

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.

JANUARY 4, 2023  
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 13:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 13:00
166	375.07	375.16	368.31	6.76	6.85
167	375.54	375.63	368.58	6.96	7.05
168	376.01	376.10	369.21	6.80	6.89
169	376.51	376.59	369.97	6.54	6.62

GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
151.9	Herculeanum, MO	368.23	9:00	0.19	13:00	0.28
168.7	Jefferson Barracks, MO	377.34	9:00	1.00	13:00	-0.91
176.8	Engineers Depot, MO	378.98	9:00	1.88	13:00	1.88



St. Louis District

DATES OF SURVEY:  
JANUARY 4, 2023

FILE NO. 168A423  
REQUEST NO. W912P232FD004

SCALE:  
1" = 800' (ANSI B)

FIELD BOOKS:

Approved:

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

Approved:

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ST. LOUIS DISTRICT  
ST. LOUIS, MISSOURI

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ST. LOUIS DISTRICT  
ST. LOUIS, MISSOURI

Date:

UPPER MISSISSIPPI RIVER  
BASIN  
MISSISSIPPI RIVER

POST DREDGE SURVEY  
RIVER MILES 168.8 - 166.2

SHEET NO.

1 OF 2

E 888.000

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ILLINOIS

166

BARGE

BARGE

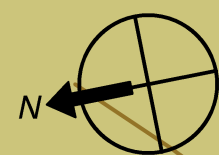
BARGE

BARGE

BARGE

BARGE

MISSOURI



Scale: 1 Inch = 800.00 Feet

500

1000

2000

3000

4000

Feet



St. Louis District

DATES OF SURVEY:  
JANUARY 4, 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: \_\_\_\_\_

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  
POST DREDGE SURVEY  
RIVER MILES 168.8 - 166.2

SHEET NO.

2 OF 2