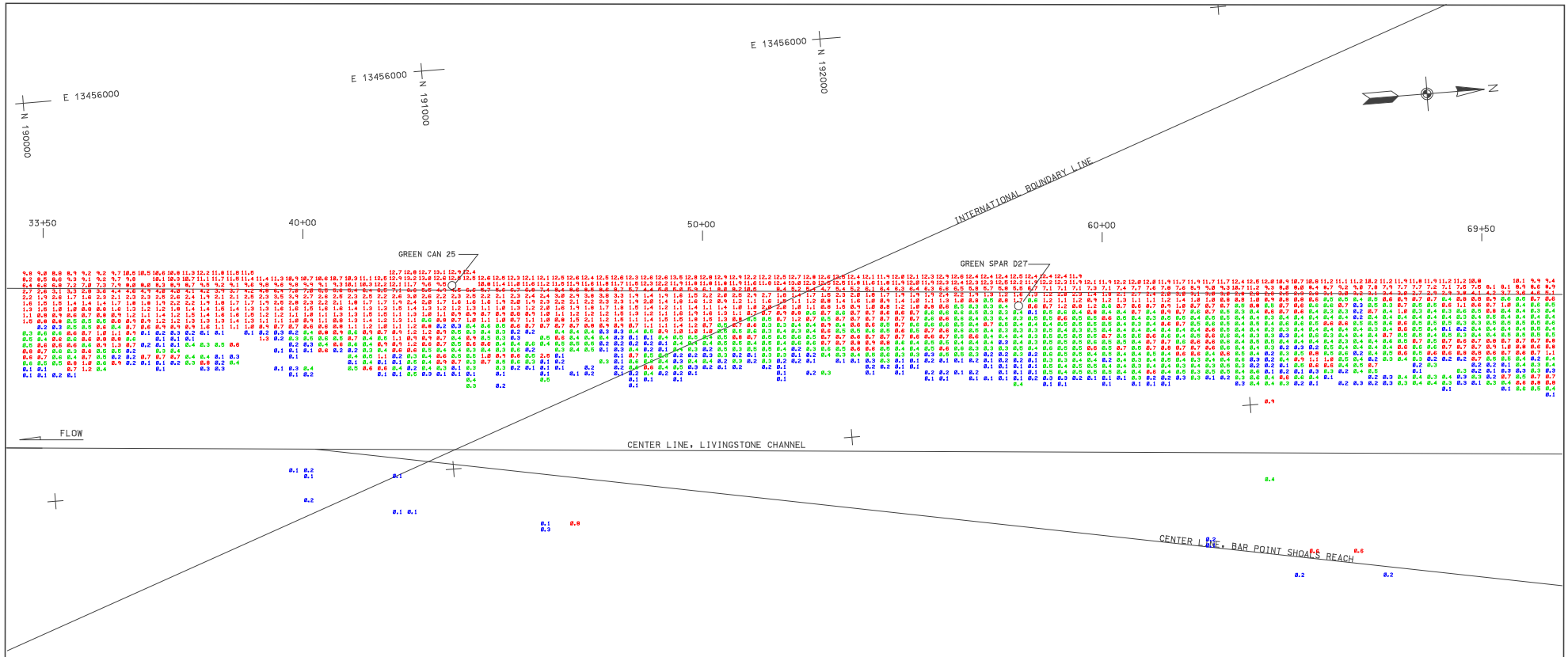

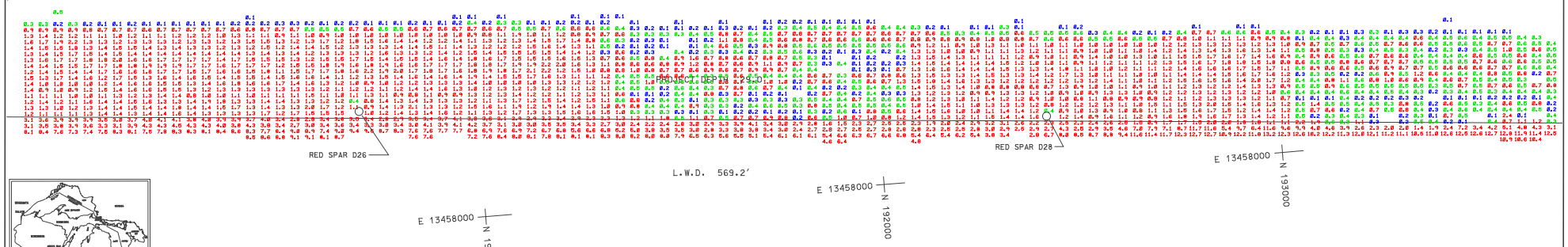

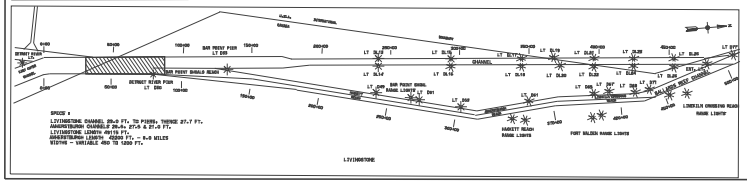

LEGEND

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 (2113). 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 USACOE SURVEY VESSEL WHEELER

AUTOMATED EQUIPMENT USED

POSITIONING:	TSS POS-MV
DATA PROCESSOR:	DELL 330 PC
SOFTWARE:	HYPACK
PLOTTER:	ENCAD, CADJET 2
SONIC SOUNDER:	RESON 8125 SONAR

NOTES:

1. GAGES USED WERE OBTAINED ELECTRONICALLY FROM NOAA GAGES AT GIBRALTAR AND FERMI, VIA THE INTERNET.
2. POSITIONS WERE DETERMINED BY GPS REFERENCE BEACON 839, LOCATED AT FORT WAYNE DETROIT, MICHIGAN - FREQUENCY 319 KHZ, 200 BPS
3. DEPTH MEASURED USING SEABAT 8125 ULTRA HIGH RESOLUTION FOCUSED MULTIBEAM ECHOSOUNDER SYSTEM

100' 0' 100' 200'
SCALE

NO.	DATE	REVISION	BY

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

DETROIT AREA OFFICE — 7 JUNE 2004

DETROIT RIVER, MICHIGAN

LIVINGSTONE CHANNEL
CS 33+50 TO CS 69+50
MULTI-BEAM SURVEY RESULTS
MINUMUM STRIKE PLOT

DESIGNED BY:
DRAWN BY:
CHECKED BY:
REVIEWED BY:
SUBMITTED BY: P.E.
CHIEF, PROJ DPNS SEC
APPROVED: P.E.
CHIEF, CONSTRUCTION - OPERATIONS DIVISION

APPROVAL RECOMMENDED: P.E. DATE
CHIEF, OPERATIONS TECHNICAL SUPPORT BRANCH

SCALE AS SHOWN

SHEET 2 OF 14

DRAWING NUMBER
Lc2a0604.dgn