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: ODOM DIGIBAR S VELOCIMETER
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.

N.450,000 E 1,190,000 N.448,000 N.446,000 E 1,192,000 N.444,000 E 1,194,000 N.442,000

Boston Chute

Boston Bar

Boston Bar

ILLINOIS

MISSOURI

FIG 4s

N

Scale: 1 Inch = 800.00 Feet

500 1000 2000 3000 4000 Feet

N.446,000 E 1,184,000 N.442,000 E 1,186,000 N.440,000 N.438,000 E 1,188,000

AUGUST 31, 2022
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 16:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 16:00
9	287.43	287.53	283.67	3.76	3.86
10	288.00	288.08	284.21	3.79	3.87
11	288.56	288.64	284.58	3.98	4.06

GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
2.0	Birds Point, MO	273.91	9:00	9.56	16:00	9.72
20.2	Thompson Landing, MO	279.03	9:00	14.74	16:00	14.73

St. Louis District

DATES OF SURVEY:
AUGUST 31, 2022

FILE NO.: 010H3122
REQUEST NO.: W912P922F0051

SCALE:
1" = 800' (ANSI B)

FIELD BOOKS:

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

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

SURVEYED BY:
BOWEN ENGINEERING AND SURVEYING, P.C.
2121 MEGAN DRIVE
CAPE GIRARDEAU, MO 63701

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER
PRE DREDGE SURVEY
RIVER MILES 10.3 - 9.2

SHEET NO.
1 OF 1