



St. Louis District

SURVEY NOTES:

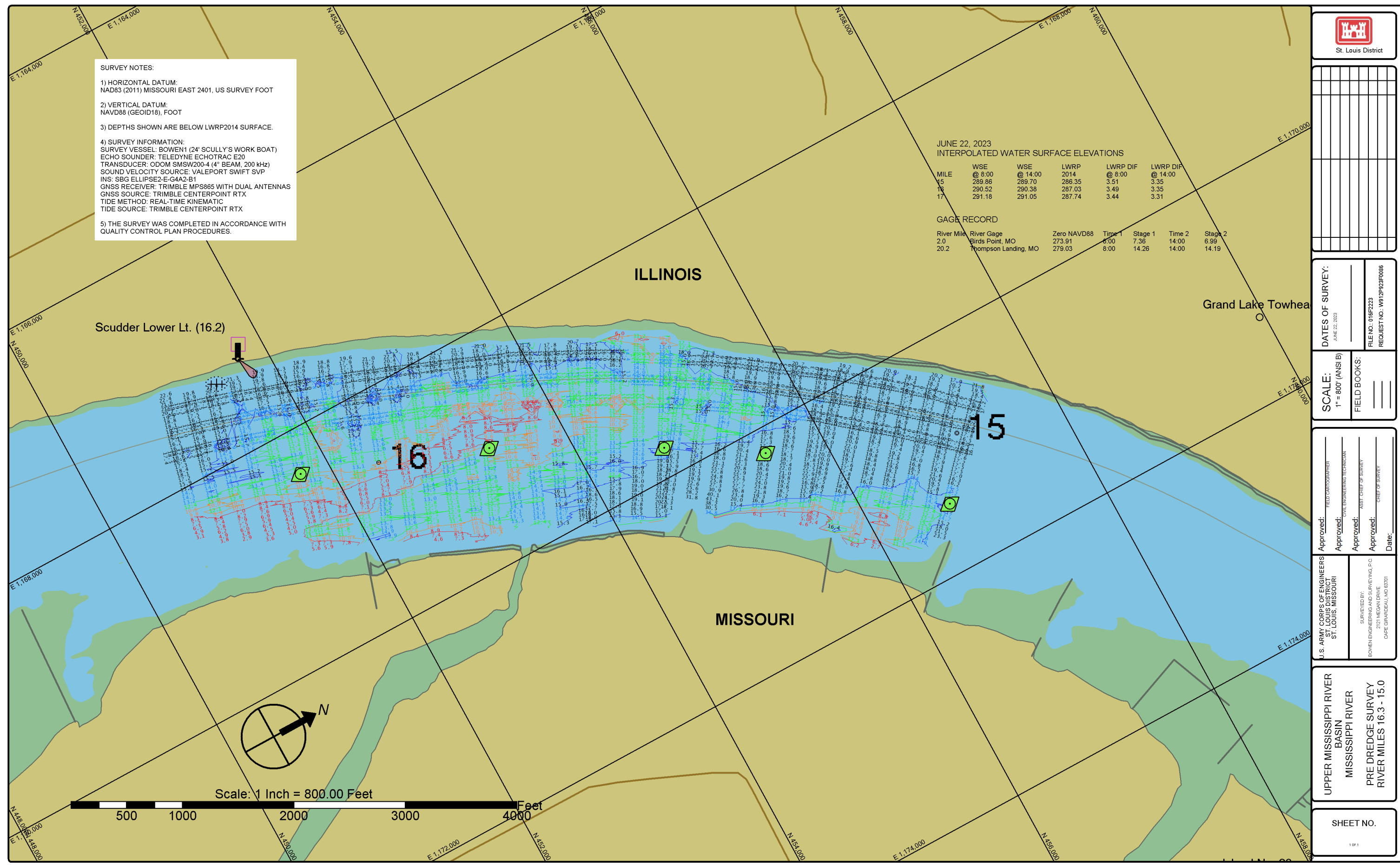
- 1) HORIZONTAL DATUM:
NAD83 (2011) MISSOURI EAST 2401, US SURVEY FOOT
- 2) VERTICAL DATUM:
NAVD88 (GEOID18), FOOT
- 3) DEPTHS SHOWN ARE BELOW LWRP2014 SURFACE.
- 4) SURVEY INFORMATION:
SURVEY VESSEL: BOWEN1 (24' SCULLY'S WORK BOAT)
ECHO SOUNDER: TELEDYNE ECHOTRAC E20
TRANSDUCER: ODOM SMSW200-4 (4" BEAM, 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.

**JUNE 22, 2023
INTERPOLATED WATER SURFACE ELEVATIONS**

MILE	WSE @ 8:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 8:00	LWRP DIF @ 14:00
15	289.86	289.70	286.35	3.51	3.35
16	290.52	290.38	287.03	3.49	3.35
17	291.18	291.05	287.74	3.44	3.31

GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
2.0	Birds Point, MO	273.91	8:00	7.36	14:00	6.99
20.2	Thompson Landing, MO	279.03	8:00	14.26	14:00	14.19



DATES OF SURVEY:
JUNE 22, 2023

SCALE:
1" = 800' (ANSI B)

FIELD BOOKS:

Approved: _____
FIELD CARTOGRAPHER

Approved: _____
CIVIL ENGINEERING TECHNICIAN

Approved: _____
ASST. CHIEF OF SURVEY

Approved: _____
CHIEF OF SURVEY

Date: _____

J.S. ARMY CORPS OF ENGINEERS
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 16.3 - 15.0

SHEET NO.
1 OF 1