



St. Louis District

**SURVEY NOTES:**

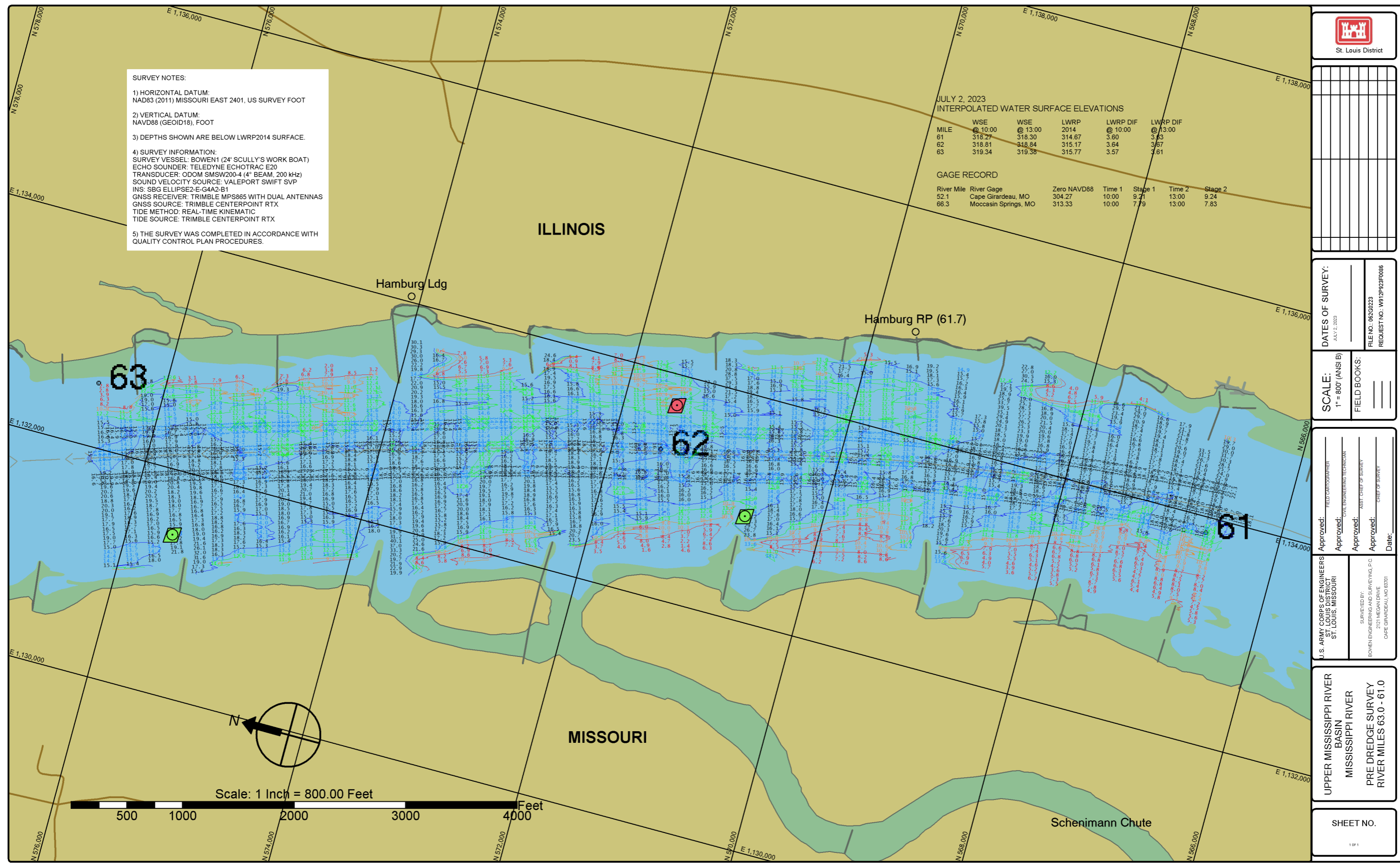
- 1) HORIZONTAL DATUM:  
NAD83 (2011) MISSOURI EAST 2401, US SURVEY FOOT
- 2) VERTICAL DATUM:  
NAVD88 (GEOID18), FOOT
- 3) DEPTHS SHOWN ARE BELOW LWRP2014 SURFACE.
- 4) SURVEY INFORMATION:  
SURVEY VESSEL: BOWEN1 (24' SCULLY'S WORK BOAT)  
ECHO SOUNDER: TELEDYNE ECHOTRAC E20  
TRANSDUCER: ODOM SMSW200-4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

**JULY 2, 2023  
INTERPOLATED WATER SURFACE ELEVATIONS**

MILE	WSE @ 10:00	WSE @ 13:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 13:00
61	318.27	318.30	314.67	3.60	3.63
62	318.81	318.84	315.17	3.64	3.67
63	319.34	319.38	315.77	3.57	3.61

**GAGE RECORD**

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
52.1	Cape Girardeau, MO	304.27	10:00	9.71	13:00	9.24
66.3	Moccasin Springs, MO	313.33	10:00	7.79	13:00	7.83



**DATES OF SURVEY:**  
JULY 2, 2023

**FILE NO.:** 06250223  
**REQUEST NO.:** W91P23P086

**SCALE:**  
1" = 800' (ANSI B)

**FIELD BOOKS:**

**Approved:** FIELD CHARTERER  
**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.  
2131 MEGAN DRIVE  
CAPE GIRARDEAU, MO 63701

**UPPER MISSISSIPPI RIVER  
BASIN  
MISSISSIPPI RIVER  
PRE DREDGE SURVEY  
RIVER MILES 63.0 - 61.0**

**SHEET NO.**  
1 OF 1