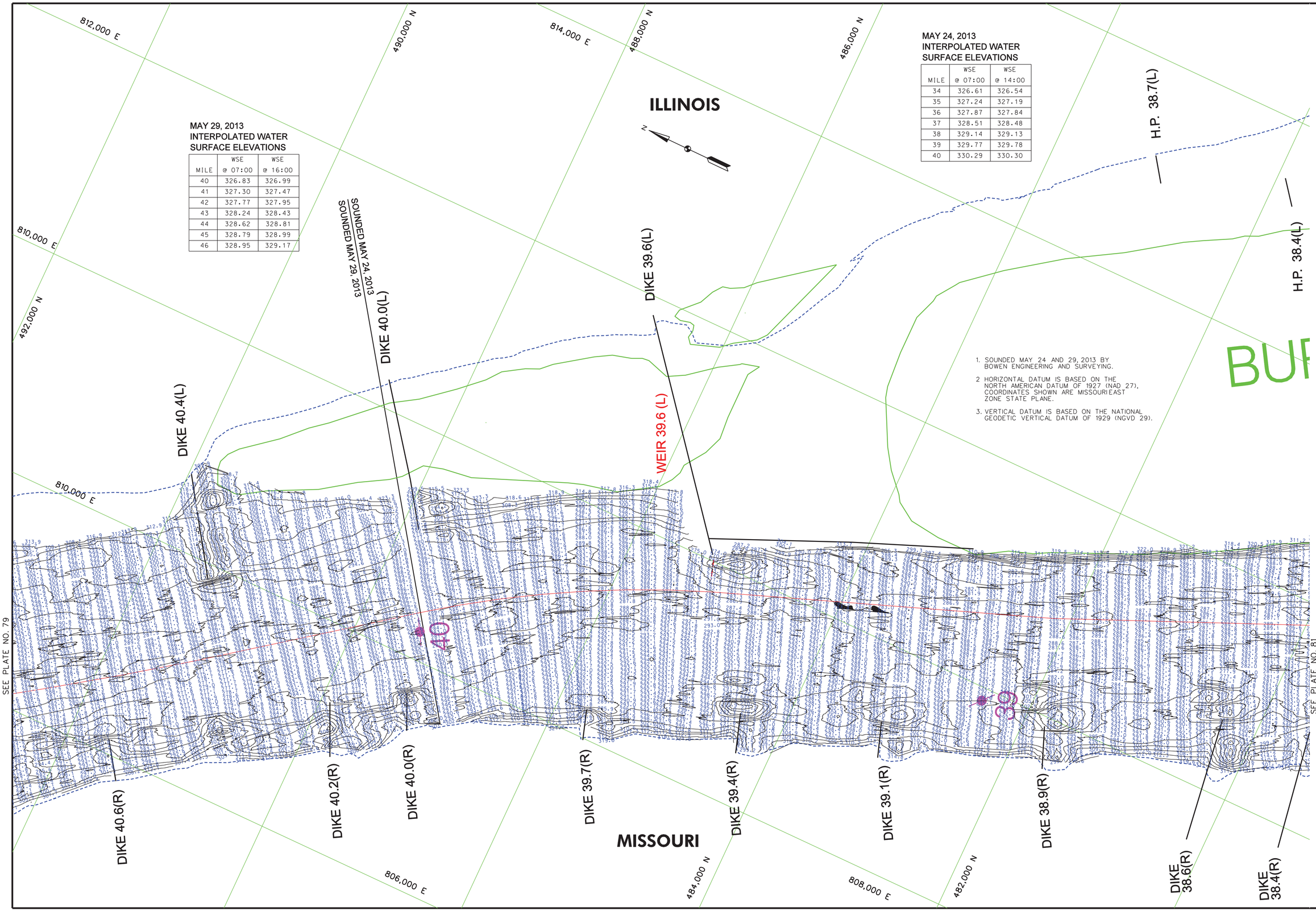


MAY 29, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 07:00	WSE @ 16:00
40	326.83	326.99
41	327.30	327.47
42	327.77	327.95
43	328.24	328.43
44	328.62	328.81
45	328.79	328.99
46	328.95	329.17

MAY 24, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 07:00	WSE @ 14:00
34	326.61	326.54
35	327.24	327.19
36	327.87	327.84
37	328.51	328.48
38	329.14	329.13
39	329.77	329.78
40	330.29	330.30

1. SOUNDED MAY 24 AND 29, 2013 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).

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	THOMPSON LANDING	PRICE'S LANDING	COMMERCE, MO	THEBES, IL
ZERO N.G.V.D.	280.00	299.75	301.83	300.00
MILE	20.2	28.2	39.5	43.7
L. W. R. P.	289.0	293.1	302.1	304.8
24 MAY 2013	GAGE NOT WORKING	23.18(7:00) 23.04(14:00)	28.26(7:00) 28.27(14:00)	31.81(7:00) 31.79(14:00)
29 MAY 2013	GAGE NOT WORKING	X	24.77(7:00) 24.92(16:00)	28.57(7:00) 28.76(16:00)

ELEVATIONS ARE REFERRED TO N.G.V.D.- CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE. IL.W.R.P.=154.000 C.F.S.

Surveyed by: BOWEN ENGINEERING
Survey Date: May 24 and 29, 2013
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

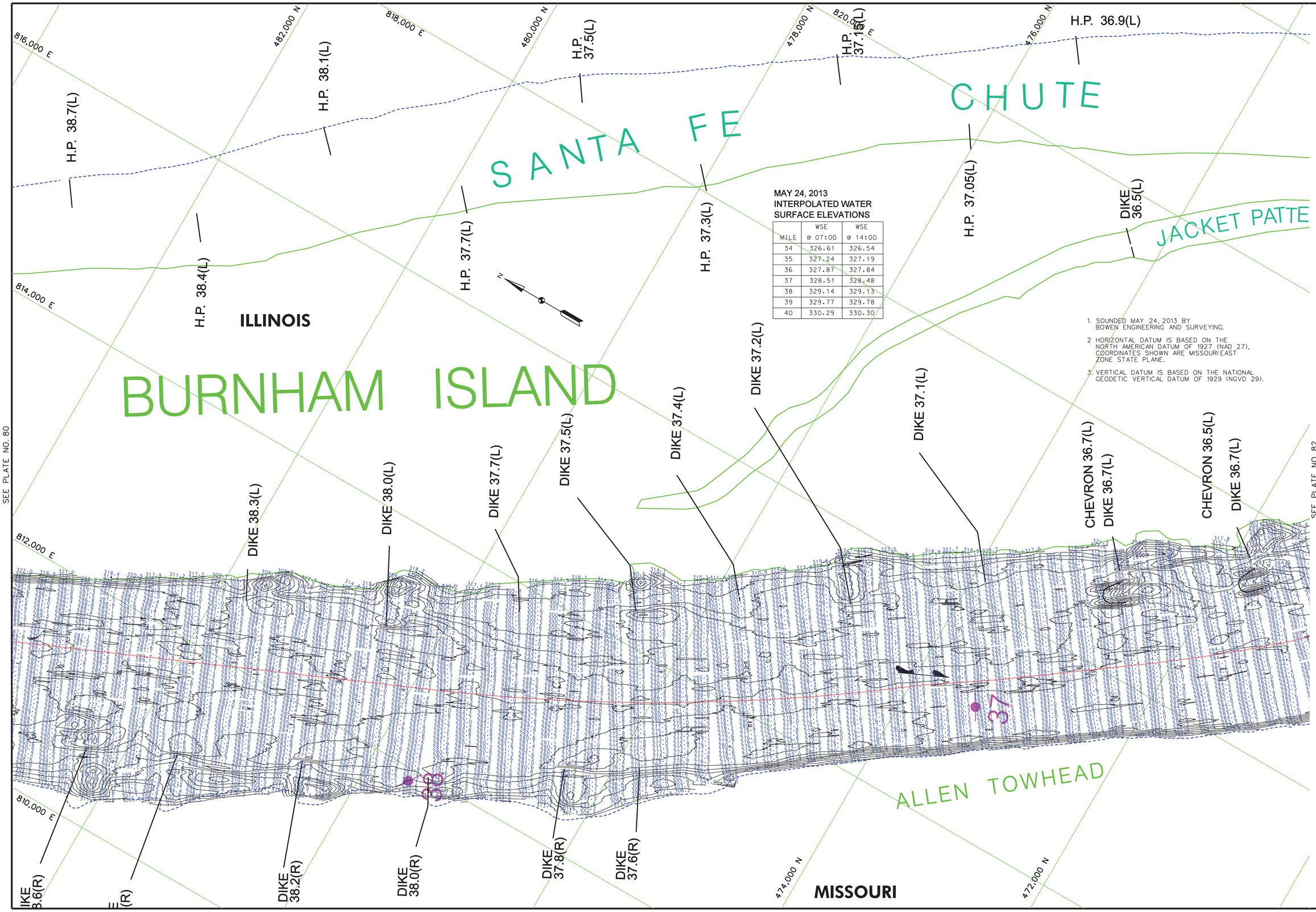
120 400 0 0 240 METERS 800 FEET

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE AT THE TIME SHOWN AND IS INTENDED TO BE REPRESENTATIVE AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

HYDROGRAPHIC SURVEYS

RIVER MILES 38.5 – 40.5

PLATE NUMBER
80



MAY 24, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 07:00	WSE @ 14:00
34	326.61	326.54
35	327.24	327.19
36	327.87	327.84
37	328.51	328.48
38	329.14	329.13
39	329.77	329.78
40	330.29	330.30

1. SOUNDED MAY 24, 2013 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).

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	THOMPSON LANDING	PRICE'S LANDING	COMMERCE, MO	THEBES, IL
ZERO N.G.V.D.	280.00	299.75	301.83	300.00
MILE	20.2	28.2	39.5	43.7
L. W. R. P.	289.0	293.1	302.1	304.8
24 MAY 2013	GAGE NOT WORKING	23.18/7.00/ 23.04/14:00	28.26/7.00/ 28.27/14:00	31.8/7.00/ 31.79/14:00

ELEVATIONS ARE REFERED TO N.G.V.D. - CONTOURS ARE BELOW 1954-57 LOW WATER REFERENCE PLANE (L.W.R.P.) 154,000 C.F.S.

Survey Date: May 24, 2013
Surveyed by: BOWEN ENGINEERING
Reviewed by: X
Drawn by: X
Ckd by: X
SUBMITTED: X
APPROVED: X
Plot date: ####DATE-TIME####
File name: ####DESIGNFILE\BSPECIFICATION####

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

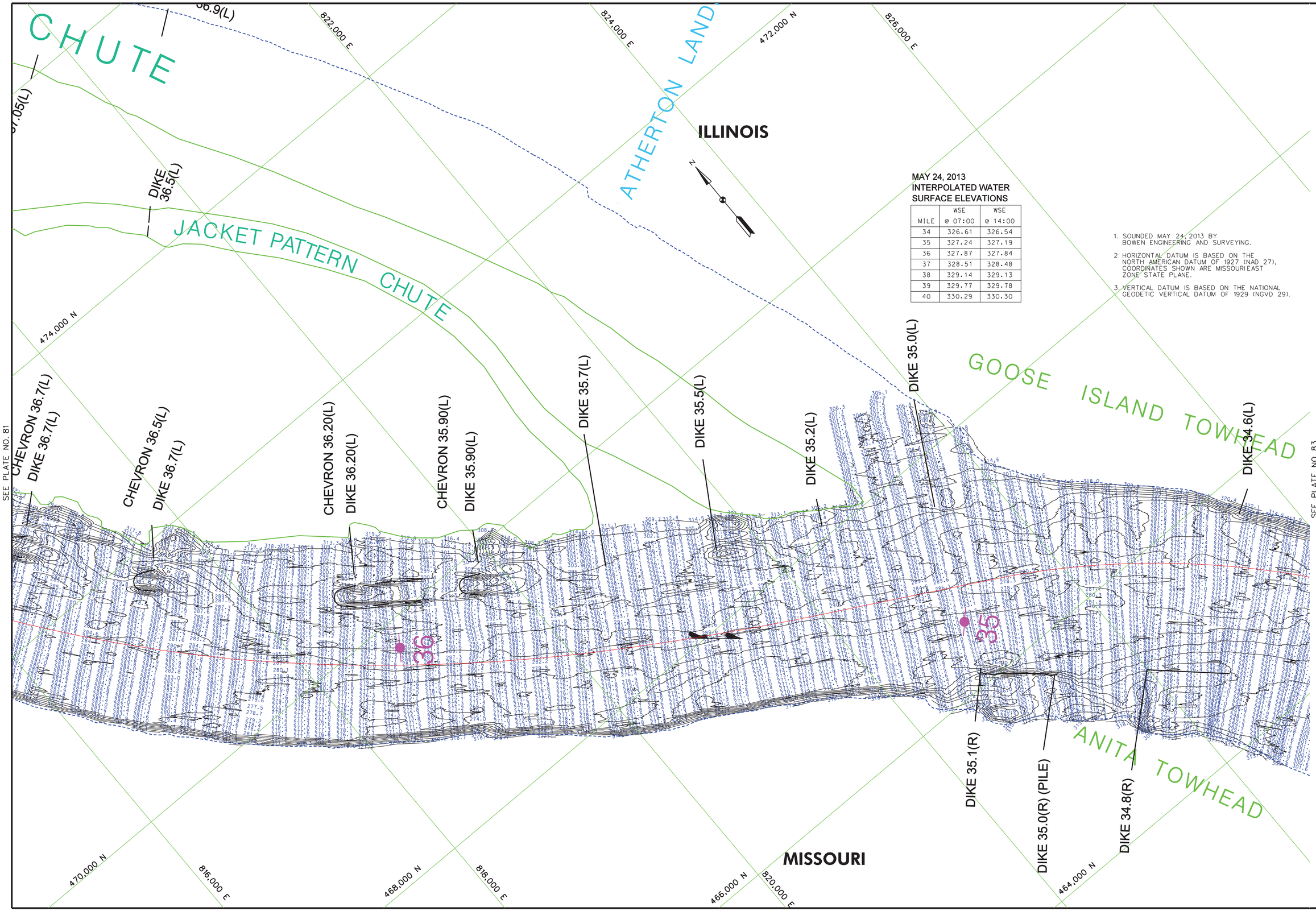
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

HYDROGRAPHIC SURVEYS
RIVER MILES 36.5 - 38.5

120 0 120 240 METERS
400 0 400 800 FEET

THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE AT THE TIME INDICATED AND MAY NOT BE REPRESENTATIVE AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

PLATE NUMBER
81



MAY 24, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 07:00	WSE @ 14:00
34	326.61	326.54
35	327.24	327.19
36	327.87	327.84
37	328.51	328.48
38	329.14	329.13
39	329.77	329.78
40	330.29	330.30

1. SOUNDED MAY 24, 2013 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).

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	THOMPSON LANDING	PRICE'S LANDING	COMMERCE, MO	THEBES, IL
ZERO N.G.V.D.	280.00	299.75	301.83	300.00
MILE	20.2	28.2	39.5	43.7
L. W. R. P.	289.0	293.1	302.1	304.8
24 MAY 2013	GAGE NOT WORKING	23.18(7:00) 23.04(14:00)	28.26(7:00) 28.27(14:00)	31.81(7:00) 31.79(14:00)

ELEVATIONS ARE REFERED 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: May 24, 2013
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ####DATE:TIME####
File name: ####DESIGN#FILE#SECTION#####

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

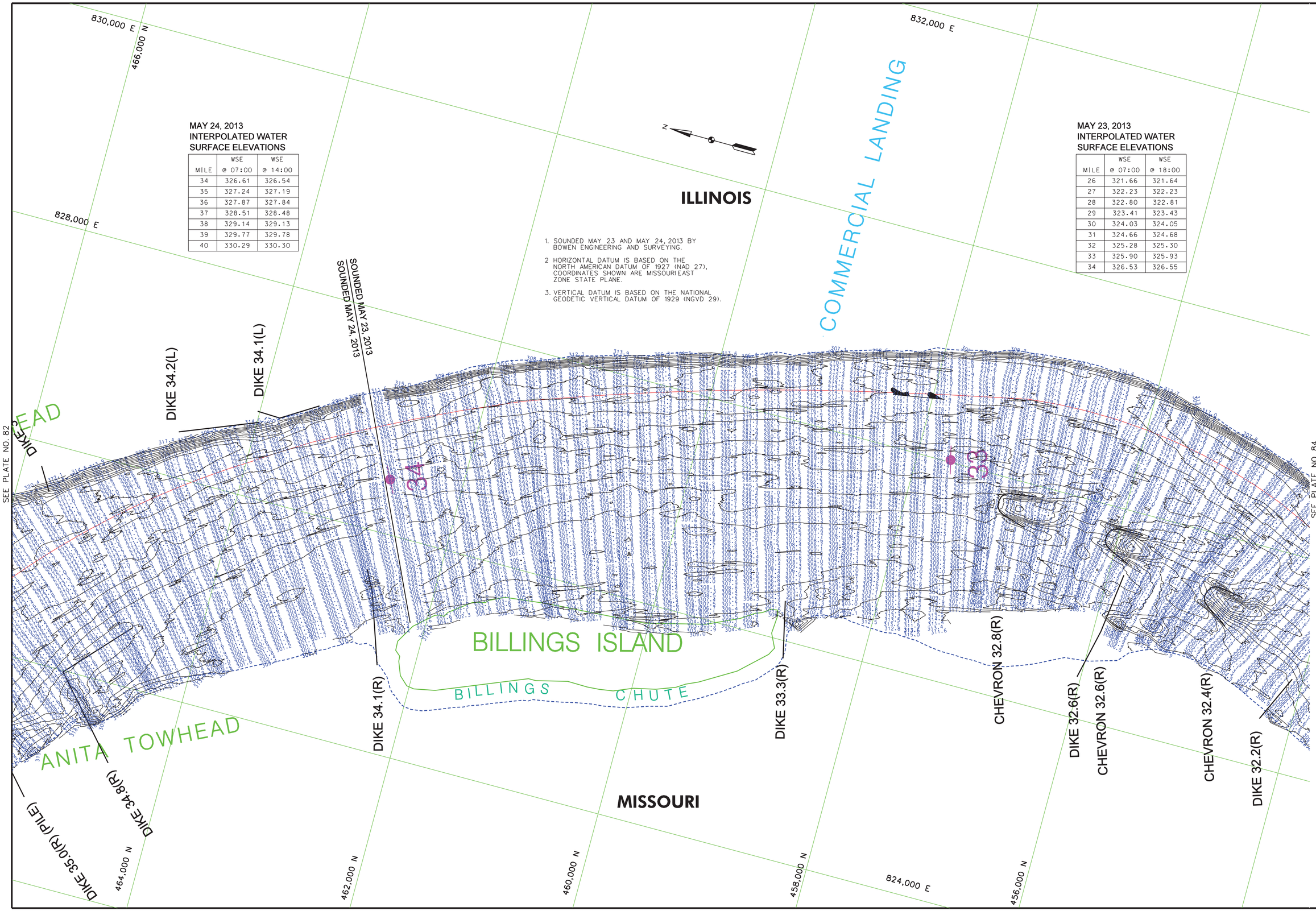
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

120 0 120 240 METERS
400 0 400 800 FEET

THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE AT THE TIME INDICATED AND MAY NOT BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

HYDROGRAPHIC SURVEYS
RIVER MILES 34.5 – 36.5

PLATE NUMBER
82



MAY 24, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 07:00	WSE @ 14:00
34	326.61	326.54
35	327.24	327.19
36	327.87	327.84
37	328.51	328.48
38	329.14	329.13
39	329.77	329.78
40	330.29	330.30

1. SOUNDED MAY 23 AND MAY 24, 2013 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).

MAY 23, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 07:00	WSE @ 18:00
26	321.66	321.64
27	322.23	322.23
28	322.80	322.81
29	323.41	323.43
30	324.03	324.05
31	324.66	324.68
32	325.28	325.30
33	325.90	325.93
34	326.53	326.55

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	THOMPSON LANDING	PRICE'S LANDING	COMMERCE, MO	THEBES, IL
ZERO N.G.V.D.	280.00	299.75	301.83	300.00
MILE	20.2	28.2	39.5	43.7
L. W. R. P.	289.0	293.1	302.1	304.8
23 MAY 2013	GAGE NOT WORKING	23.18(7:00) 23.18(18:00)	28.13(7:00) 28.16(18:00)	X
24 MAY 2013	GAGE NOT WORKING	23.18(7:00) 23.04(14:00)	28.26(7:00) 28.27(14:00)	31.81(7:00) 31.79(14:00)

ELEVATIONS ARE REFERED 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: May 23 and 24, 2013
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ##MONTH-YR##
File name: ##RESEARCH\LESPTCFICATION##

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

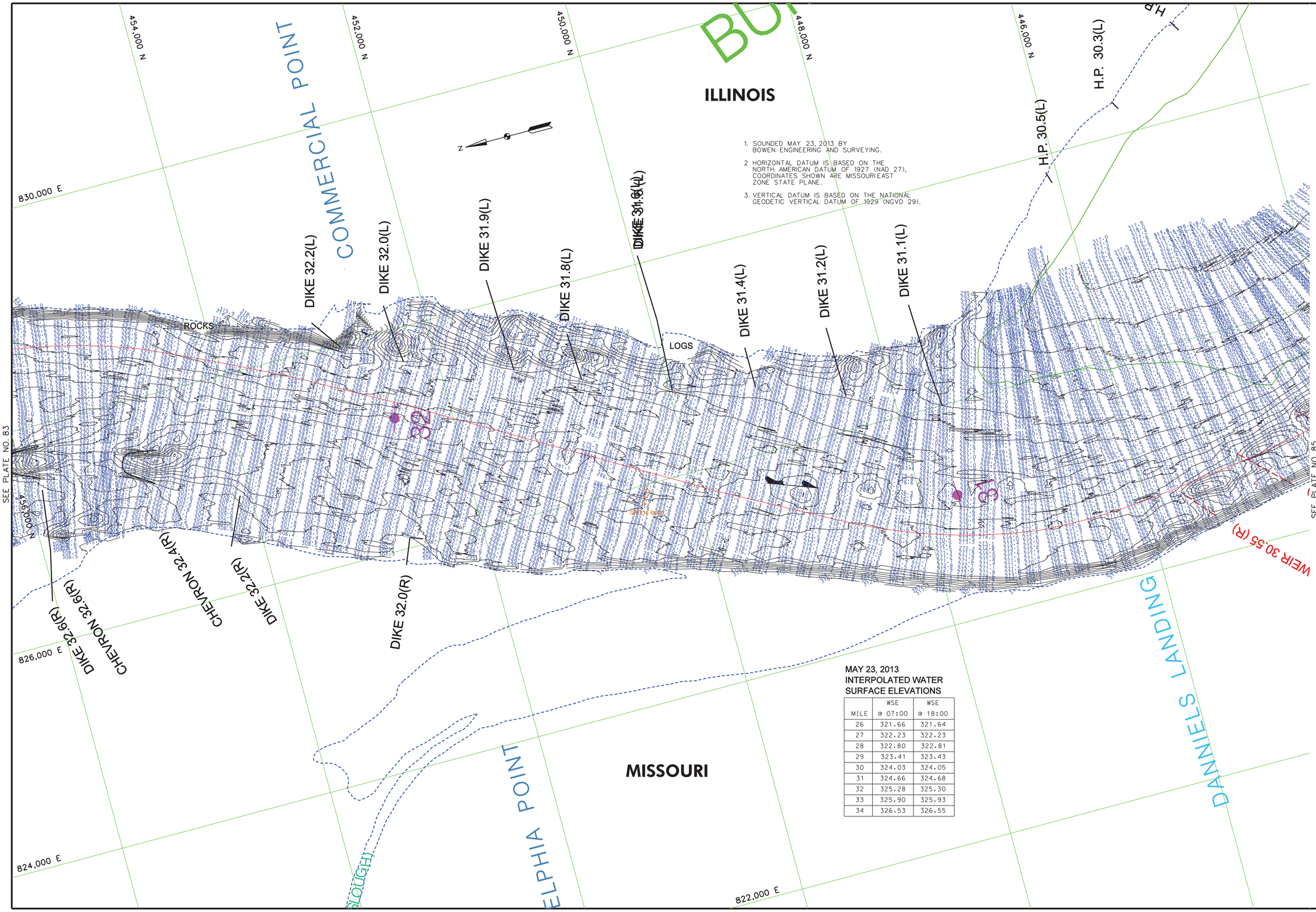
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

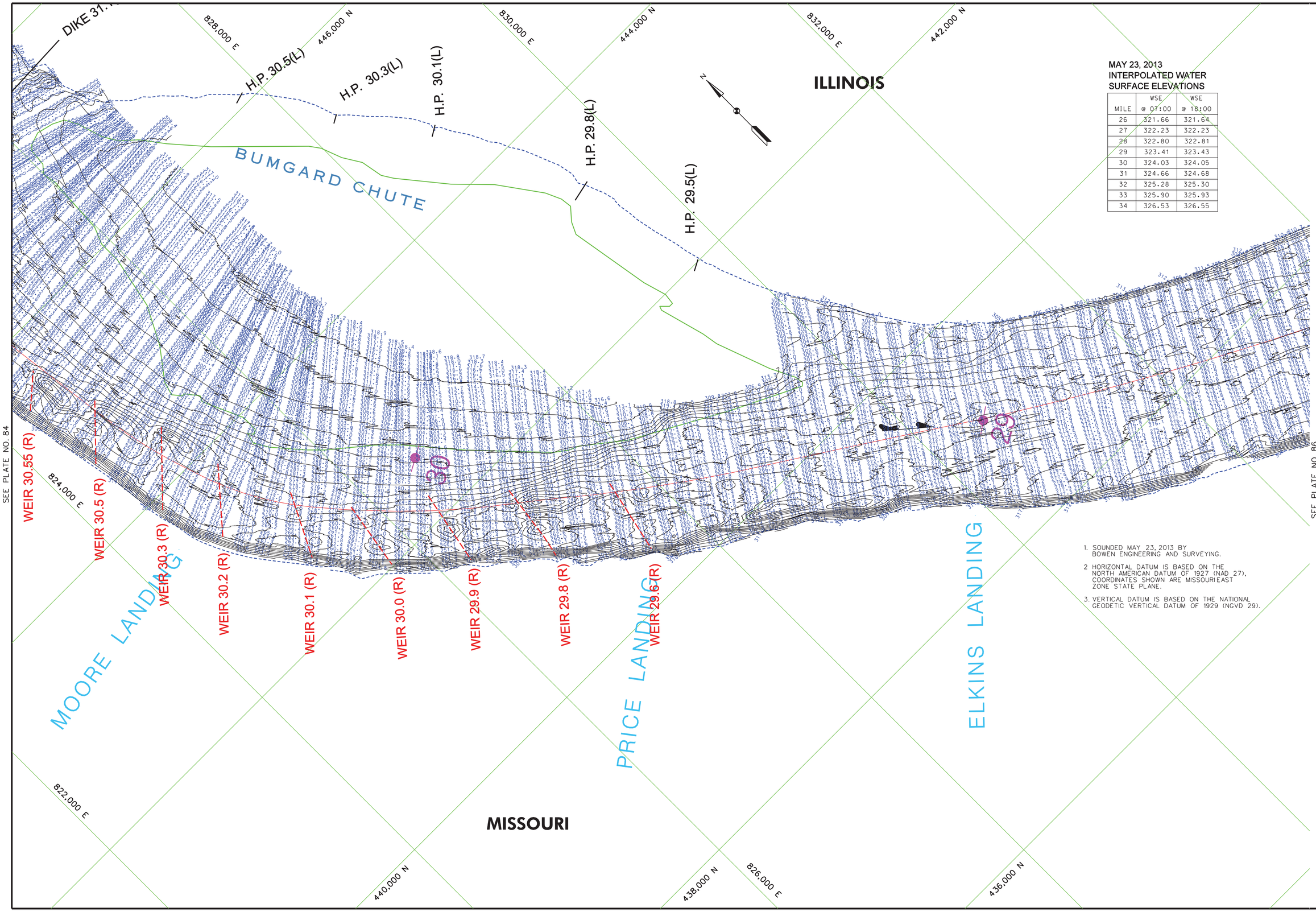
HYDROGRAPHIC SURVEYS
RIVER MILES 32.5 – 34.5

120 0 240 METERS
400 0 800 FEET

THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND MAY NOT BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

PLATE NUMBER
83


ILLINOIS
MISSOURI
COMMERCIAL POINT
ELPHIA POINT
DANNIELS LANDING
SLOUGH
454,000 N
452,000 N
450,000 N
448,000 N
446,000 N
456,000 N
830,000 E
826,000 E
824,000 E
822,000 E
SEE PLATE NO. 83
SEE PLATE NO. 85
DIKE 32.2(L)
DIKE 32.0(L)
DIKE 31.9(L)
DIKE 31.8(L)
DIKE 31.6(L)
DIKE 31.4(L)
DIKE 31.2(L)
DIKE 31.1(L)
H.P. 30.5(L)
H.P. 30.3(L)
H.P.
ROCKS
LOGS
WEIR 30.55 (R)
DIKE 32.6(R)
CHEVRON 32.6(R)
CHEVRON 32.4(R)
DIKE 32.2(R)
DIKE 32.0(R)
82
83
84
85
N
1. SOUNDED MAY 23, 2013 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).
MAY 23, 2013
INTERPOLATED WATER SURFACE ELEVATIONS
MILE | WSE @ 07:00 | WSE @ 18:00
26 | 321.66 | 321.64
27 | 322.23 | 322.23
28 | 322.80 | 322.81
29 | 323.41 | 323.43
30 | 324.03 | 324.05
31 | 324.66 | 324.68
32 | 325.28 | 325.30
33 | 325.90 | 325.93
34 | 326.53 | 326.55
US Army Corps of Engineers St. Louis District
GAGE RECORD
ZERO N.G.V.D. | THOMPSON LANDING 280.00 | PRICE'S LANDING 299.75 | COMMERCE, MO 301.83 | THEBES, IL 300.00
MILE | 20.2 | 28.2 | 39.5 | 43.7
L. W. R. P. | 289.0 | 293.1 | 302.1 | 304.8
23 MAY 2013 | GAGE NOT WORKING | 23.1617:00/23.1818:00 | 28.1317:00/28.1618:00 | X
ELEVATIONS ARE REFERED TO N.G.V.D. - CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE (L.W.R.P.) 154,000 C.F.S.
U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER
Surveyed by: BOWEN ENGINEERING
Survey Date: May 23, 2013
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ##/##/##TE:TIME####
File name: ##DESIGN\FILE\SPECIFICATION\##
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 SHOWN. THE DATA IS PRESENTED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME
HYDROGRAPHIC SURVEYS
RIVER MILES 30.5 – 32.5
PLATE NUMBER
84



MAY 23, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 07:00	WSE @ 18:00
26	321.66	321.64
27	322.23	322.23
28	322.80	322.81
29	323.41	323.43
30	324.03	324.05
31	324.66	324.68
32	325.28	325.30
33	325.90	325.93
34	326.53	326.55

1. SOUNDED MAY 23, 2013 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).

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	THOMPSON LANDING	PRICE'S LANDING	COMMERCE, MO	THEBES, IL
ZERO N.G.V.D.	280.00	299.75	301.83	300.00
MILE	20.2	28.2	39.5	43.7
L. W. R. P.	289.0	293.1	302.1	304.8
23 MAY 2013	GAGE NOT WORKING	23.16(7:00) 23.18(18:00)	28.13(7:00) 28.16(18:00)	X

ELEVATIONS ARE REFERED TO N.G.V.D. - CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE (L.W.R.P.) 154.000 C.F.S.

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

Surveyed by: BOWEN ENGINEERING
Survey Date: May 23, 2013
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ####DATE-TIME####
File name: ####DESIGNFILEBRIEFDESCRIPTION####

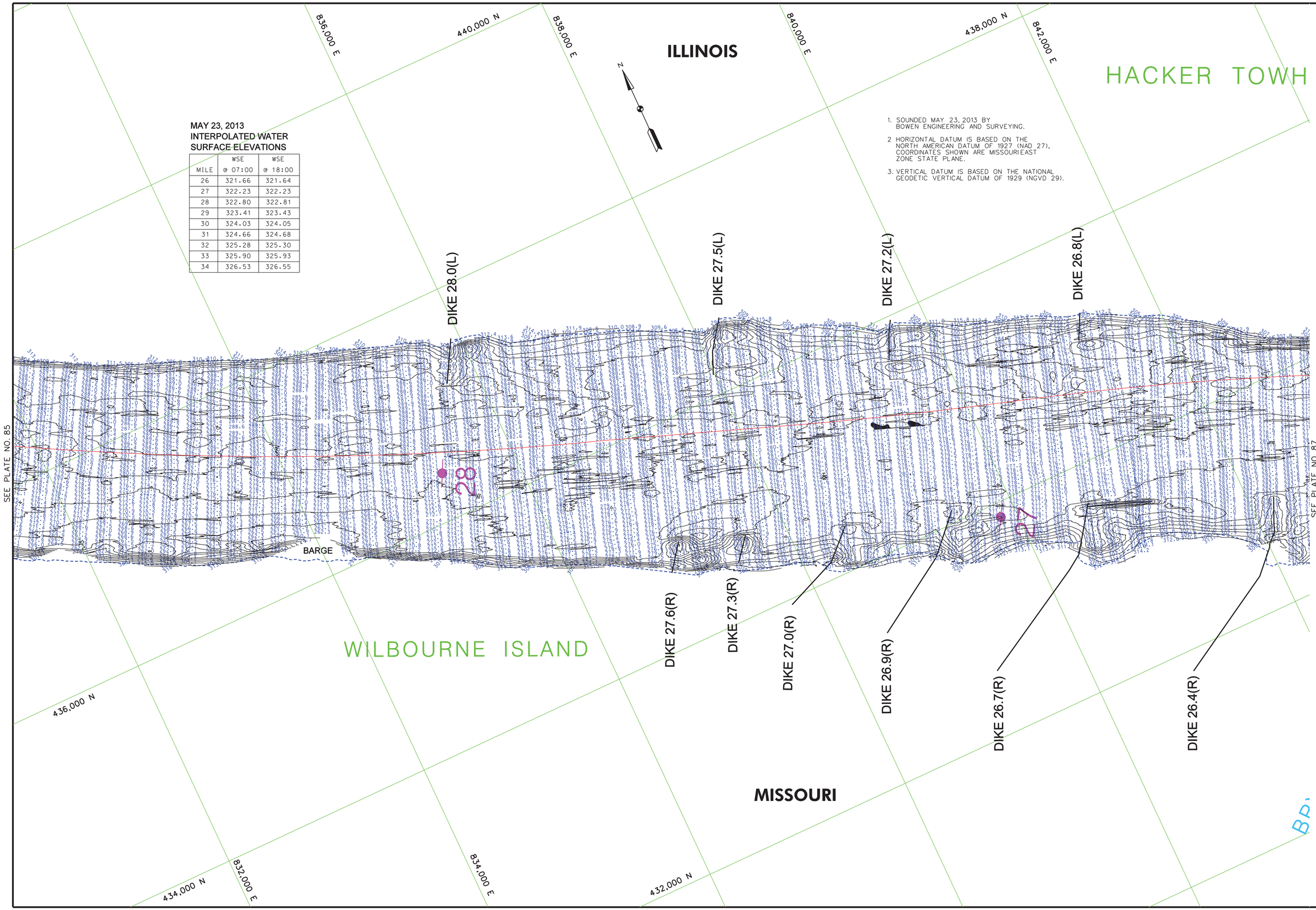
120 0 120 240 METERS
400 0 400 800 FEET

THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE INDICATED AND IS CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

HYDROGRAPHIC SURVEYS

RIVER MILES 28.6 – 30.5

PLATE NUMBER
85



MAY 23, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 07:00	WSE @ 18:00
26	321.66	321.64
27	322.23	322.23
28	322.80	322.81
29	323.41	323.43
30	324.03	324.05
31	324.66	324.68
32	325.28	325.30
33	325.90	325.93
34	326.53	326.55

1. SOUNDED MAY 23, 2013 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).

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	BIRD'S POINT	THOMPSON LANDING	PRICE'S LANDING	COMMERCE, MO
ZERO N.G.V.D.	274.53	280.00	299.75	301.83
MILE	2.0	20.2	28.2	39.5
L. W. R. P.	277.9	289.0	293.1	302.1
23 MAY 2013	33.48(7:00) 33.01(18:00)	GAGE NOT WORKING	23.16(7:00) 23.18(18:00)	28.13(7:00) 28.16(18:00)

ELEVATIONS ARE REFERENCED TO N.G.V.D. - CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE (L.W.R.P.) 54.000 C.F.S.

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

Surveyed by: BOWEN ENGINEERING
Survey Date: May 23, 2013
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ####DATE/TIME####
File name: ####DESIGNFILEREFERENCE/LOCATION####

PLATE NO. 87

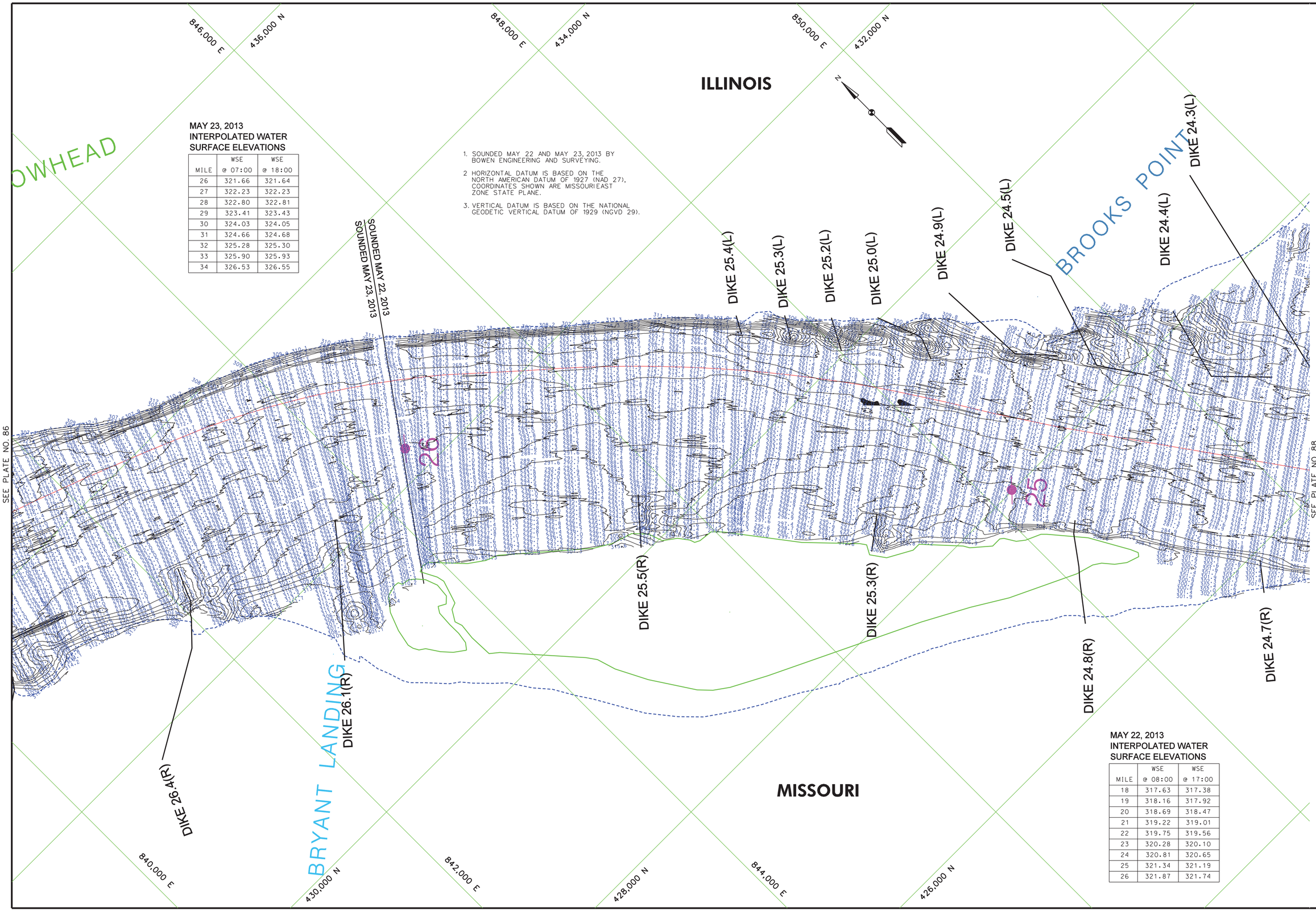
120 0 120 240 METERS
400 0 400 800 FEET

THE INFORMATION DEPICTED 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

HYDROGRAPHIC SURVEYS

RIVER MILES 26.6 – 28.6

PLATE NUMBER
86



MAY 23, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 07:00	WSE @ 18:00
26	321.66	321.64
27	322.23	322.23
28	322.80	322.81
29	323.41	323.43
30	324.03	324.05
31	324.66	324.68
32	325.28	325.30
33	325.90	325.93
34	326.53	326.55

1. SOUNDED MAY 22 AND MAY 23, 2013 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).

MAY 22, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 08:00	WSE @ 17:00
18	317.63	317.38
19	318.16	317.92
20	318.69	318.47
21	319.22	319.01
22	319.75	319.56
23	320.28	320.10
24	320.81	320.65
25	321.34	321.19
26	321.87	321.74

US Army Corps of Engineers
St. Louis District

GAGE RECORD

ZERO N.G.V.D.	BIRD'S POINT 274.53	THOMPSON LANDING 280.00	PRICE'S LANDING 299.75	COMMERCE, MO 301.83
MILE	2.0	20.2	28.2	39.5
L. W. R. P.	277.9	289.0	293.1	302.1
22 MAY 2013	34.64(8:00) 34.92(17:00)	GAGE NOT WORKING	23.28(8:00) 23.96(17:00)	X
23 MAY 2013	33.48(7:00) 33.01(18:00)	GAGE NOT WORKING	23.16(7:00) 23.18(18:00)	28.13(7:00) 28.16(18:00)

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

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

Surveyed by: BOWEN ENGINEERING
Survey Date: May 22 and 23, 2013
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ####DATE/TIME####
File name: ####DESIGNFILE\PRECIFICATION####

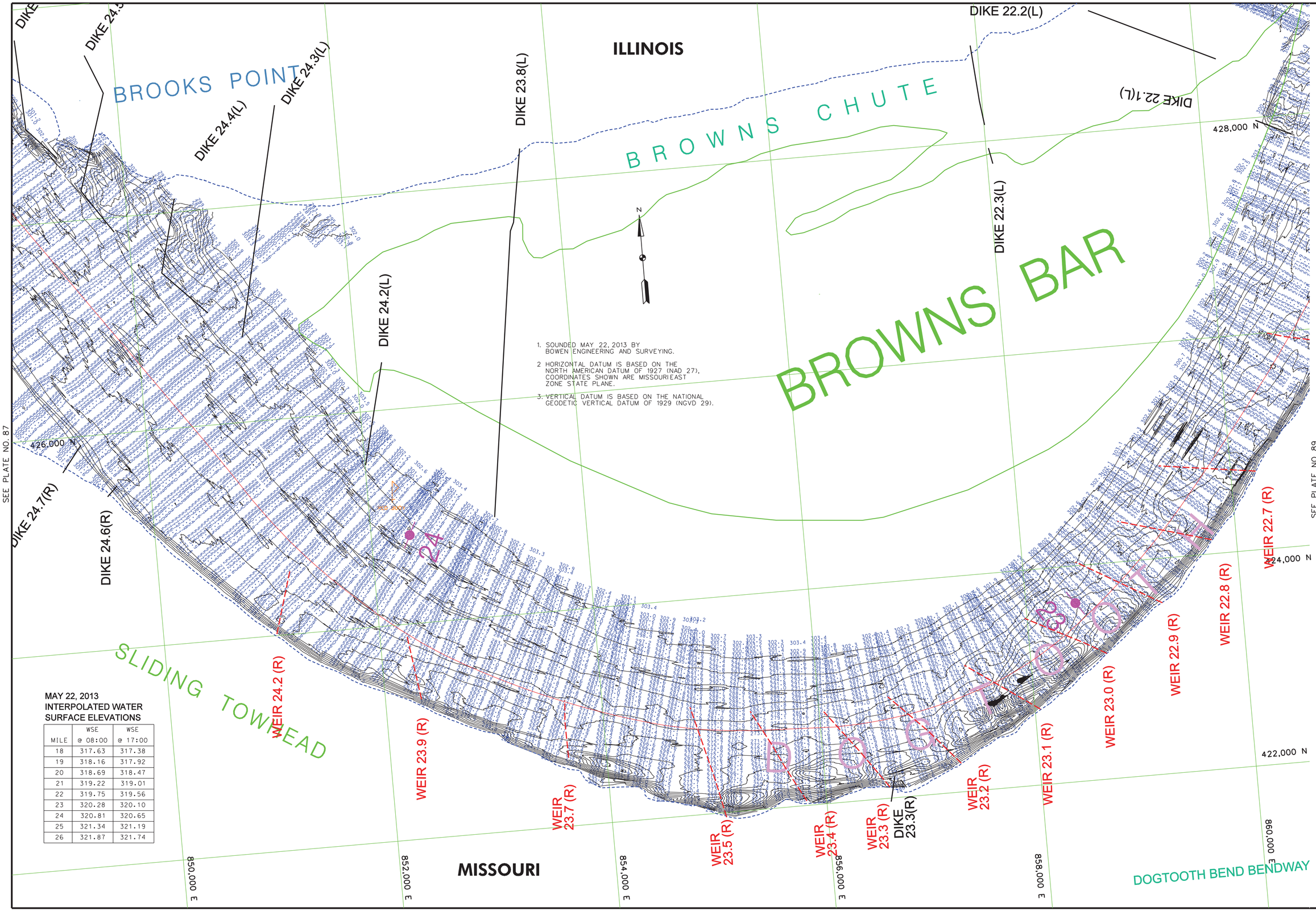
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

240 METERS
800 FEET
120 0 120 400
0 400

THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF THE HYDROGRAPHIC SURVEYS PERFORMED BY THE CONTRACTOR AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

HYDROGRAPHIC SURVEYS
RIVER MILES 24.6 - 26.6

PLATE NUMBER
87



1. SOUNDED MAY 22, 2013 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).

MAY 22, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 08:00	WSE @ 17:00
18	317.63	317.38
19	318.16	317.92
20	318.69	318.47
21	319.22	319.01
22	319.75	319.56
23	320.28	320.10
24	320.81	320.65
25	321.34	321.19
26	321.87	321.74

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	BIRD'S POINT	THOMPSON LANDING	PRICE'S LANDING	COMMERCE, MO
ZERO N.G.V.D.	274.53	280.00	299.75	301.83
MILE	2.0	20.2	28.2	39.5
L. W. R. P.	277.9	289.0	293.1	302.1
22 MAY 2013	34.64(8:00) 34.92(17:00)	GAGE NOT WORKING	23.28(8:00) 23.96(17:00)	X

ELEVATIONS ARE REFERED 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: May, 22, 2013
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ####DATE/TIME####
File name: ####DESIGNFILE\DESIGNFILE\DESIGNFILE####

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

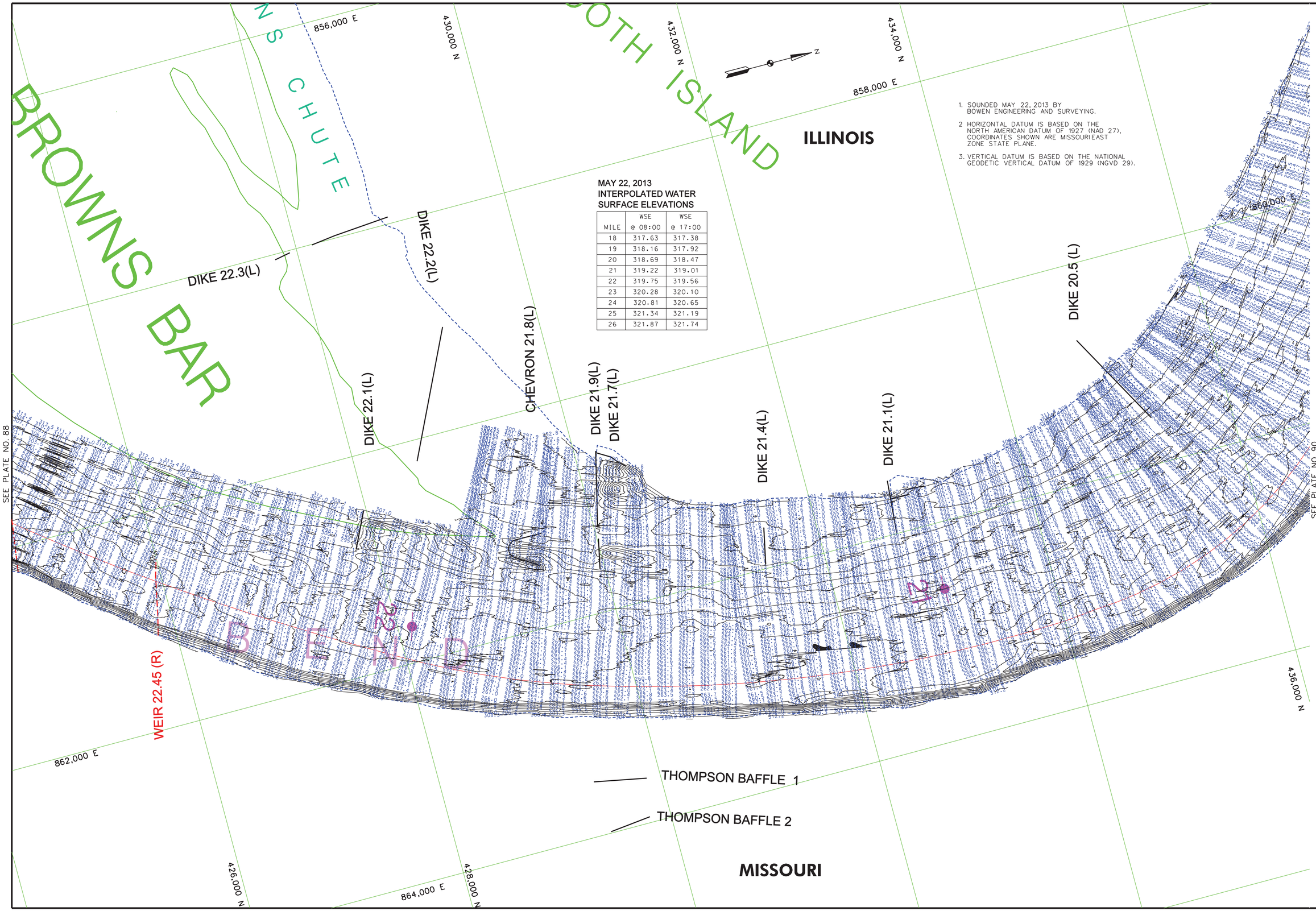
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER
RIVER MILES 22.5 – 24.6

120 0 240 METERS
400 0 800 FEET

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED. THE INFORMATION IS PRESENTED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

HYDROGRAPHIC SURVEYS
RIVER MILES 22.5 – 24.6

PLATE NUMBER
88



MAY 22, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 08:00	WSE @ 17:00
18	317.63	317.38
19	318.16	317.92
20	318.69	318.47
21	319.22	319.01
22	319.75	319.56
23	320.28	320.10
24	320.81	320.65
25	321.34	321.19
26	321.87	321.74

1. SOUNDED MAY 22, 2013 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).

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	BIRD'S POINT	THOMPSON LANDING	PRICE'S LANDING	COMMERCE, MO
ZERO N.G.V.D.	274.53	280.00	299.75	301.83
MILE	2.0	20.2	28.2	39.5
L. W. R. P.	277.9	289.0	293.1	302.1
22 MAY 2013	34.64(8:00) 34.12(17:00)	GAGE NOT WORKING	23.28(8:00) 23.19(17:00)	X

ELEVATIONS ARE REFERENCED 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: May 22, 2013
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ####DATE/TIME####
File name: ####DESIGNFILE\BSPICFICATION####

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

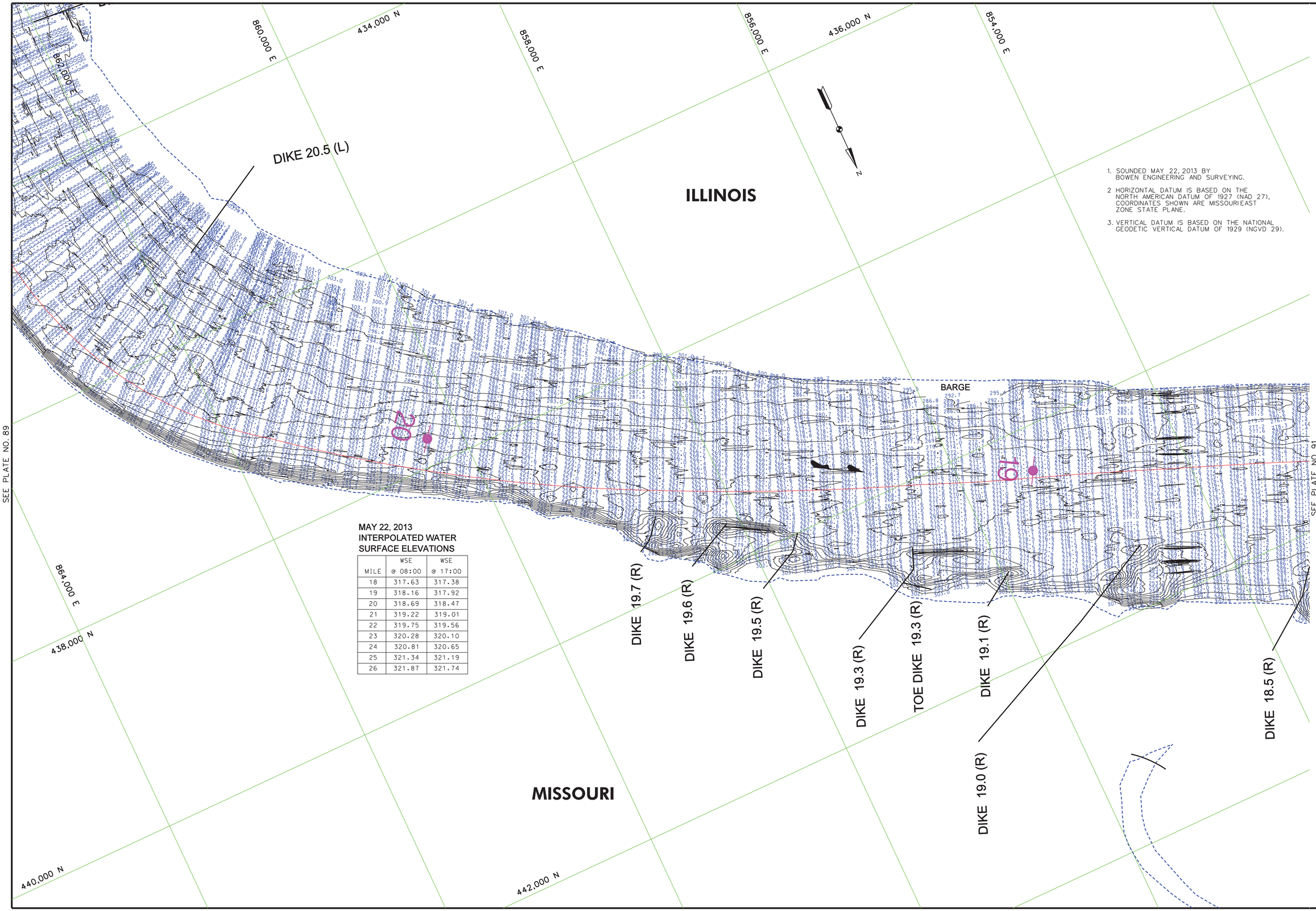
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

HYDROGRAPHIC SURVEYS
RIVER MILES 20.5 – 22.5

120 400 0 0 120 240 METERS
400 800 FEET

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES SHOWN. THE CONTOURS ARE AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

PLATE NUMBER
89



MAY 22, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 08:00	WSE @ 17:00
18	317.63	317.38
19	318.16	317.92
20	318.69	318.47
21	319.22	319.01
22	319.75	319.56
23	320.28	320.10
24	320.81	320.65
25	321.34	321.19
26	321.87	321.74

1. SOUNDED MAY 22, 2013 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).

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	BIRD'S POINT	THOMPSON LANDING	PRICE'S LANDING	COMMERCE, MO
ZERO N.G.V.D.	274.53	280.00	299.75	301.83
MILE	2.0	20.2	28.2	39.5
L. W. R. P.	277.9	289.0	293.1	302.1
22 MAY 2013	34.64(8:00) 34.92(17:00)	GAGE NOT WORKING	23.28(8:00) 23.96(17:00)	X

ELEVATIONS ARE REFERED 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: May 22, 2013
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ##########DATE/TIME##########
File name: ##########DESIGNFILEBRIEFDESCRIPTION##########

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

120 400 0 0 240 METERS 800 FEET

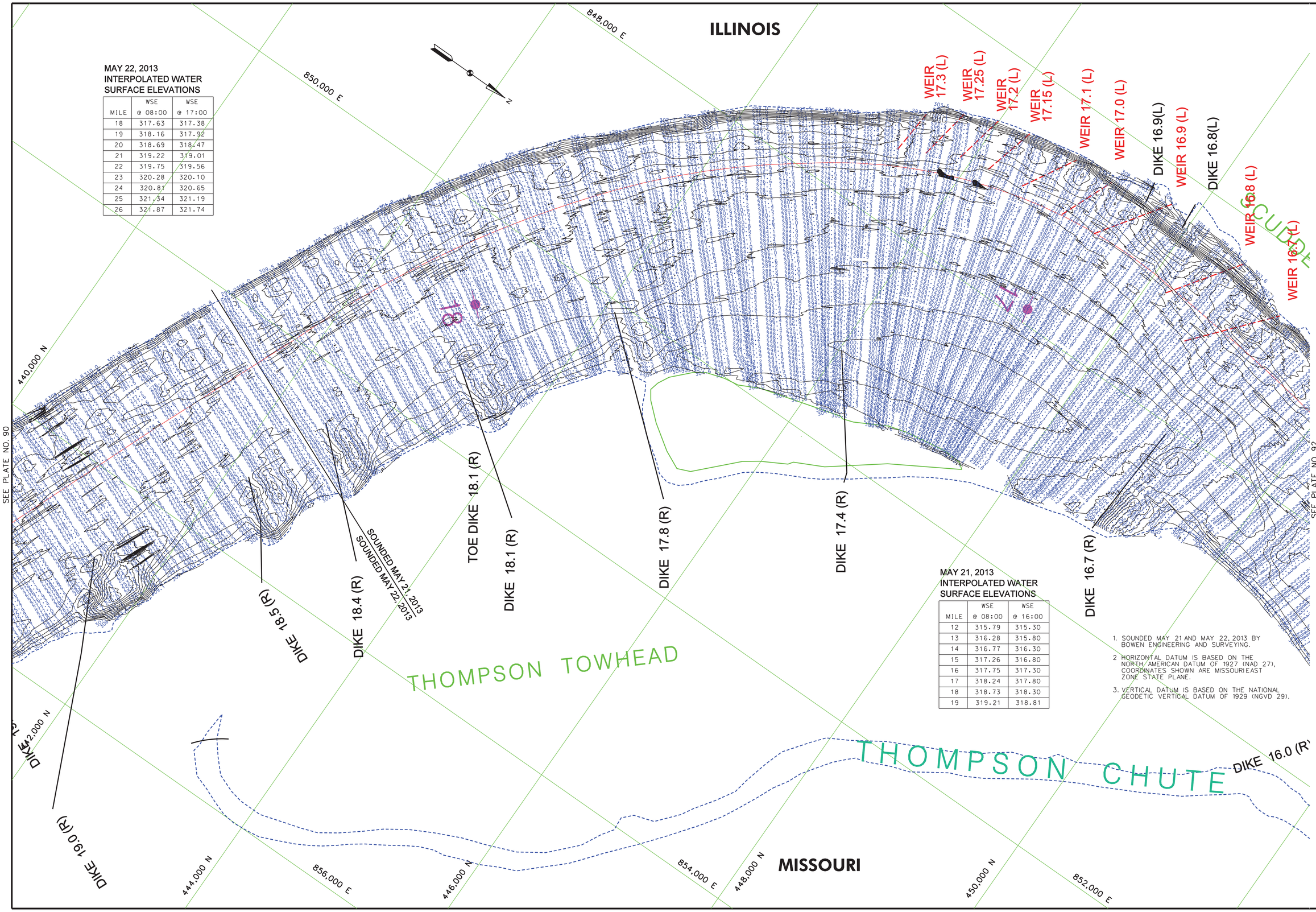
THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE BY THE ST. LOUIS DISTRICT, CORPS OF ENGINEERS AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

HYDROGRAPHIC SURVEYS

RIVER MILES 18.7 – 20.5

PLATE NUMBER

90



MAY 22, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 08:00	WSE @ 17:00
18	317.63	317.38
19	318.16	317.92
20	318.69	318.47
21	319.22	319.01
22	319.75	319.56
23	320.28	320.10
24	320.81	320.65
25	321.34	321.19
26	321.87	321.74

MAY 21, 2013
INTERPOLATED WATER
SURFACE ELEVATIONS

MILE	WSE @ 08:00	WSE @ 16:00
12	315.79	315.30
13	316.28	315.80
14	316.77	316.30
15	317.26	316.80
16	317.75	317.30
17	318.24	317.80
18	318.73	318.30
19	319.21	318.81

1. SOUNDED MAY 21 AND MAY 22, 2013 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).

US Army Corps of Engineers
St. Louis District

GAGE RECORD			
	BIRD'S POINT	THOMPSON LANDING	PRICE'S LANDING	COMMERCE, MO
ZERO N.G.V.D.	274.53	280.00	299.75	301.83
MILE	2.0	20.2	28.2	39.5
L. W. R. P.	277.9	289.0	293.1	302.1
21 MAY 2013	36.36(8-00) 35.75(16-00)	GAGE NOT WORKING	23.97(8-00) 23.67(16-00)	X
22 MAY 2013	34.84(8-00) 34.30(17-00)	GAGE NOT WORKING	23.28(8-00) 23.19(17-00)	X

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: May 21 and 22, 2013
Drawn by: X
Ckd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: ####DATE-TIME####
File name: ####DESIGNFILEBRTPCFICATION####

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

240 METERS 120 0 120 240
800 FEET 400 0 400 800

THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND IS PRESENTED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

HYDROGRAPHIC SURVEYS

RIVER MILES 16.4 – 18.7

PLATE NUMBER
91