DEGONIA

ILLINOIS

MISSOURI

WILKINSON LANDING

748.000 E

750.000 E

752.000 E

754.000 E

746.000 E

744.000 E

700.000 N

698.000 N

696.000 N

694.000 N

692.000 N

690.000 N

DIKE 93.25(L)

DIKE 93.1(L)

DIKE 93.0(L)

DIKE 92.6(L)

DIKE 92.3(L)

DIKE 92.05(L)

DIKE 91.8(L)

DIKE 91.6(L)

DIKE 91.6(R)

DIKE 91.4(R)

DIKE 91.1(R)

93

1. SOUNDED OCTOBER 2, 2012 BY BOWEN ENGINEERING AND SURVEYING.
2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27), COORDINATES SHOWN ARE MISSOURI EAST ZONE STATE PLANE.
3. VERTICAL DATUM IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).

Depths shown are below LWRP
Red solid contours are 9' below LWRP
Green dashed contours are 12' below LWRP
Blue dashed contours are 14' below LWRP

SOUNDING BUOY

OCTOBER 2, 2012
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 8:00	WSE @ 13:00	LWRP	LWRP DIF @ 8:00	LWRP DIF @ 13:00
88	329.43	329.32	328.03	1.40	1.29
89	329.85	329.74	328.48	1.37	1.26
90	330.28	330.17	328.92	1.36	1.25
91	330.70	330.59	329.36	1.34	1.23
92	331.13	331.02	329.81	1.32	1.21

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	GRAND TOWER, IL	RED ROCK LANDING, MO
ZERO N.G.V.D.	321.93	328.92
MILE	81.9	94.1
L.W.R.P.	325.3	330.7
02 OCT 2012	4.90E+001 4.80E+001	3.90E+001 2.99E+001

ELEVATIONS ARE REFERED TO N.G.V.D. - CONTOURS ARE BELOW 1958-93 LOW WATER REFERENCE PLANE (LWRP) (54,000 C.F.S.)

Surveyed by: BOWEN ENGINEERING | Survey Date: OCTOBER 2, 2012
Drawn by: X | Ckd by: X | Reviewed by: X
SUBMITTED: X | APPROVED: X
Plot date: ########
File name: ########

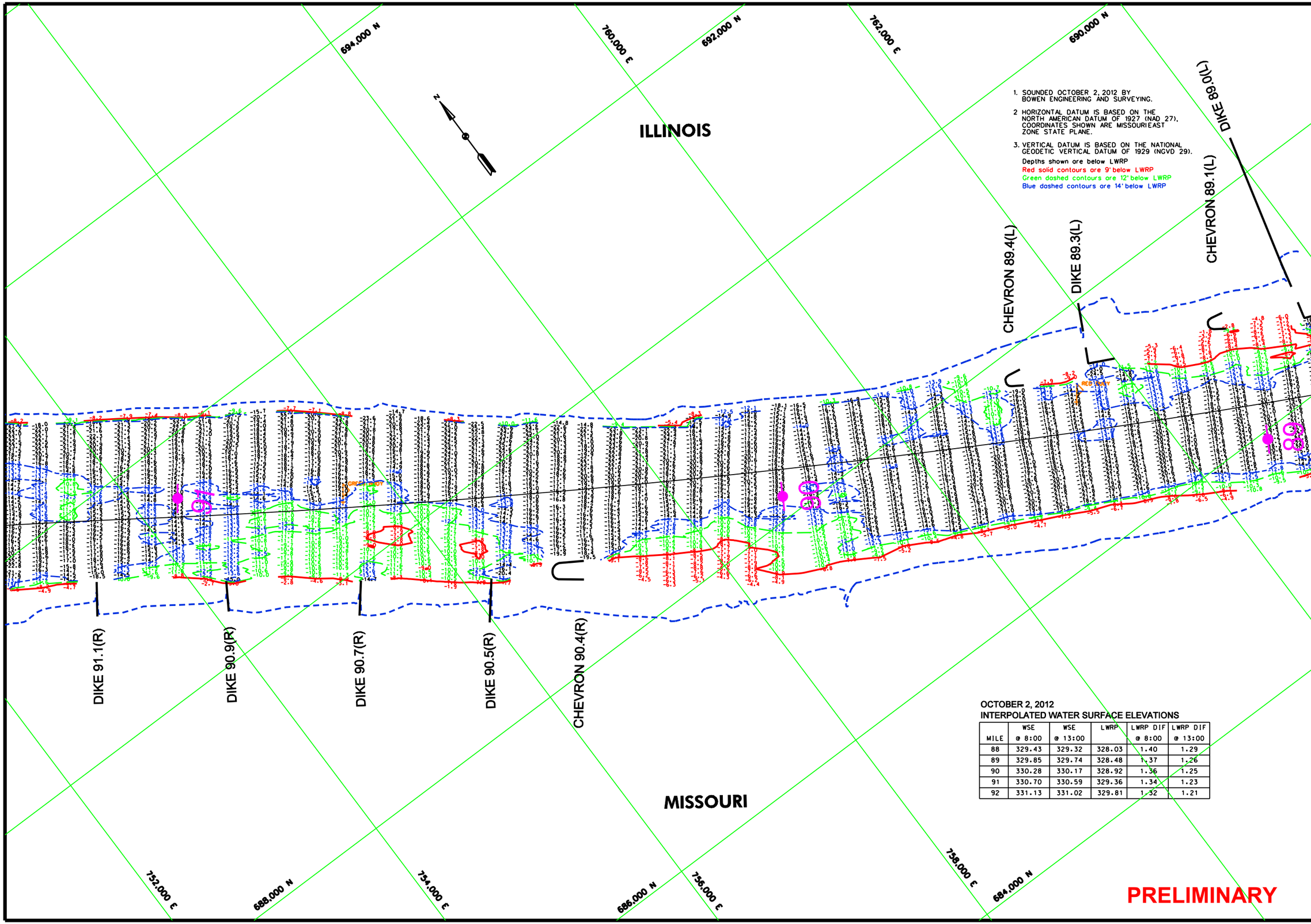
U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

240 METERS
120
0
0
800 FEET
400
THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE BY THE ST. LOUIS DISTRICT, CORPS OF ENGINEERS AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

PRE DREDGE SURVEY
RIVER MILES 92.0 - 85.0

PLATE NUMBER
XX
SHEET 1 OF 4



1. SOUNDED OCTOBER 2, 2012 BY BOWEN ENGINEERING AND SURVEYING.
2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27). COORDINATES SHOWN ARE MISSOURIEAST ZONE STATE PLANE.
3. VERTICAL DATUM IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).

Depths shown are below LWRP
Red solid contours are 9' below LWRP
Green dashed contours are 12' below LWRP
Blue dashed contours are 14' below LWRP

OCTOBER 2, 2012
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 8:00	WSE @ 13:00	LWRP	LWRP DIF @ 8:00	LWRP DIF @ 13:00
88	329.43	329.32	328.03	1.40	1.29
89	329.85	329.74	328.48	1.37	1.26
90	330.28	330.17	328.92	1.36	1.25
91	330.70	330.59	329.36	1.34	1.23
92	331.13	331.02	329.81	1.32	1.21

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	GRAND TOWER, IL	RED ROCK LANDING, MO
ZERO N.G.V.D.	321.93	328.92
MILE	81.9	94.1
L. W. R. P.	325.3	330.7
02 OCT 2012	4.90(8:00) 4.80(13:00)	3.10(8:00) 2.99(13:00)

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE (L.W.R.P.) (54,000 C.F.S.)

Surveyed by: BOWEN ENGINEERING
Survey Date: OCTOBER 2, 2012
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: 000DATE:TIME000
File name: 000DESIGN@FILE$SPECIFICATION000

U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

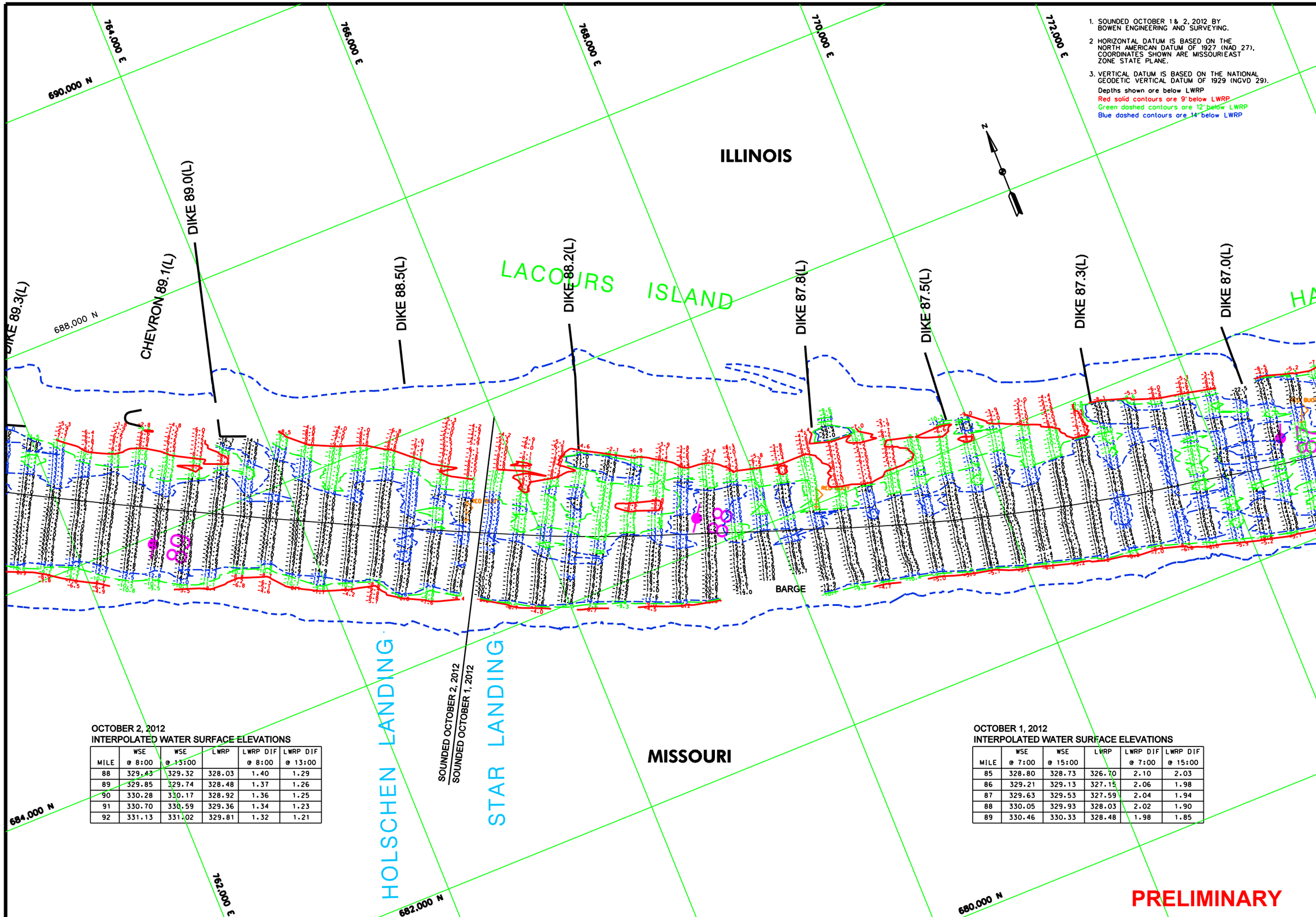
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

120 0 120 240 METERS
400 0 400 800 FEET

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

PRE DREDGE SURVEY
RIVER MILES 92.0 – 85.0

PLATE NUMBER
XX
SHEET 2 OF 4



1. SOUNDED OCTOBER 1 & 2, 2012 BY BOWEN ENGINEERING AND SURVEYING.
2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27), COORDINATES SHOWN ARE MISSOURIEAST ZONE STATE PLANE.
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Depths shown are below LWRP
Red solid contours are 9' below LWRP
Green dashed contours are 12' below LWRP
Blue dashed contours are 14' below LWRP

OCTOBER 2, 2012
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 8:00	WSE @ 13:00	LWRP	LWRP DIF @ 8:00	LWRP DIF @ 13:00
88	329.43	329.32	328.03	1.40	1.29
89	329.85	329.74	328.48	1.37	1.26
90	330.28	330.17	328.92	1.36	1.25
91	330.70	330.59	329.36	1.34	1.23
92	331.13	331.02	329.81	1.32	1.21

OCTOBER 1, 2012
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 7:00	WSE @ 15:00	LWRP	LWRP DIF @ 7:00	LWRP DIF @ 15:00
85	328.80	328.73	326.70	2.10	2.03
86	329.21	329.13	327.15	2.06	1.98
87	329.63	329.53	327.59	2.04	1.94
88	330.05	329.93	328.03	2.02	1.90
89	330.46	330.33	328.48	1.98	1.85

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	GRAND TOWER, IL	RED ROCK LANDING, MO
ZERO N.G.V.D.	321.93	328.92
MILE	81.9	94.1
L. W. R. P.	325.3	330.7
01 OCT 2012	5.58(7:00) 5.55(15:00)	3.66(7:00) 3.46(15:00)
02 OCT 2012	4.90(8:00) 4.80(13:00)	3.10(8:00) 2.99(13:00)

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE (L.W.R.P.) 154,000 C.F.S.)

Surveyed by: BOWEN ENGINEERING
Survey Date: OCTOBER 1 & 2, 2012
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: 00000/DATE/TIME/0000
File name: 00000/DESIGN/FILES/SPECIFICATION/00

U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

120 0 120 240 METERS
400 0 400 800 FEET

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

PRE DREDGE SURVEY
RIVER MILES 92.0 – 85.0

PLATE NUMBER
XX
SHEET 3 OF 4

ILLINOIS

MISSOURI

HAT ISLAND

PAUL LANDING

LEIMBACH LANDING

GILLS POINT

DIKE 87.0(L)
DIKE 86.7(L)
DIKE 86.5(L)
DIKE 86.2(L)
DIKE 86.0(L)
DIKE 85.7(L)
DIKE 85.5(L)
DIKE 85.2(L)
DIKE 86.4(R)
DIKE 86.0(R)
DIKE 85.9(R)
DIKE 85.7(R)
DIKE 85.5(R)
DIKE 85.2(R)
DIKE 85.1(R)
DIKE 85.0(R)

RED BUOY
GREEN BUOY

776,000 E
778,000 E
780,000 E
782,000 E
772,000 E
774,000 E
686,000 N
684,000 N
682,000 N
680,000 N
678,000 N

OCTOBER 1, 2012
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 7:00	WSE @ 15:00	LWRP	LWRP DIF @ 7:00	LWRP DIF @ 15:00
85	328.80	328.73	326.70	2.10	2.03
86	329.21	329.13	327.15	2.06	1.98
87	329.63	329.53	327.59	2.04	1.94
88	330.05	329.93	328.03	2.02	1.90
89	330.46	330.33	328.48	1.98	1.85

1. SOUNDED OCTOBER 1, 2012 BY BOWEN ENGINEERING AND SURVEYING.
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Depths shown are below LWRP
Red solid contours are 9' below LWRP
Green dashed contours are 12' below LWRP
Blue dashed contours are 14' below LWRP

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD	GRAND TOWER, IL	RED ROCK LANDING, MO
ZERO N.G.V.D.	321.93	328.92
MILE	81.9	94.1
L.W.R.P.	325.3	330.7
01 OCT 2012	5.387'000 5.515'000	3.667'000 3.461'5000

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1958-93 LOW WATER REFERENCE PLANE. (LWRP) (5X1,000 C.F.S.)

U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

Surveyed by: BOWEN ENGINEERING
Survey Date: OCTOBER 1, 2012
Drawn by: X
Chkd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ########
File name: ########

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

240 METERS 800 FEET
THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS PERFORMED BY THE ST. LOUIS DISTRICT CORPS OF ENGINEERS AT THE TIME AND DATE INDICATED. IT IS NOT GUARANTEED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

PRE DREDGE SURVEY
RIVER MILES 92.0 - 85.0

PLATE NUMBER XX
SHEET 4 OF 4