management Team Tabletop Exercise Log

Date : \_\_\_\_\_ Location of Table-top : \_\_\_\_\_

Time Started : \_\_\_\_\_ Time completed: \_\_\_\_\_

Exercise or Actual Event: \_\_\_\_\_

Names of participants: \_\_\_\_\_

Response Plan Scenario used: (Average Most Probable, Maximum Most probable, Worst Case)

Size of spill: \_\_\_\_\_

DESCRIBE HOW THE FOLLOWING OBJECTIVES WERE EXERCISED:

Spill management team's knowledge of oil-spill response plan: \_\_\_\_\_  
\_\_\_\_\_

Proper Notifications: \_\_\_\_\_  
\_\_\_\_\_

Communications System: \_\_\_\_\_  
\_\_\_\_\_

Spill management team's ability to access contracted oil spill removal organizations: \_\_\_\_\_  
\_\_\_\_\_

Spill management team's ability to coordinate with OSC, state and applicable agencies:  
\_\_\_\_\_  
\_\_\_\_\_

Spill management team's ability to access ESA resource information in the Area Contingency Plan.  
\_\_\_\_\_  
\_\_\_\_\_

Which core components of plan were exercised: (notifications, staff mobilization, unified command, response management team, discharge control, assessment, containment, recovery, protection, disposal, communications, transportation, personnel support, equipment maintenance and support, procurement, documentation):  
\_\_\_\_\_  
\_\_\_\_\_

Person responsible for any corrective actions: \_\_\_\_\_  
\_\_\_\_\_

Certifying Signature \_\_\_\_\_ Date: \_\_\_\_\_

## 3.10 PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS

Priorities for Oil Spill Response are as follows:

- 1) Safety of personnel and responders
- 2) Stop the flow of oil
- 3) Contain and Recovery using mechanical means
- 4) Protect Environmentally Sensitive Areas

Protection of Environmentally Sensitive Areas requires the following:

- 1) Determine the oil spill trajectory taking into account current flow, wind, dispersion, and evaporation factors.
- 2) Determine what environmentally sensitive areas are within this projected zone
- 3) Prioritize the protection activities based on sensitivities to ensure that the most protection is afforded by response actions.

This process occurs in the incident command center under the oversight of the Unified Command. This section contains information to aid in identifying environmentally sensitive areas and making decisions on managing response actions to minimize damage to those areas, and the fish and wildlife resources that inhabit those areas. Also see Section 1.6.11 for agency contacts.

In addition to company owned resources, VML is a member of the Alaska Chadux Corporation (ACC), a certified response action contractor (see Section 3.8). When necessary, the resources of ACC will be utilized for protection of environmentally sensitive areas. A copy of ACC Manual is at the VML office.

### 3.10.1 IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS

See Section 3.1 of this plan for potential route information for VML vessels. During ice free seasons (VML's operational period), almost all of the Alaska coast and river systems may be considered "environmentally sensitive" based on the presence of wildlife and wildlife habitat areas. However, there are areas that are more sensitive than others are. Additionally, sensitivity variations exist.

Most comprehensive and updated sources of information on locations of environmentally sensitive areas are the subarea plans, found on the following website:

SUBAREA PLANS: <http://www.asgdc.state.ak.us/maps/cplans/subareas.html> or see Appendix B of this plan.

The subarea plans include the following information:

- Land Use and Management Map tools
- Biologically Sensitive Areas Maps
- Most Environmentally Sensitive Area Maps (MESAS)
- Environmental Sensitivity Index (ESI) Maps
- Geographical Response Strategy Maps

Additional state maps containing information may be found at <http://www.asgdc.state.ak.us/>

Resource agency personnel and Coastal Zone Resource Service Area personnel may maintain additional sources of information. Section 1.2 of this plan includes the contact numbers for the Coastal Zone Resource Service Areas, ADF&G and the US Fish & Wildlife Service regional refuge offices. In the event of a spill, more site-specific information of environmentally sensitive areas should be obtained from those sources.

Information on identifying sensitive areas is also generally available from local residents. Names of local residents, city or village officers and other organization representatives can be obtained through the Alaska Department of Community and Regional Affairs (DCRA) community database in the Internet. See section 1.4.8 Web Sites.

There are no water intakes or recreational beaches the Yukon, Kuskokwim, and Tanana Rivers and their tributaries as the rivers are extremely silty. The Nushagak is less silty but equally undeveloped.

The following National Wildlife Refuges may be at risk in the event of an oil spill:

**Yukon River and its tributaries:**

- Yukon Flats National Wildlife Refuge.
- Nowitna National Wildlife Refuge.
- Koyukuk National Wildlife Refuge.
- Innoko National Wildlife Refuge.
- Yukon Delta National Wildlife Refuge.

**Kuskokwim River and its tributaries**

- Yukon Delta National Wildlife Refuge.

**Norton Sound, parts of the Bering Sea, and the Kuskokwim Bay**

- Yukon Delta National Wildlife Refuge.

**Bristol Bay**

- Togiak National Wildlife Refuge.
- Izembeck National Wildlife Refuge.

**Cook Inlet**

- Swanson River National Wildlife Refuge.

VML maintains copies of the Alaska Bush Phone Directory to obtain local phone numbers.

Maps and habitat information are maintained by the PRACs (Alaska Chadux) for VML use during a spill response. Environmentally sensitive areas have been identified by ADF&G and specific information on critical resources are published in color maps called the ADF&G Regional Habitat Management Guides (1985). Regions, map numbers and resources are listed below:

*The following ADF&G Regional Habitat Management Guides are maintained and available from ADF&G Habitat Division:*

**Western Region** (includes Lower Yukon/Kuskokwim/Bering Sea)

<u>Map #</u>	<u>Resources</u>
5	Pacific herring
8	Brown bear, Pacific walrus, Belukha whale
11	Ducks, geese
14	King crab

**Southwest Region** (Kodiak/Inner Bristol Bay (IBB), Alaska Peninsula/Outer Bristol Bay (OBB), and Aleutians/Pribilof areas)

<u>Map #</u>	<u>Resources</u>
3	Marine Mammals (OBB)
4	Marine Mammals (IBB)
6	Sea otter (OBB)
7	Sea otter (IBB)
9	Brown bear (OBB)
10	Brown bear (IBB)
15	Ducks, seabirds (OBB)
16	Ducks, seabirds (IBB)

18	Bald eagles (OBB)
19	Bald eagles (IBB)
21	Tundra swans (OBB)
22	Tundra swans (IBB)
28	Groundfish, Pacific herring (OBB)
29	Groundfish, Pacific herring (IBB)
36	Razor clam, shrimp (OBB)
37	Razor clam, shrimp (IBB)

### 3.10.2 SEASONAL CONSIDERATIONS

As a general rule, the marine organisms most likely to be impacted by a discharge into a sensitive area are most at risk during spring, summer and fall months. In winter, ice and extreme low temperatures result in the absence of mobile marine creatures from the shoreline areas. Salt water ducks and some seabirds, such as old squaw ducks and gulls, remain present through out the ice-free areas of Alaska all year round. In winter months, raptors such as eagles and ospreys concentrate near areas of food, such as river mouths and harbor areas. Marine mammals are present year round in the oceans and bays.

Invertebrates and other small organisms found in the intertidal zone are also less likely to be impacted during winter months. Based on the presence of ice and scouring, they may migrate to the sub tidal zones during these periods.

Spring and fall months are high risk times for almost all coastal areas, especially river mouths, salt marshes, protected bays and lagoons. Out migrating salmon smolt are present in the nearshore areas in most of the Alaska coastline areas during the period from May to July. Spawning herring, smelt, capelin and candlefish are typically found in shallow beach areas throughout the coast of Alaska during the spring months. In some areas, dungeness crab also frequent inter tidal during this time, making them vulnerable to oil discharged into that environment.

Migratory waterfowl are present all across Alaska in the spring during their annual migration. Major flyway stopping areas include the Copper River Delta area, the west side of Cook Inlet and the Yukon - Kuskokwim Delta area. These same birds reverse that track beginning in mid to late August. Major concentrations of shore birds are present in all areas of Alaska, with highest concentrations in the summer months. These birds frequent the intertidal areas and will be at risk from a discharge into those areas.

Marine vegetation, including eelgrass flats such as Izembeck Lagoon on the north side of the Alaska Peninsula north of False Pass are most at risk to oil spills during the summer months of high photosynthesis.

#### Finfish

In general, most finfish will be more vulnerable to spills in the early spring when they are out migrating from lake systems to saltwater ( salmon and steelhead ), or in nearshore marine waters for spawning (herring, smelt). Consult with local ADF&G and fishermen to identify key areas of concern

**TABLE 3.10-1  
SALMON GENERAL RUN TIMING AND EARLY LIFE HISTORY INFORMATION, BRISTOL  
BAY AREA--GENERALLY APPLICABLE IN ALL ALASKAN WATERS.**

Species	Adults		Juveniles	
	Enter Fresh Water	Spawning	Emerge from Gravel	Out migration
Chinook	Late May to mid-July	Late July to early September	April to June	May and June
Sockeye	Mid-June to mid-August	Late July to Late October	Mid-March to mid-May	Late May to mid-July
Coho	Mid-July to mid-September	Early September to late November	April to June	May and June
Pink	Mid-July to mid-August	Mid-August to mid-September	Late April to May	Early June
Chum	Mid-June to mid-August	Late July to late August	Late April to May	Probably June

Early = 1st to 10th of month      Mid = 11th to 20th of month      Late = 21st to end of month

**Source:** Alaska Habitat Management Guide, Western Region./ Pacific Salmon Life Histories, Groot & Margolis

Waterfowl

During spring and fall migrations, hazing of spill sites to avoid mass landings of migrating birds into a spill area will be important. Consult with agencies and local natives to determine typical flyways and landing sites. During mid summer, many waterfowl are in molt, and cannot fly. It is important to consult with local ADF&G and USF&W as soon as possible to verify these seasonal and local wildlife conditions before conducting any invasive response efforts adjacent to wildlife areas. See Section 1.6.11 for permits for hazing requirements.

Seasonal Concerns on Aquaculture

Salmon hatchery facilities and aquaculture facilities in the State of Alaska can be found in the applicable Sub Area C-plan see Appendix B. As with wild finfish populations, fish are typically held in salt water rearing pens from April through June, and are especially at risk from oil in the water at that time. Immediate notice to all operators should be made if product is discharged. In addition, ADNR has a list of current aquaculture sites in the State of Alaska. See Table 1.2-6 for contacts for ADNR. There are no hatcheries in the VML operating area.

Human Seasonal Activities

Human activities in environmentally sensitive areas should be taken into account in planning any spill response strategies including shoreline protection. Care should be taken not to deploy boom in containment configurations that may concentrate oil that would otherwise dissipate in the open water thereby impacting beach environments and human consumption activities.

**TABLE 3.10-2  
SEASONAL TIMING OF SUBSISTENCE ACTIVITIES**

ACTIVITY	TIME OF YEAR	LOCATION
Hunting	Late Summer/Fall/Early Winter and early spring	Upland and intertidal areas
Berry Gathering	Late summer	Up land areas
Shell fish gathering	Limited, Year Round	Intertidal areas
Herring Fishing	Limited /Spring	near shore areas
Salmon Fishing	Summer/Fall	Beaches, bays and rivers
Waterfowl harvesting	Fall	Bays, lakes and marshes
Aquatic Plants	Limited, Year Round	limited beaches
Groundfish	Limited, Year Round	open water

Mitigating Seasonal Effects

The toxic products carried as cargo will be come less toxic to the environment as they are exposed to the open atmosphere since the most toxic components of the products are subject to severe evaporation. Seasonal conditions may affect the toxicity of these products if they are spilled into the environment as follows:

- Extreme wind may accelerate natural evaporation rates, decreasing toxicity
- Heavy sea conditions may increase natural dispersion rates
- Extreme cold may slow the rate of evaporation
- Ice and snow conditions may slow the spread of discharged product
- Heavy rainfall may increase natural dispersion and decrease toxicity by dilution

**3.10.3 PRIORITIZATION OF SENSITIVE AREAS:**

Prioritization of sensitive areas will be conducted in the incident command center under the supervision of the Unified Command with participation and assistance from resource agencies and other knowledgeable parties (land managers, land owners, and other local concerns). The following relative-priority listing was developed by the Sensitive Areas Work Group for Subarea Contingency Plans as a tool to establish levels of concern. These criteria are not listed in a priority order and are presented only as additional guidance. This must be used in conjunction with spill-specific information (e.g., size, location of spill, product type, trajectory) to determine the actual protection priorities for that discharge.

**CRITERIA FOR RELATIVE-PRIORITY RATING.**

- human economic disruption -- economic/social value; human food source disruption
- mortality -- wildlife, fish, other organisms (number threatened in relation to abundance)
- animal displacement and sensitivity to displacement
- aesthetic degradation
- habitat availability and rarity
- sublethal effects, including sensitivity to physical or toxic effects of oil or hazardous substances and long-term affects to habitat, species, or both
- threatened and endangered species, and/or other legal designation
- persistent concentration of oil or hazardous substances
- reproduction rate or recolonizing potential
- relative importance to ecosystem
- potential for physical contact with spill--pathway of oil or hazardous substances

The degree of penetration and retention of oil upon shorelines upon biological resources varies a great deal. In general, the potential biological sensitivity of different shoreline types can be classified as:

Most sensitive: marshes and lagoons, sheltered environments/pocket beaches, mud and sand flats

Least sensitive: exposed rock or cliff shorelines, exposed beaches

The table below identifies the sensitivity indexes used by RPI, with 1 representing the lowest sensitivity and 10 the highest.

**TABLE 3.10-3  
ENVIRONMENTAL SENSITIVITY INDEXES**

<b>Sensitivity</b>	<b>Description</b>
1	Exposed rocky headlands
2	Wave-cut platforms
3	Fine-medium sand beaches
4	Coarse sand beaches
5	Exposed tidal flats (low biomass)
6	Mixed sand and gravel beaches
7	Gravel beaches
7	Exposed tidal flats (moderate biomass)
8	Sheltered rocky shores
8	Eroding peat scraps
9	Sheltered tidal flats (high biomass)
10	Marshes

**Source:** Sensitivity of Coastal Environments and Wildlife to Spilled Oil, Bristol Bay, Alaska, An Atlas of Coastal Resources, Research Planning Institute, Inc., prepared for National Oceanic and Atmospheric Administration, 1982.

In planning response actions, such as setting collection booms to concentrate oil for mechanical recovery, try to avoid collection sites which are obvious sensitive areas, i.e. stream mouths, marsh areas, fresh water intakes, set net sites, etc. The non persistent, non crude products carried as cargo are likely to disperse and evaporate leaving little long term effects on the shoreline after a spill incident. However, they are very toxic to marine organisms until that evaporation has occurred. Booming strategies should focus on keeping oil away from sensitive shoreline areas. However, there may be specific seasonal concerns to take into account in terms of maximum protection of fish and wildlife resources when designing recovery and diversion booming strategies especially during commercial or subsistence fishing activities.

These types of sites are best protected from the effects of discharged oil by exclusionary or diversionary booming. See Section 1.6.6 for additional information on these strategies.

### 3.10.4 OIL CARGO TOXICITY AND POSSIBLE EFFECTS ON THE ENVIRONMENT

VML carries only non-persistent oil cargo. See list of products and relative toxicity in Table 3.10-4

**TABLE 3.10-4  
OIL CARGO/PRODUCT TOXICITY**

OIL PRODUCT	TOXICITY	DEGRADABILITY	DISPERSABILITY
Unleaded Gasoline	High	High	High
Supreme Unleaded Gasoline	High	High	High
Aviation Gas	High	High	High
Jet Fuel A	High	High	High
Jet Fuel A-50	High	High	High
Heating Fuel #1	High	High	High
Heating Fuel #2	High	High	High
Diesel #1	High	High	High
Diesel #2	High	High	High

Source: AAC 75.640-660

#### POTENTIAL EFFECTS OF OIL ON MARINE PLANTS AND ANIMALS

##### Kelp Beds

If oil contamination occurs during plant reproduction, this and other annuals rarely recover. Kelp loss would then affect those that depend upon this resource; e.g., many species of algae, invertebrates, fish, and marine mammals.

##### Eelgrass Beds

Small quantities of oil can weaken the beds, affecting potential habitat for many birds, fish, and invertebrates.

##### Salt Marsh Vegetation

Evidence indicates little long term damage from light oil contamination. However, heavy pollution can damage growth potential and cause plant death. Loss of this habitat would adversely affect many species.

##### Fish

Direct or indirect toxicity may affect adult or juvenile fish, while eggs or larvae may be damaged by coating or direct toxicity. Crustaceans, shellfish, and benthic fish species may be affected by direct coating or by eating contaminated food.

##### Birds

Spilled oil can harm birds in a variety of ways. Direct contact is toxic and can oil their feathers. This may result in a loss of their thermoregulating abilities, their ability to maintain the proper salt balance as well as their ability to fly or float. Ingestion may affect reproduction. Embryo and chick survival may be reduced as a result of oil-coated eggs.

##### Marine Mammals

Seals, sea lions, and otters may be poisoned by feeding on oil-contaminated marine organisms or from ingesting oil while cleaning their fur. They may survive with small amounts of oil on their fur, however, oil will reduce the insulation capabilities of the fur and hypothermia may result. Oil can irritate the mucous membranes of cetaceans.

### Terrestrial Mammals

Bear and other carnivores (as well as birds of prey) may be harmed by eating oil contaminated food.

## **SECTION 3.10.5 WILDLIFE PROTECTION**

VML will follow the “Wildlife Protection Guidelines for Alaska” current edition 4, dated June 2002 (Annex G of the Unified Plan). These guidelines include procedures and requirements for hazing, capture, and rehabilitation.

### Primary Response Strategies

Primary response strategies for wildlife protection emphasize controlling the release and spread of spilled oil at the source to prevent or reduce contamination of potentially affected species and/or their habitat. Primary strategies are the containment and/or control of the spill which may include containment and/or diversion or exclusion booming, mechanical cleanup, and dispersant use, removal of oiled debris, particularly contaminated food sources (such as dead wildlife carcasses and oiled kelp) both in water and on land.

If necessary, additional containment and control equipment and trained personnel are available through Alaska Chadux Corporation (ACC). ACC has 40’ container vans with containment, recovery and wildlife equipment and vessels which are pre-staged in Anchorage ready for immediate mobilization to a remote site. See the ACC Response Manual Section 3.10.

### Secondary Response Strategies

Secondary response strategies emphasize keeping the potentially affected wildlife away from oiled areas through the use of deterrent techniques. These techniques may include visual methods (e.g., placing scarecrows or helium-filled balloons on oiled beaches), auditory methods (e.g., firing propane cannons), and other methods (e.g., preemptive relocating wildlife with boats or aircraft). Refer to Section 1.6.11 for state and federal permitting requirements.

Passive hazing equipment is stored on each tow and is immediately available for deployment once permits, if required, are obtained (see Section 3.6.1). Additional hazing equipment will be mobilized to the spill site via other VML equipment and/or through ACC resources. VML personnel may only be engaged in passive hazing. Active hazing requires specialized training and certification. ACC and subcontractor personnel will conduct active hazing, if required.

For capture and stabilizing, holding, treating and rehabilitation, VML will follow the guidance of ACC and the potential facilities listed in Table 3.10.7. Procedures will be as outlined in the ACC Response Manual and those procedures adopted by the different facilities listed in Table 3.10.7.

### Wildlife Response Resources and Capability’s

VML has retained the services of IBRRC for wildlife response and rehabilitation through a binding agreement with the Alaska Chadux Corporation. Facilities, equipment and qualified personnel necessary to capture, stabilize and rehabilitate oiled wildlife is maintained by the IBRRC. In the event of a discharge, oiled wildlife will be captured, stabilized and rehabilitated utilizing IBRRC.

### Tertiary Response Strategies

Tertiary response strategies address the potential capture and treatment of oiled wildlife. Typically, only a small percentage of wildlife that are oiled will actually be captured. Of this percentage, only a portion of these will survive the treatment process. The following factors should be considered to determine when to begin and end a wildlife capture and treatment program.

- Time of year
- wildlife present: birds, marine mammals, terrestrial mammals

- response team safety considerations
- legal status of particular species (e.g., endangered, protected)
- population status of particular species (e.g., international, national, and regional significance)
- estimated percentage of the population affected
- resource status of a particular species (e.g., subsistence, recreation)
- logistical constraints in treating oiled animals
- anticipated success in effectively treating oiled animals
- public concern

Tertiary response strategies should be conducted in a manner that minimizes adverse effects to wildlife. Techniques need to be identified that prevent: 1) unnecessary or illegal disturbance to sensitive species and habitats such as nesting raptures, seabird rookeries, and marine mammals haulouts and pupping areas; 2) illegal collection of wildlife parts by spill response personnel; and 3) wildlife contact with cleaning agents and/or bioremediation substances used for shoreline treatment.

### Protection Guidelines for Marine and Coastal Birds

Marine birds include all birds found near ocean, in bays and inlets, or near the shore below high-tide line. Coastal birds include birds found on or near the shore; they often use areas below high-tide line. There are five groups of marine and coastal birds:

- seabirds puffins, albatross, and gulls are found from the oceans to the coast and are onshore only during nesting season
- waterfowl - geese, swans, and ducks use shorelines and bays
- diving birds - loons and grebes use nearshore waters
- raptors - bald eagles and peregrines prey on marine and coastal birds
- salt water ducks - surf scoters

Strategies for protecting marine and coastal birds from oil are discussed above.

Suggested deterrent methods for marine and coastal birds are as follows:

Visual:	scarecrow, helium filled balloons
Auditory:	Propane cannons, recorded sounds, cracker shells
Visual and Auditory:	preemptive relocating or hazing with aircraft or boats
Other Methods:	capture and relocation, electromagnetic current, chemical currents

None of the above methods should be attempted with the exception of passive hazing without agency approval through the IC or Wildlife Coordinator. See Section 1.6.11

### Treatment of Oiled Seabirds

Treatment of any birds without direct agency approval and involvement should be done only on an emergency basis until ACC wildlife response teams arrive and proper permits are obtained through the ADF&G and USF&WS. See Section 1.6.11

### Oiled Wildlife Rehabilitation

In the event birds are easily captured, rehabilitation may be appropriate in some circumstances. Reference should be made to the American Petroleum Institute publications *Saving Oiled Seabirds #4447 and Rehabilitation Oiled Seabirds, a field manual #4407, the Alaska Chadux Response Manual*.

## Protection Guidelines for Marine Mammals

Marine mammals include those found on the ocean, in bays and inlets, or on the shore below high-tide line. There are three groups of marine mammals:

- cetaceans - whales, porpoise, dolphins
- pinnipeds - seals, walrus, sea lions
- sea otters

Strategies for protecting marine mammals from oil include containing the oil before it reaches their habitat. Priority should be placed on protecting haulout and rookery beaches. Disturbance of haulout and rookery beaches can result in mass stampedes of the animals into the water, followed by abandonment of the beaches. This disturbance can result in more severe effects than those caused by the spill, including direct physical injury to newborn, small, or weak animals, separation of mothers and pups, and movement to less-favorable areas. The distance at which disturbance occurs is variable and depends on the level of response activities, local conditions of visibility, and the species in question.

A major problem with deterrent techniques for marine mammals, particularly sea otters, is that they habituate very easily to noise or other distractions. Auditory and or visual deterrent techniques have shown some limited success with marine mammals. Capturing and relocating marine mammals have proven to be the most effective methods. It has been observed that marine mammals avoid spill sites. The danger of extreme shock and stress to an animal from being captured and relocated may far outweigh its potential for being oiled.

### PRIMARY RESPONSE –OILED SEA OTTER CARCASS COLLECTION

Oiled sea otter carcasses will be collected by wildlife rescue teams or by other clean up teams as directed by the US Fish & Wildlife Service (USFWS) and the Alaska Dept. of Fish & Game (ADF&G). Permits, Section 1.6.11.

Crews will be provided with heavy plastic bags for oiled carcasses or other containers if specified by trustee agencies. Carcasses and containers will be labeled with tie on tags and waterproof marking pens and will include information such as: Species, location found, date and time, collectors name, boat name, etc. Data sheets with more detailed information about the carcasses may be required by trustee agencies. These sheets will be provided to teams as directed by trustee agencies. Carcasses will be transported to a collection point such as a freezer van for cataloging and disposal by USFWS.

### SECONDARY RESPONSE- PRE-EMPTIVE SEA OTTER CAPTURE:

A pre-emptive capture response may be initiated by the USFWS. The Marine Mammal Team Leader and USFWS will oversee this operation. Capture and transport operations will be conducted by trained personnel under supervision of USFWS. Pre-emptive capture pens, nets, and all related equipment is located in Anchorage.

### TERTIARY RESPONSE- CAPTURE AND REHABILITATE SEA OTTERS:

Boats specific for sea otter capture will be identified from the local area fleets and contracted for use during a spill event.

Any sea otters captured for the purpose of rehabilitation will be triaged and then air lifted to a contracted facility. They will enter the rehabilitation center, undergo several weeks of rehabilitation and then be returned to their capture site or released elsewhere. The USFWS will determine where and when to release sea otters. See Table 3.10.7 of Annex G of the Unified Plan

## State and Federal Roles in Wildlife Protection

It is important for spill response teams to coordinate wildlife protection and treatment activities with state and federal agency representatives. A number of state and federal agencies are “trustees” for particular resources and habitats and these trustees should be consulted to ensure the appropriate choice of wildlife protection strategies.

The primary wildlife trustee agency in Alaska is the Alaska Department of Fish and Game (ADF&G), Habitat Division. The federal trustee agencies include: Fish and Wildlife Service, US Department of Interior and the US Department of Commerce, National Oceanic and Atmospheric Administration. See Section 1.6.11

**TABLE 3.10-5  
POTENTIAL FACILITIES FOR WILDLIFE CLEANUP AND REHABILITATION**

FACILITY NAME	CONTACT PERSON	TELEPHONE
IBRRC	BARBARA CALAHAN	(907) 562 1326, Anchorage, AK
FISH AND WILDLIFE SERVICE	RONALD HOOD	(907) 246-3339, King Salmon, AK
ALASKA RAPTOR CENTER	LYNN OWENS	(907) 747-8662 , Sitka, AK
ARCTIC ANIMAL HOSPITAL	JAMES SCOTT	(907) 563-3945, Anchorage, AK
WILDLIFE RAPID RESPONSE	JIM STIERS	Seattle, WA, (800) 204-5686
MARINE WILDLIFE RESCUE TEAM	BETSY KUNIBE CHAR ADAMSON	(907) 235 2700, Homer, AK
MARINE MAMMAL CENTER		(415) 289 Seal, Sausalito, CA.

## LIST OF WILDLIFE CARE REFERENCES

### Birds

- American Petroleum Institute and International Bird Rescue Research Center (API/IBRRC). 1985. Rehabilitating Oiled Seabirds: A Field Manual. Publication No. 4407.
- American Petroleum Institute. 1986. Saving Oiled Seabirds. Publication No. 4447.
- International Bird Rescue Research Center. 1990. Rehabilitating Oiled Sea Birds: A Field Manual With Updates.

### Sea Otters

- Western Oil and Gas Association. 1987. Sea Otter Oil Spill Contingency Plan. Hooks, McCloskey, and Associates, Inc.
- Davis, R.W. 1990. Advances in Rehabilitating Oiled Sea Otters: The Valdez Experience. International Wildlife Research.

### Marine Mammals

- RPI International, Inc. 1987. Natural Resource Response Guide: Marine Mammals. Ocean Assessments Division, National Ocean Service, National Oceanic and Atmospheric Administration.
- Gentry, R. and J.R. Holt. 1982. Equipment and Techniques For Handling Northern Fur Seals. NOAA Technical Report NMFS SSRF-758. U.S. Department of Commerce, National Oceanic and Atmospheric Administration.

**All Wildlife**

- Alaska Region Oil & Hazardous Substances Pollution Contingency Plan
- Wildlife Protection Guidelines for Alaska\_ARRT 6/4/02 Revision
- Alaska Chadux Corporation Response Manual

## 3.11 BIBLIOGRAPHY

Alaska Chadux Corporation, Oil Spill Response Manual, 2008.

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Alaska Department of Fish and Game, Alaska Habitat Management Guide Reference Maps, SW Region, Distribution of Mammals. 1985

Alaska Department of Fish and Game, Alaska Habitat Management Guide Reference Maps, SW Region, Distribution of Birds. 1985

Alaska Department of Fish and Game, Most Environmentally Sensitive Areas, Unpublished Map Series. Alaska. 2000.

Alaska Department of Environmental Conservation, et. al. Alaska Incident Management System (AIMS) for Oil and Hazardous Substance Response. November 2002.

Alaska Department of Environmental Conservation, Selected Oil and Hazardous Substance Pollution Control Statutes and Regulations (revised 2006), Internet

Alaska Department of Environmental Conservation, Oil Discharge Prevention & Contingency Plan Review Guidelines, July 1994

APD&T, Alaska Petroleum Distributors and Transporters OPA 90 Agreement for Final Compliance Proposal for Non Persistent Oil Barges in Alaskan Waters, December 2009

Little, Arthur D. & Assoc, Study of Non Crude Tank Vessel and Barges July , 1991

National Oceanic and Atmospheric Administration. Aerial Observations of Oil at Sea. April 1996.

U.S. Coast Pilot: No. 9, 27th edition, 2009

33 CFR Parts 125 to 199, Internet

Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases (Unified Plan), Volume 1. January, 2010. ADEC, USCG, and USEPA.

Ten Sub Area plans

Prince William Sound, July 1997

Kodiak, July 1998

North Slope, December 1999

Bristol Bay, June 2001

Northwest Arctic, June 2001  
Southeast, July 1997  
Cook Inlet, May 2004  
Aleutians, September 1999  
Interior, June 2000  
Western Alaska, June 2001

VITUS MARINE, LLC.

CHARTERED TANKER ADDITIONAL INFORMATION, PART IV

Document Control Sheet

Originators: Mark Smith

<i>Approved by Dept.</i>	<i>Name</i>	<i>Signature</i>	<i>Date</i>
Vessel Ops.	Mark Smith		

Change Record

<i>Revision#</i>	<i>Date</i>	<i>Approved by</i>	<i>Description of Change</i>

Distribution List

Vessel C-Plan  
Anchorage Office  
ADEC, ADF&G, ADNR, CRSAs

Special Instructions

#### 4.1 BAT FOR COMMUNICATIONS 18 AAC 75.425(e)(1)(D)

EVALUATION CRITERIA	EXISTING <i>VHF, Fax, Cell, Sat Tele</i>	# 1 <i>GMDSS</i>	# 2 <i>Automated Status Download</i>
AVAILABILITY: Is the technology the best in use in other similar situations.	Current VHF, Fax, Cell and Satellite telephone on tugs (Sec 1.4.1). Additional ACC communications resources are available throughout the state. Existing is best available technology for VML's operations.	GMDSS systems available and include VHF, UHF, SB Radio, Cellular telephone, Telex, Satellite telephone and fax. Best in other similar situations.	Automated Status Download is available but not to be applied. Best in other similar situations.
TRANSFERABILITY: Can the technology be applied to the applicant's operation.	In operation	Yes, transferable. May be in operation on chartered tankers.	Possibly transferable.
EFFECTIVENESS: Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Ship to shore, satellite phone is primary and available statewide, VHF including marine operator is second—both are effective.	System ensures open and redundant lines of communications. No ground station receivers available for VHF in Far Western Alaska result in low to no effectiveness.	Increased benefits are doubtful. Not effective, no improvement in local (Western AK) communications.
COST: Cost of achieving BAT and consideration of cost in relation to remaining years of service of current technology in use by applicant.	No change or reduced costs as air time becomes less expensive	There is a substantial cost for additional equipment, training, testing and maintenance.	There is a substantial cost for additional equipment.
AGE & CONDITION: of existing technology. Consider: Relative to similar equipment in current or past use under similar circumstances.	VHF and Satellite equipment are new.	New and improving technology.	New and improving technology.
COMPATIBILITY: Is the technology compatible with existing operations.	All compatible	At basic VHF level, yes. Overall, no, improved and dedicated lines are not available in Western AK	Yes
FEASIBILITY: Feasibility of this technology from an engineering and operational view.	All feasible	Feasible	Not feasible due unproven value
ENVIRONMENTAL IMPACTS: Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	None	None	None.

Summary: Current technology is adequate and effective statewide. Strengths of GMDSS not applicable in Western AK due to lack of required shoreside infrastructure. VML will use current technology.

## 4.2 BAT FOR STOPPING DISCHARGE AT SOURCE AND PREVENTING SPREAD 18 AAC 75.425(e)(1)(F)(i)

EVALUATION CRITERIA	EXISTING <i>Coaming, Plugged Scuppers, Drip Pans, and Other Existing tank vessel Features</i>	EXISTING <i>Damage Control, temp patches, berm with sorbents, internal transfers, on-board containment boom.</i>	EXISTING Double hulled vessel	# 1 Smart Hoses
AVAILABILITY: Is the technology the best in use in other similar situations.	Coaming, plugged scuppers, drip pans Sec. 1.6.0, 2.1.7, 1.5.0, 2.3-4; Shut off pumps, close valves, wrap/plug with sorbents, pump from overfilled tank. Sec. 1.6.1, 1.6.8. PIC is physically present during transfers to initiate an emergency shut down. Sec. 2.1.5. Existing is best technology for VML operations.	Damage Control, ie. temp. patches, berm with sorbents, pump from damaged tank—tank to tank—lighter, isolate piping. Maintain coaming integrity, plug scuppers if discharge is on deck. Sec. 1.6.1, 2.1.7, 1.5.0Sec. 1.6.1, 1.6.8, 1.6.9, scenarios. Existing is best technology for VML operations.	Chartered tank vessels will be double hulled.	Smart Hoses are available but are not best technology (not used in similar situations delivering fuel to similar customers and will not be applied to VML operations).
TRANSFERABILITY: Can the technology be applied to the applicant's operation.	In Operation	No change In Operation	Yes	No. Hose cannot be pigged to clear hose of fuel.
EFFECTIVENESS: Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Very effective at limiting discharges to water.	Very effective at limiting discharges to water.	Very effective at limiting discharges to water.	No, this technology is best suited for tank truck operations and in plant operations.
COST: Cost of achieving BAT and consideration of cost in relation to remaining years of service of current technology in use by applicant.	N/A	N/A	N/A	100' section costs about \$2300. Each tug/tow combination uses approximately 800' of hose.
AGE & CONDITION: of existing technology. Consider: Relative to similar equipment in current or past use under similar circumstances.	Chartered tankers meet USCG and State of Alaska requirements.	Chartered tankers meet USCG and State of Alaska requirements.	Chartered tankers meet USCG and State of Alaska requirements	Technology is ten + years old
COMPATIBILITY: Is the technology compatible with existing operations.	No change	No change	No change	No. Hose cannot be pigged to clear hose of fuel and is too heavy to drag.
FEASIBILITY: Feasibility of this technology from an engineering and operational view.	No change	No change	No change	Not feasible, too heavy, too costly, can't pig, difficult to drain back to vessel, customers complain for not getting metered fuel inside hose.
ENVIRONMENTAL IMPACTS: Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	None	None	None	None

## 4.2 BAT FOR STOPPING DISCHARGE AT SOURCE AND PREVENTING SPREAD 18 AAC 75.425(e)(1)(F)(i)

EVALUATION CRITERIA	# 3 Add TD-200 6-in Lightering Pump			
AVAILABILITY: Is the technology the best in use in other similar situations.	Separate dedicated lightering pumps may be in use in other similar situations, but where lightering barges are readily available.			
TRANSFERABILITY: Can the technology be applied to the applicant's operation.	Yes – could be transferred to VML Chartered Tanker operations.			
EFFECTIVENESS: Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	No. At 37,000 BPD, there would not be enough temp. storage capacity immediately available.			
COST: Cost of achieving BAT and consideration of cost in relation to remaining years of service of current technology in use by applicant.	+\$80,000 with engine			
AGE & CONDITION: of existing technology. Consider: Relative to similar equipment in current or past use under similar circumstances.	6" pumps have been available for a long time.			
COMPATIBILITY: Is the technology compatible with existing operations.	No. It would only benefit lightering when a tank barge is available for temporary storage.			
FEASIBILITY: Feasibility of this technology from an engineering and operational view.	No. VML's current capability for damaged tank transfer exceeds requirements of Agreement for Final Compliance.			
ENVIRONMENTAL IMPACTS: Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	None			

Summary: Current technology is adequate to state standards. VML will use current technology.

### 4.3 BAT FOR REAL TIME SURVEILLANCE AND TRACKING OF DISCHARGE 18 AAC 75.425 (e)(1)(F)(iv)

EVALUATION CRITERIA	EXISTING <i>Visual – Vessel or Aerial</i>	# 1 <i>Satellite or Oil Tracking Buoys</i>	# 2 <i>Infrared Cameras</i>
AVAILABILITY: Is the technology the best in use in other similar situations.	Visual from tug, skiff, hillside, bulk tanks or aircraft are most commonly used and are the most reliable method. Sec. 1.6.4. Visual real time surveillance and tracking is best available technology for spills to river systems.	Satellite or Hydrocarbon tracking buoy deployed in waters to track oil discharge. Visually follow tracking buoy. Technology exists and is considered best technology.	Yes, the technology is used elsewhere and considered best technology. During spill, FLIR is available in Alaska through several sources (eg. AK North Slope Producers, State of Alaska Fish and Wildlife Protection).
TRANSFERABILITY: Can the technology be applied to the applicant's operation.	No change	Yes, this technology can be applied to existing tracking methods.	Yes, handheld model could be used, but all sensors must be calibrated and require highly trained personnel to operate them and interpret them.
EFFECTIVENESS: Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Yes, provides for immediate feedback and can be repeated frequently for response. Most reliable method.	Tracking buoy effective as long as you can visually see buoy or signal can be followed on computer monitor. Would only be effective when detecting the presence of hydrocarbons. Very limited application and effectiveness in river systems compared to visual monitoring.	Yes, in clear weather. Forward Looking Infrared (FLIR) is unable to penetrate cloud cover, fog, haze, or rain. Effective in darkness with clear weather. FLIR does not give a good indication of thickness. No added benefit in daylight conditions.
COST: Cost of achieving BAT and consideration of cost in relation to remaining years of service of current technology in use by applicant.	Additional cost for aircraft charter	Tracking buoys cost about \$1500/each with computer software. "Dumb" buoys are negligible. Satellite technology for tracking is very expensive. \$20,000+	The handheld models run from \$20,000 to \$50,000 per vessel. Models dedicated to aircraft run about \$200,000. Current technology is less expensive.
AGE & CONDITION: of existing technology. Consider: Relative to similar equipment in current or past use under similar circumstances.	NA	Hydrocarbon tracking buoys have been used since the 1980s. Tracking buoys if used would be new. Satellite is fairly new technology. Requires satellite program infrastructure	Established and updated technology. Has been used successfully in some oil spill circumstances.
COMPATIBILITY: Is the technology compatible with existing operations.	No change	This technology is somewhat compatible with the existing operations as a boat is still required to set the buoys in place.	Not fully compatible - FLIR systems are bulky and are only used with dedicated aircraft where they are installed. Handheld cameras could be used through an open window of an aircraft.
FEASIBILITY: Feasibility of this technology from an engineering and operational view.	No change	This technology is not feasible due to costs and the fact that visually identifying the spill by boat rather than machine is more accurate. Satellite technology is not feasible due to high costs and uncertainty of tracking data.	Not feasible because a combination of different devices is often required to overcome the limitation of the individual sensors. The high cost of outfitting a vessel is not feasible.
ENVIRONMENTAL IMPACTS: Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	Only exhaust from skiffs or airplanes	No environmental impacts from use of tracking buoy. No environmental impacts from use of GIS satellite imagery.	None

Summary: Current technology is adequate to state standards. VML will use current technology.

**4.4 BAT FOR WILDLIFE 18 AAC 75.425 (e)(1)(F)(xi)**

<b>EVALUATION CRITERIA</b>	<b>EXISTING <i>Alaska Chadux and IBRRC</i></b>	<b># 1 <i>Additional Wildlife Cleanup and Rehab Organizations</i></b>	<b># 2</b>
<b>AVAILABILITY:</b> Is the technology the best in use in other similar situations.	WRRT and Mobile wildlife care units available through Alaska Chadux through membership. Sec. 1.6.5, 1.6.11, 3.10. Existing wildlife capabilities are best available technologies for Alaska.	Additional wildlife cleanup and rehabilitation organizations (Lower 48) are available. No other organizations in Alaska. IBRRC Considered best technology in Alaska.	
<b>TRANSFERABILITY:</b> Can the technology be applied to the applicant's operation.	No change	Yes, would require additional standby contract and development of infrastructure.	
<b>EFFECTIVENESS:</b> Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Provides for front-line care to the field for immediate rescue and rehabilitation.	It is reasonable to expect that they will provide added capture, stabilization and rehabilitation support in an emergency event. However, additional wildlife contractor in Alaska may decrease IBRRC's effectiveness.	
<b>COST:</b> Cost of achieving BAT and consideration of cost in relation to remaining years of service of current technology in use by applicant.	No change	Standby contract cost and cost of initial infrastructure need for second contractor estimated at \$200,000. Not cost effective. Incident call out cost is dependent on incident.	
<b>AGE &amp; CONDITION:</b> of existing technology. Consider: Relative to similar equipment in current or past use under similar circumstances.	WRRT mobile unit built in 1996. Team receives current training	Additional organizations current, but inferior to IBRRC.	
<b>COMPATIBILITY:</b> Is the technology compatible with existing operations.	In use by Alaska Chadux	Technology is compatible with existing VML system of wildlife response. Equipment & personnel can be coordinated within VML plan.	
<b>FEASIBILITY:</b> Feasibility of this technology from an engineering and operational view.	In use	This technology is feasible with VML response plan.	
<b>ENVIRONMENTAL IMPACTS:</b> Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	None	Addition contractor in Alaska may result in detriment to existing contractor, IBRRC.	

Summary: Current technology is considered best available and adequate to state standards. VML will use current technology.

#### 4.5 BAT FOR DISCHARGE DETECTION AND CARGO TANK SOUNDING 18 AAC 75.037(d)

EVALUATION CRITERIA	EXISTING <i>Visual Monitoring</i>	EXISTING <i>Remote Electronic Tank Level Sensors</i>	# 1 <i>Seawater Intrusion Sensors</i>
<b>AVAILABILITY:</b> Is the technology the best in use in other similar situations.	Visual monitoring from tanker or skiff, tank gauges, tank dipping provide indication of possible discharge. Considered best technology for non-crude vessel operations. See Section 2.5	Remote electronic tank level system provides tank level measurements in ¼" increments with digital readout visible from cargo manifolds.	Seawater intrusion/oil sensors are available. Will not be used – no known applications in other operations at this time.
<b>TRANSFERABILITY:</b> Can the technology be applied to the applicant's operation.	Currently used	Currently used. May be in use on some chartered tankers.	Technology not yet proven. Not transferable.
<b>EFFECTIVENESS:</b> Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Current methods in place effective	Current methods in place effective	No expectation of increased prevention of spills.
<b>COST:</b> Cost of achieving BAT and consideration of cost in relation to remaining years of service of current technology in use by applicant.	No change	No change	Unknown. Would be more expensive than existing methods
<b>AGE &amp; CONDITION:</b> of existing technology. Consider: Relative to similar equipment in current or past use under similar circumstances.	Devices vary in age. All including visual in adequate condition	Devices vary in age.	N/A
<b>COMPATIBILITY:</b> Is the technology compatible with existing operations.	Yes	Yes	Could be
<b>FEASIBILITY:</b> Feasibility of this technology from an engineering and operational view.	Is feasible	Is feasible	Unproven, average engineering design & Operational requirements unknown
<b>ENVIRONMENTAL IMPACTS:</b> Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	No	No	No

#### 4.5 BAT FOR DISCHARGE DETECTION AND CARGO TANK SOUNDING 18 AAC 75.037(d)

EVALUATION CRITERIA	# 2 <i>Tank Level or Pressure Monitoring</i>		
AVAILABILITY: Is the technology the best in use in other similar situations.	Tank level or pressure monitoring (TLPM) Will not be used – no known applications in other operations at this time. Not best technology.		
TRANSFERABILITY: Can the technology be applied to the applicant's operation.	Not transferable. Coast Guard acknowledges that devices capable of meeting these standards do not exist and have not been developed since enactment of OPA 90		
EFFECTIVENESS: Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	None. Not reliable when vessel is moving. Coast Guard estimates that they will only prevent 874 barrels of oil pollution over a 12-year period.		
COST: Cost of achieving BAT and consideration of cost in relation to remaining years of service of current technology in use by applicant.	At a cost of approximately \$190,000 per barrel of pollution avoided.		
AGE & CONDITION: of existing technology. Consider: Relative to similar equipment in current or past use under similar circumstances.	NA		
COMPATIBILITY: Is the technology compatible with existing operations.	Could be if technology is proven effective.		
FEASIBILITY: Feasibility of this technology from an engineering and operational view.	Unproven, average engineering design & Operational requirements unknown		
ENVIRONMENTAL IMPACTS: Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	No		

Summary: Current technology is adequate to industry standards. Even after implementation of electronics, VML would continue to use visual monitoring as the check. VML will use existing technology.

**4.6 Non-Crude Oil Tank Vessel. BAT for Towing Line, 18 AAC 75.027(f)**

<i>Evaluation Criteria</i>	<b>Existing</b> <i>Minimum After Towing Line - Pickup buoy and 150ft of 0.5" pickup line, 220 ft of 1.5" dia tow line. Made up and readied on after deck while chartered vessel are in State waters.</i>	<b>Existing</b> <i>Minimum Bow Towing Line – Pick up bouy and 150' of 0.5" dia. Tow line attached to wire rope towing pennant. The towing package will be fed through one of the bow chocks with the towing line and bouy trailing alongside the vessel.</i>	
<b>Availability</b> <i>Is the technology the best use in other situations? Is the technology available for use by the applicant?</i>	<i>Yes – Provides quick tow line for deployment to escort tugs. Yes – All VML chartered tank vessels must have tow line available while in State waters. Detailed description to be submitted with the chartered tanker package.</i>	<i>Yes – Provides quick tow line for deployment to escort tugs. Yes – All VML chartered tank vessels must have tow line available while in State waters. Detailed description to be submitted with the chartered tanker package.</i>	
<b>Transferability</b> <i>Can the technology be applied to the applicant's operation?</i>	<i>Yes – the system is compatible with all tank vessels.</i>	<i>Yes – the system is compatible with all tank vessels.</i>	
<b>Effectiveness</b> <i>Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits</i>	<i>Yes – the new tow line package is easy and quick to deploy in the event of the need for emergency towing. Meets IMO standards.</i>	<i>Yes – the new tow line package pre-deployed in the event of the need for emergency towing. Meets IMO standards.</i>	
<b>Cost</b> <i>Cost of achieving BAT? Consideration of cost in relation to remaining years of service of current technology in use by applicant?</i>	<i>The cost of the technology is minimal.</i>	<i>The cost of the technology is minimal.</i>	
<b>Age and Condition</b> <i>Age and condition of existing technology. Consider: Relative to similar equipment in current or past use under similar circumstances.</i>	<i>Technology is relatively new and meets IMO standards.</i>	<i>This is a standard towing configuration that has been in use for a long period of time.</i>	
<b>Compatibility</b> <i>Is the technology compatible with existing operations?</i>	<i>Yes – after towing line package is designed to be compatible with tug escort(s) provided by VML for chartered tank vessels.</i>	<i>Yes – bow towing line package is designed to be compatible with tug provided by VML.</i>	
<b>Feasibility</b>	<i>Currently in place and operational.</i>	<i>Currently in place and operational.</i>	
<b>Environmental Impacts</b>	<i>Positive environmental impact achieved due to increased spill prevention capabilities.</i>	<i>Positive environmental impact achieved due to increased spill prevention capabilities.</i>	

Summary: Current technology is considered best available and adequate to state standards. VML will use current technology.

VITUS MARINE, LLC.

ALASKA CHARTERED TANKER C-PLAN

Document Control Sheet

Originators: Mark Smith

<i>Approved by Dept.</i>	<i>Name</i>	<i>Signature</i>	<i>Date</i>
Vessel Ops.	Mark Smith		

Change Record

<i>Revision#</i>	<i>Date</i>	<i>Approved by:</i>	<i>Description of Change</i>

Distribution List

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Special Instructions

## 5.0 RESPONSE PLANNING STANDARD

### 18AAC75.440 RESPONSE PLANNING STANDARD (RPS) FOR NONCRUDE OIL TANK VESSELS.

VML tank vessel operations will transport only non-persistent refined cargo products (gasoline, aviation gas, jet fuels, and diesel fuels).

The response planning standard volume for a non-crude oil tank vessel is equal to 15 percent of the total cargo capacity of the vessel.

The largest capacity tank vessel intended for use under this plan is 200,000 barrels. At 15 percent of 200,000 barrels, **the RPS for this plan is 30,000 barrels.** The 200,000 bbl tank vessel will be restricted to operations in Port Clarence, AK.

For all other tank vessel operations the tank vessel will be 45,000 bbls. The 45,000 bbl tank vessels will operate in all areas of operations described in this plan. At 15 percent of 45,000 bbls, **the RPS for this vessel is 6,750 barrels.**

VML will maintain or have available under contract within VML's region of operation or another approved location, sufficient oil discharge containment, storage, transfer, and cleanup equipment, personnel, and other resources to contain or control within 48 hours, and clean up within the shortest possible time, that portion of the response planning standard volume that enters open water; and contain or control, and clean up within the shortest possible time consistent with minimizing damage to the environment, that portion of the response planning standard volume that enters a receiving environment other than open water.

**See Section 1.6.12.1 and 1.6.12.2 for response scenarios demonstrating capability to exceed State of Alaska Department of Environmental Conservation RPS planning requirements.**