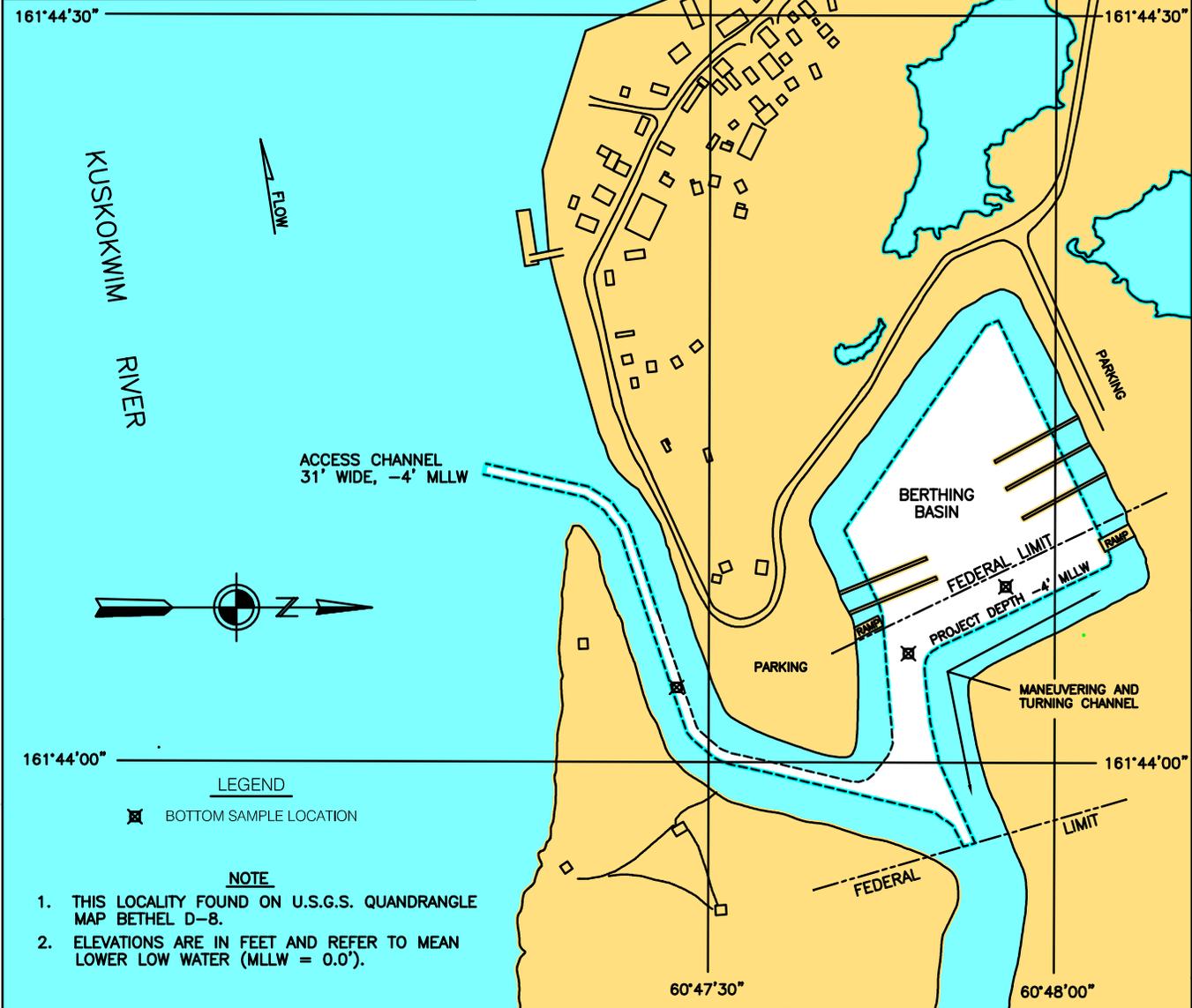
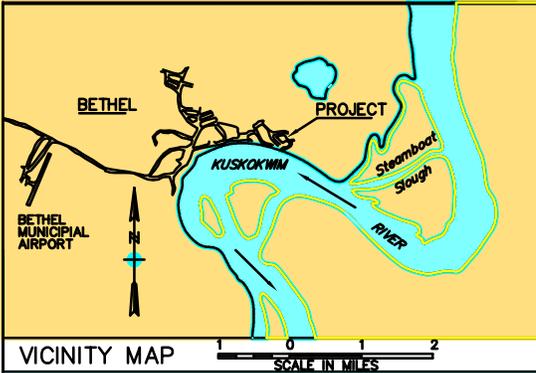
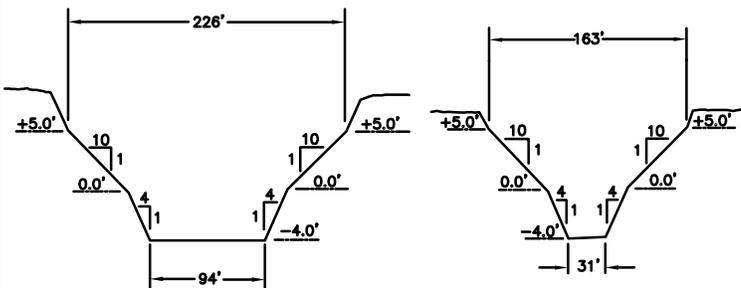


BETHEL HARBOR



TYPICAL SECTIONS

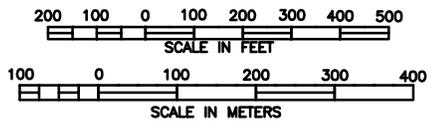


MANEUVERING OR TURNING CHANNEL SECTION
NOT TO SCALE

ACCESS CHANNEL SECTION
NOT TO SCALE

BETHEL HARBOR ALASKA

REVISED 1998



BETHEL HARBOR, ALASKA
(CWIS NO. 24100)

Condition of Improvement 30 September 2012

AUTHORIZATION: Rivers and Harbors Act, 14 July 1960, under Section 107 (P.L. 86-645) as authorized by the Chief of Engineers on 29 June 1978, provides for a 12 acre small boat harbor and 1,270 foot entrance channel by deepening, widening and straightening a portion of Lousetown Slough.

EXISTING PROJECT:	<u>LENGTH</u>	<u>DEPTH</u>	<u>WIDTH</u>
• Entrance Channel	1270 ft	-4 ft	31 ft
• Maneuvering & Turning Channel	418 ft	-4 ft	94 ft
• Basin (portion of)	519 ft	-4 ft	160 ft

PROJECT USAGE: This project is the only protected harbor in the Kuskokwim River Delta area and provides beach moorage for about 1,200 small boats with the possibility of a future medium-draft mooring basin.

PROGRESS OF WORK:

- 1982 - Project is approved as amended by the Office of the Chief of Engineers under Section 107 of the 1960 River and Harbor Act, dated 30 July 1982.
- 1983 - Construction begins on 21 January 1983 and is completed on 20 March 1983.
- 1988 - Local interests report that the removal of beach mooring fingers from the basin is complete, and a condition survey is conducted.
- 1991 - Sampling and testing of harbor sediments is conducted.
- 1992 - Maintenance dredging of the Federal project is carried out while the harbor is frozen in March 1992 with 15,100 cubic yards removed within the Federal limits. A follow up survey in September 1992 reveals that the project is subject to rapid shoaling from the fine sediment prevalent in the vicinity.
- 1997 - The Federal project is dredged to two feet over project depth; 28,300 cubic yards of material are removed in late winter with land-based equipment and trucked to an upland disposal site.
- 2001 - A condition survey is conducted in July.
- 2002 - Vertical aerial photography is taken in June.
- 2004 - The most recent condition survey is completed in August.
- 2010 - A condition survey was completed in mid October.
- 2011 – Harbor sediment samples were taken in October and the results were compared to the Toxicity Characteristic Leaching Procedure (TCLP) criteria. Additional samples were collected in September which showed no potential for fuel contamination.
- 2012 – Awarded maintenance dredging contract in September to Denali Drilling.

COST TO DATE:

CG Appropriation	\$1,514,398
CG Costs	\$1,514,398
CG Contributed Appropriation	\$2,000,000
CG Contributed Costs	\$2,000,000
O&M Appropriation	\$3,165,597
O&M Costs	\$1,052,288

Continues on page 1-3a

Method 8082	Polychlorinated Biphenyls	ND
Method 8081	Pesticides	ND or below cleanup levels ²
Series 6000-7000's	(8) RCRA Metals	(8) of (8) detected Arsenic 23 – 56 ppm, Chromium 31- 39 ppm, all others below cleanup levels ²
Method 8270C SIM	Polynuclear Aromatic Hydrocarbons	ND or below cleanup levels ²
Method E160.3M	Percent Moisture	51-56 %

* Believed to be associated with method blank contamination and were qualified with "B"

1 Project limits are defined by the Toxicity Characteristic Leaching Procedure (TCLP) criteria

2 Project limits are defined by ADEC 18 AC 75 MEhod 2 Table B1 and B2 Cleanup Level

30 September 2012

C. Disposal

- The current upland disposal area is a 20-acre site located on City of Bethel land northeast of the harbor basin. The disposal site corner coordinates are:
 - (2A) 60°47'37.93689"N 161°43'45.90448"W
 - (2B) 60°47'38.87486"N 161°43'45.90241"W
 - (2C) 60°47'39.49059"N 161°43'51.54268"W
 - (2D) 60°47'41.90326"N 161°43'51.53736"W
 - (2E) 60°47'46.82947"N 161°43'56.46355"W
 - (2F) 60°47'46.82021"N 161°43'38.83232"W
 - (2G) 60°47'36.73629"N 161°43'38.85532"W

This area was used to dispose of material from the 1992 and 1997 maintenance dredging events. The harbor sediment is hauled by truck to the disposal area; in 2013, the sediment was to be excavated by heavy equipment during winter low water. A background sample collected from this area in 1991 had a concentration of 26 mg/kg arsenic.

- The current upland disposal site is both preferred and adequate to meet dredging disposal needs.

D. Environmental Permits and Reports

The Corps prepared an EA in February 2012 for continued maintenance dredging, with a FONSI signed by the Denali Commission. DA Permit POA-2011-896 (expires May 2017) was issued to the City of Bethel. ADFG Fish Habitat Permit FH 10-II-0188 was amended (Amendment I) in March 2012.

<u>Agency Name</u>	<u>Date of Issue</u>	<u>Date of Expiration</u>
ADFG	23 Mar 2012	31 Dec 2013
ADEC (Water)	14 May 2012	14 May 2017
DA	May 2012	May 2017

Bethel Harbor, Bethel, Alaska



Bethel Harbor on September 21, 2010 top and bottom.

Bethel Harbor, Bethel, Alaska



Bethel Harbor oblique taken in September of 2010.