

**SURVEY NOTES:**  
 1) HORIZONTAL DATUM:  
 NAD83 (2011) MISSOURI EAST 2401, US SURVEY FOOT  
 2) VERTICAL DATUM:  
 NAVD88 (GEOID18), FOOT  
 3) DEPTHS SHOWN ARE BELOW LWRP2014 SURFACE.  
 4) SURVEY INFORMATION:  
 SURVEY VESSEL: BOWEN1 (24' SCULLY'S WORK BOAT)  
 ECHO SOUNDER: TELEDYNE ECHOTRAC E20  
 TRANSDUCER: ODOM SMSW200-4 (4" BEAM, 200 KHz)  
 SOUND VELOCITY SOURCE: VALEPORT SWIFT SVP  
 INS: SBG ELLIPSE2-E-G4A2-B1  
 GNSS RECEIVER: TRIMBLE MPS865 WITH DUAL ANTENNAS  
 GNSS SOURCE: TRIMBLE CENTERPOINT RTX  
 TIDE METHOD: REAL-TIME KINEMATIC  
 TIDE SOURCE: TRIMBLE CENTERPOINT RTX  
 5) THE SURVEY WAS COMPLETED IN ACCORDANCE WITH QUALITY CONTROL PLAN PROCEDURES.

JULY 6, 2023  
 INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 10:00	WSE @ 12:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 12:00
101	341.30	341.23	335.47	5.83	5.76
102	341.85	341.78	336.01	5.84	5.76
103	342.40	342.32	326.59	5.81	5.73
104	342.94	342.86	337.51	5.73	5.65

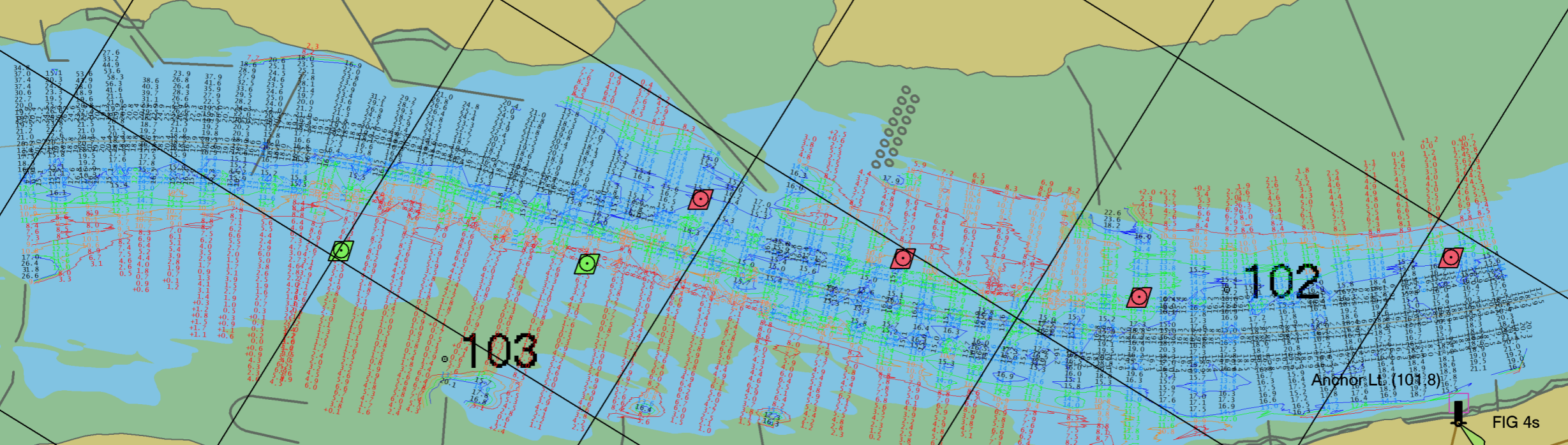
GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
94.1	Red Rock Landing, MO	328.38	10:00	9.15	12:00	9.12
109.9	Chester, IL	340.73	10:00	5.44	12:00	5.32

ILLINOIS

ILLINOIS

MISSOURI



St. Louis District

DATE	BY

DATES OF SURVEY: JUL 6, 2023	FILE NO.: 1030623
SCALE: 1" = 800' (ANSI B)	REQUEST NO.: W91P923F086

Approved: _____ FIELD CHARTERMASTER	Approved: _____ CIVIL ENGINEERING TECHNICIAN
Approved: _____ ASST. CHIEF OF SURVEY	Approved: _____ CHIEF OF SURVEY
Date: _____	Date: _____

U.S. ARMY CORPS OF ENGINEERS  
 ST. LOUIS DISTRICT  
 ST. LOUIS, MISSOURI

SURVEYED BY:  
 BOWEN ENGINEERING AND SURVEYING, P.C.  
 2131 MEGAN DRIVE  
 CAPE GIRARDEAU, MO 63701

UPPER MISSISSIPPI RIVER  
 BASIN  
 MISSISSIPPI RIVER  
 PRE DREDGE SURVEY  
 RIVER MILES 103.5 - 101.7

SHEET NO.