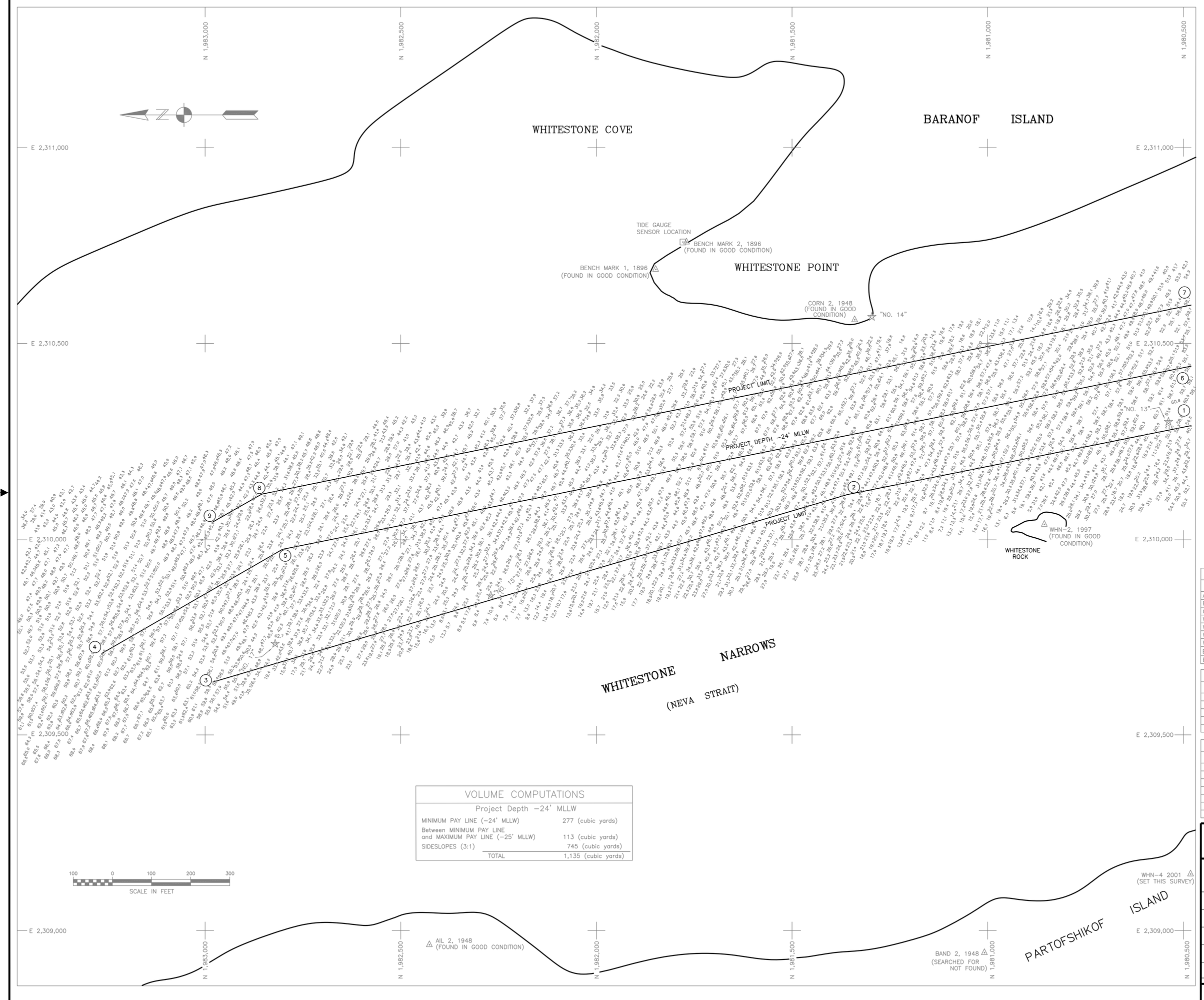
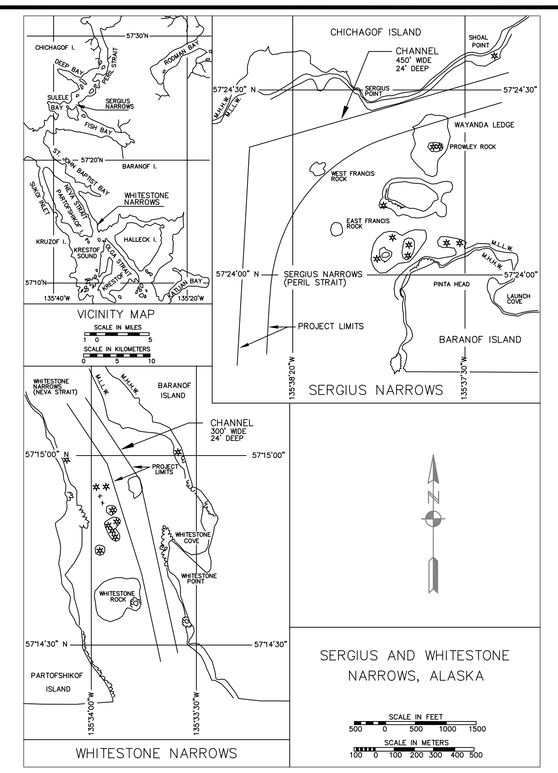
CORPS OF ENGINEERS

U. S. ARMY





NOTES

1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 1, NAD83, IN US SURVEY FEET HOLDING USC&GS TRI–STA SBC "AIL 2 1948" AS N 1,982,426.56, E 2,308,963.89 AND USC&GS TRI–STA SBC "CORN 2 1948" AS N 1,981,339.65, E 2,310,560.44.
2. VERTICAL CONTROL IS IN FEET, BASED ON MEAN LOWER LOW WATER (MLLW=0.0'), HOLDING USC&GS TIDAL BM "BENCH MARK 1 1896" AS 13.32', MLLW VALUES ARE BASED ON USC&GS TIDAL BENCH MARKS LIST "SOUTHEAST ALASKA, WHITESTONE POINT, NEVA STRAIT" PUBLICATION DATE: 5/27/59.
3. HORIZONTAL AND VERTICAL CONTROL WERE SURVEYED, MAY 9–10, 2001, USING OPTICAL INSTRUMENTS AND CONVENTIONAL TRAVERSE AND DIFFERENTIAL LEVELING TECHNIQUES.
4. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
5. BATHYMETRY WAS COLLECTED MAY 10, 2001. SOUNDINGS WERE COLLECTED USING A "RESON 8124 SEABAT" MULTIBEAM SOUNDER (120° SWATH, 80 BEAM FLAT ARRAY TRANSDUCER). SOUND VELOCITY WAS PROFILED AND COLLECTED USING AN "APPLIED MICROSYSTEMS – SVP PLUS" PROFILER. POSITIONING AND VESSEL ATTITUDE WERE MEASURED USING A "SEATEX – SEAPATH 200 RTK" SYSTEM COUPLED WITH A "SEATEX – MRU–5" MOTION REFERENCE UNIT. RTK CORRECTIONS WERE BROADCAST FROM A LOCAL BASE STATION SET AT "WHN–2 1997". DATA WAS COLLECTED AND FIELD PROCESSED USING "RESON 6042" INTEGRATED SOFTWARE. WATER LEVEL WAS MEASURED USING A "VYNER LP1 TELEMETRY TIDE GAUGE" COUPLED WITH AN "ENDECO TYPE 1029" WATER LEVEL RECORDER. FINAL DATA PROCESSING WAS PERFORMED USING "CARIS HIPS" HDCS SOFTWARE AND TERRA SURVEYS, LLC PROPRIETARY SOFTWARE.
6. THIS SURVEY INDICATES GENERAL CONDITIONS AT THE TIME OF SURVEY.
7. PRIOR TO COMMENCEMENT OF THIS SURVEY, RECORD CONTROL, PROJECT LIMITS AND AIDS TO NAVIGATION COORDINATES WERE CONVERTED FROM NAD27, IN US SURVEY FEET, TO NAD83, IN US SURVEY FEET, USING "CORPSCON V5.11.08".

CONTROL DATA

STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
AIL 2, 1948	1,982,426.56	2,308,963.89	12.69	USCGS TRI STA SBC
BAND 2, 1948	1,981,008.04	2,308,943.63	–	USCGS SBC
CORN 2, 1948	1,981,339.65	2,310,560.44	9.06	USCGS TRI STA SBC
WHN–1, 1997	1,985,054.32	2,309,225.14	9.74	USACE DOMED BC
WHN–2, 1997	1,980,854.89	2,310,037.89	13.76	USACE DOMED BC
WHN–3, 2001	1,983,769.91	2,310,360.29	11.13	SET 3.25" DOMED BC
WHN–4, 2001	1,980,481.21	2,309,144.84	10.76	SET 3.25" DOMED BC
BM–1, 1896	–	–	13.32	COPPER BOLT
BM–2, 1896	–	–	11.96	COPPER BOLT

PROJECT LIMITS

CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
1	1,980,480	2,310,290	6	1,980,945	2,310,442
2	1,981,358	2,310,114	7	1,980,480	2,310,598
3	1,982,980	2,309,635	8	1,982,855	2,310,115
4	1,983,264	2,309,708	9	1,982,980	2,310,044
5	1,982,802	2,309,974			

☆ NAVIGATION AIDS ☆

USCG No.	DESCRIPTION	NORTHING	EASTING
25095	ROCK LIGHTED BUOY 13	1,980,538	2,310,300
25100	WHITESTONE POINT LIGHT 14	1,981,296	2,310,568
25105	CHANNEL BUOY 15	1,982,270	2,309,856
25110	CHANNEL LIGHTED BUOY 17	1,982,821	2,309,733
25115	WHITESTONE SANDSPIT BUOY 18	1,983,736	2,309,569
25120	CHANNEL RANGE FRONT LIGHT	1,984,530.0	2,309,500.4
25125	CHANNEL RANGE REAR LIGHT	1,984,896.6	2,309,413.3

VOLUME COMPUTATIONS

Project Depth –24' MLLW

MINIMUM PAY LINE (–24' MLLW)	277 (cubic yards)
Between MINIMUM PAY LINE and MAXIMUM PAY LINE (–25' MLLW)	113 (cubic yards)
SIDESLOPES (3:1)	745 (cubic yards)
TOTAL	1,135 (cubic yards)

CONTRACT NO. DACW85–98–D–0004

CONTRACTOR TERRA SURVEYS, LLC

CITY PALMER CITY ALASKA

ALASKA DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

NEVA STRAIT, ALASKA
WHITESTONE NARROWS
PROJECT CONDITION SURVEY
MAY 10, 2001

SURVEYED:	KDW
DRAWN:	SGB
CHECKED:	TSN
SUBMITTED:	

RECOMMENDED: PROJECT MANAGER

APPROVED: CHIEF OPERATIONS–READINESS BRANCH

DATE:

SURVEY NO. 1916–01

SCALE: 1"= 100'

SHEET 1 OF 1