

CENTRAL LINE	STATION NUMBER	COORDINATES NORTH	COORDINATES EAST
	CLOID+001	144680.7087	13403806.5955

CHANNEL LINE	STATION NUMBER	COORDINATES NORTH	COORDINATES EAST
	12	144774.0421	13403802.4978
	13	144587.3753	13403770.6960
	14	144641.2022	13404327.1245
	15	144361.1986	13404219.4192
	16	144461.6858	13404793.8391
	17	144181.6817	13404686.1336

**LEGEND**

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THE TIME.

**LOW WATER DATUM**

ELEVATIONS AND PROJECT DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM, (1985)

**GRID COORDINATES**

GRIDS SHOWN ARE BASED ON NATIONAL GEODETIC SURVEY PROJECTION TABLES, STATE OF MICHIGAN, SOUTH ZONE (12113), LAMBERT PROJECTION, 1983 NORTH AMERICAN DATUM.

ALL COORDINATES ARE IN U.S. SURVEY FEET.

**DIRECTIONS**

ALL DIRECTIONS ARE GRID AZIMUTHS REFERRED TO NORTH ZERO.

PROJECT DEPTHS ARE AS INDICATED ABOVE.

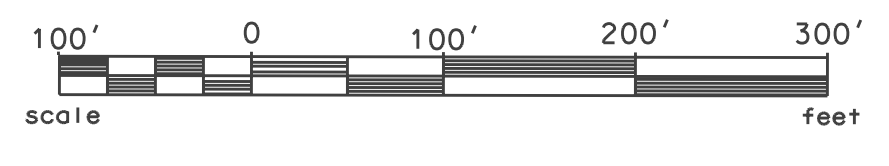
THE AUTOMATED ELECTRONIC SURVEY WAS CONDUCTED BY JOHN C. HAAS AND JOSEPH D. PERCELL, ABOARD THE USACE SURVEY VESSEL "WHEELER"

**AUTOMATED EQUIPMENT USED**

POSITIONING: TSS POS-MV  
 SOFTWARE: HYPACK HYSWEEP  
 SONIC SOUNDERS: RESON SEABAT 8125

**NOTES:**

- GAGES USED WERE OBTAINED ELECTRONICALLY FROM NOAA LAKE AT FORT WAYNE, MICHIGAN, VIA THE INTERNET.
- POSITIONS WERE DETERMINED BY GPS REFERENCE BEACON 838 LOCATED AT FORT WAYNE, DETROIT, MICHIGAN. FREQUENCY 319 KHZ AT 200 BPS.
- DEPTH MEASURED USING RESON SEABAT 8125 ULTRA HIGH RESOLUTION FOCUSED MULTIBEAM SONAR SYSTEM AND ODOM DIGIBAR PRO DB1200 VELOCITY PROFILER.
- EDITED MULTIBEAM SOUNDINGS WERE SORTED INTO A 37 FT. BY 15 FT. MATRIX; THE AVERAGE OF THE SOUNDINGS LOCATED IN EACH CELL WAS THEN SELECTED FOR PLOTTING AT THE CELL CENTER.



21.0 ft. PROJECT DEPTH CONTOUR

DRAWN BY: R. W. P.		REVISION:	BY:
DESIGNED BY:		DATE:	
CHECKED BY:		APPROVAL:	
REVIEWED:		DATE:	
SUBMITTED:		APPROVAL RECOMMENDED:	
APPROVED:		DATE:	
CHIEF, CONST - OMS DIVISION		CHIEF, DIS BRANCH	
SCALE 1" = 100'		DRAWING NUMBER	
SHEET 3 OF 8		mon3s1010.dgn	

U.S. ARMY ENGINEER DISTRICT, DETROIT  
 CORPS OF ENGINEERS  
 DETROIT, MICHIGAN

DETROIT AREA OFFICE 18 OCTOBER 2010  
**MONROE HARBOR, MICH.**  
 C.S. 10+00W TO C.S. 24+00E  
 MULTIBEAM CONDITION SWEEP SURVEY  
 AVERAGE DEPTH PLOT