# Port of Anchorage Transitional \& Maintenance Dredging 



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 DredgingSafety - Anchorage, AK

- Anchorage, AK
-Maintenance Dredging

Transitional Dredging

## Safety

Fall Temperatures

- October 2006 \& 2010 the temperature dropped to single digits.
- Ice on the decks
-Access
- Boarding vessels from either a dock or an assist vessel
Water Temperature
- Hypothermia can set in quickly
Silt in the Water
- Can get into your clothes and weigh you down
-Fast Currents
- Landing barges
- Landing assist vessels
- If you fall overboard you could travel a long distance before rescue



## Extreme Tides



Tides can change from a -4.5 to a +34

## Stages of the Ticle



## Winter 06 Tidal Change

 photo taken every 10 minutes throughout the tide cycle.
## Extreme \& Unusual Currents

-After the Port Expansion began there was a noticeable change in the directions of the currents.

The currents dictated the routes of the hopper dredge

- Often times requiring mid load direction modifications.
There is a lot of current in the Transitional Dredge Area.



## Logistics

Sunday \& Tuesday

- Horizon Lines
- Tote

2 Weeks on / 2 Weeks off

- Cement Ships
-As needed
- Military Vessels
- Coastguard Training

Random

- Fuel Barges
-The Military Vessels require a large no entry zone
- Hopper dredging ceases while military vessels are in port.



## PORT OF ANCHORAGE BARGE BERTHS AND NORTH/SOUTH EXTENSIONS



## Disposal Site

## Infill - The Big Gamble

- Historically infill can be as high as 25,000 CY / day
- May be periodic
- The last 2 years have left the hopper on standby as much as it was dredging
- The decrease in infill seems to have coincided with the port expansion



## Westport Dredging



## Vulcan \& Jeffrey M.



# Transitional Dredging <br> COE Pre-Solicitation Preparation 

- Extensive Borings Taken
- Pre-Solicitation Meeting Held
- Partnering Meeting Held after Award


## Extensive Borings



## Test Holes

Completed towards the end of the 2009 dredge season


## Test Hole \#1



MANSON


## Test Hole \#2



## Test Hole \#3 (boring 4603)



MANSON


## Test Hole \#4



## 2009 Pre-Dredge Survey



## 2009 Post Dredge Survey



## 2010 PRE-DREDGE SURVEY



## 2010 OCTOBER 18 SURVEY



## 2010 Dredge Progression



## Obstructions



## Njord removing pill box from the North Expansion



## Sandy Gravel with Cobbles



## Dense Clay




## Material Observed by Load



## Dock Pass at T-3




## Viking in North Expansion



## Viking in North Expansion



## Anchorage Not a Bad Place to Work



## The real reason everyone volunteers to go to Alaska



