



LAKE MICHIGAN



**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, CENTRAL ZONE (2112), LAMBERT PROJECTION, 1983 NORTH AMERICAN DATUM.

**DIRECTIONS**  
 ALL DIRECTIONS ARE GRID AZIMUTHS REFERRED TO NORTH ZERO.

PROJECT DEPTHS ARE AS SHOWN ON DRAWING.

THE AUTOMATED ELECTRONIC SURVEY WAS CONDUCTED BY FRED LEECH, PARTY CHIEF, ABOARD THE USACE SURVEY VESSEL WHEELER

**AUTOMATED EQUIPMENT USED**  
 POSITIONING: TSS POS-MV  
 DATA PROCESSOR: DELL 330 PC  
 SOFTWARE: HYPACK  
 PLOTTER: ENCAD CADJET 2  
 SONIC SOUNDER: RESON SEABAT 8125

- NOTES:**
- GAGES USED WERE OBTAINED FROM NOAA GAGE SITES AT PORT INLAND AND MACKINAW CITY, VIA THE INTERNET
  - POSITIONS WERE DETERMINED BY DGPS
  - DEPTH MEASURED USING SEABAT 8125 ULTRA HIGH RESOLUTION FOCUSED MULTI-BEAM ECHOSOUNDER SYSTEM.
  - PROJECT DEPTH FOR THIS AREA IS 25.0 FEET.

NO.	DATE	REVISION	BY
<b>U.S. ARMY ENGINEER DISTRICT, DETROIT</b> <b>CORPS OF ENGINEERS</b> <b>DETROIT, MICHIGAN</b>			
DESIGNED BY:*	DETROIT AREA OFFICE		23 JUNE 2004
DRAWN BY:*	<b>LAKE MICHIGAN</b> <b>GRAY'S REEF PASSAGE</b>		
CHECKED BY:*	CS 0+00 TO CS 50+00 <b>STRIKE PLOT</b> MULTI-BEAM SWEEP SURVEY RESULTS		
REVIEWED BY:*	SCALE AS SHOWN		
CADD FILE NAME		GPM02A00.DGN	
CHIEF, TECHNICAL SUPPORT SECTION		DRAWING NUMBER	
[* AS REQUIRED BY ENGINEERING CIRCULAR 1110-1-761		Gr1s0604.dgn	
SHEET 1 OF 2			