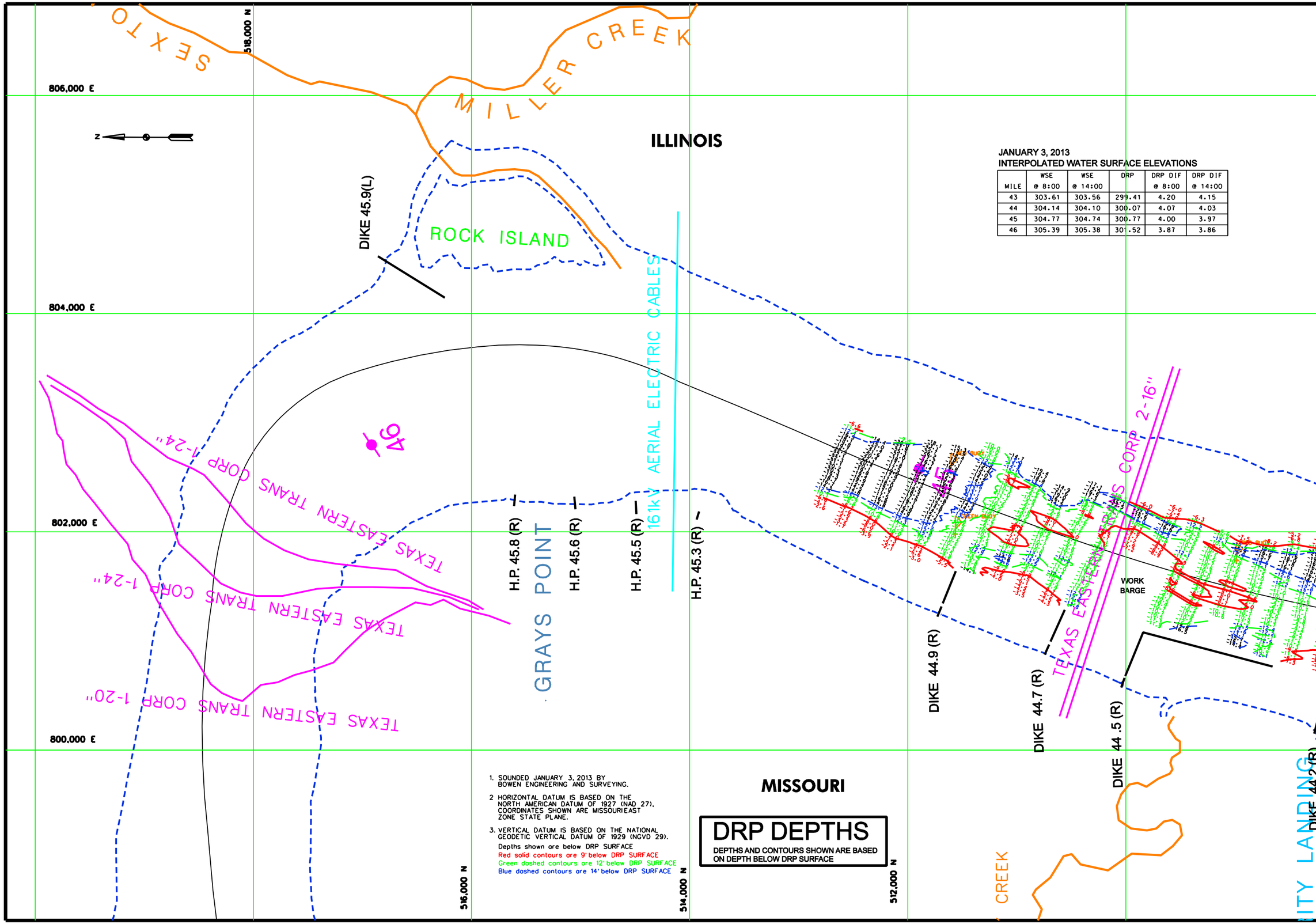


JANUARY 3, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 8:00	WSE @ 14:00	DRP	DRP DIF @ 8:00	DRP DIF @ 14:00
43	303.61	303.56	299.41	4.20	4.15
44	304.14	304.10	300.07	4.07	4.03
45	304.77	304.74	300.77	4.00	3.97
46	305.39	305.38	301.52	3.87	3.86

1. SOUNDED JANUARY 3, 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).

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

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	PRICE'S LANDING	COMMERCE, MO	THEBES, IL	GRAYS POINT, MO
ZERO N.G.V.D.	299.75	301.83	300.00	301.18
MILE	28.2	39.5	43.7	46.3
L. W. R. P.	293.1	302.1	304.8	306.3
03 JAN 2013	x	0.078:001 -0.014:001	3.958:001 3.914:001	4.408:001 4.394:001

ELEVATIONS ARE REFERED TO N.G.V.D. - CONTOURS ARE BELOW 1954-55 LOW WATER REFERENCE PLANE (L.W.R.P.) (54,000 C.F.S.)

Surveyed by: BOWEN ENGINEERING
Survey Date: JANUARY 3, 2013
Drawn by: x
Ckd by: x
Reviewed by: x
SUBMITTED: x
APPROVED: x
Plot date: ##/##/##-TIME##
File name: ##/##/##/##FILENAME##

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

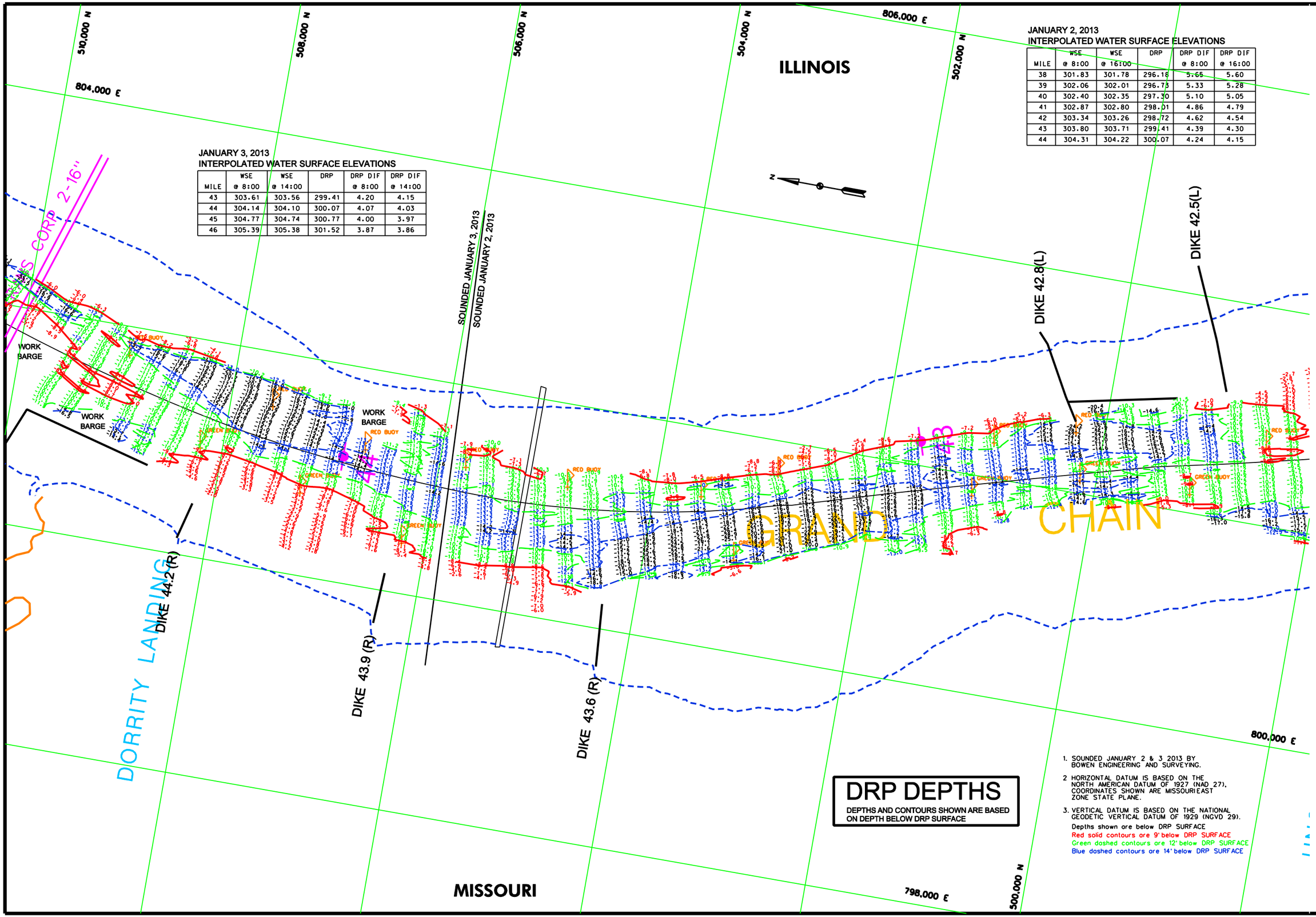
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

120 400 0 0 120 240 METERS
400 800 FEET

THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE SHOWN AND IS INTENDED TO REPRESENT AS NEARLY AS POSSIBLE THE GENERAL CONDITIONS EXISTING AT THAT TIME

PRE DREDGE SURVEY
RIVER MILES 45.1 – 88.0

PLATE NUMBER
XX
SHEET 1 OF 5



JANUARY 3, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 8:00	WSE @ 14:00	DRP	DRP DIF @ 8:00	DRP DIF @ 14:00
43	303.61	303.56	299.41	4.20	4.15
44	304.14	304.10	300.07	4.07	4.03
45	304.77	304.74	300.77	4.00	3.97
46	305.39	305.38	301.52	3.87	3.86

JANUARY 2, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 8:00	WSE @ 16:00	DRP	DRP DIF @ 8:00	DRP DIF @ 16:00
38	301.83	301.78	296.18	5.65	5.60
39	302.06	302.01	296.73	5.33	5.28
40	302.40	302.35	297.30	5.10	5.05
41	302.87	302.80	298.01	4.86	4.79
42	303.34	303.26	298.72	4.62	4.54
43	303.80	303.71	299.41	4.39	4.30
44	304.31	304.22	300.07	4.24	4.15

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

1. SOUNDED JANUARY 2 & 3 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).

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

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	PRICE'S LANDING	COMMERCE, MO	THEBES, IL	GRAYS POINT, MO
ZERO N.G.V.D.	299.75	301.83	300.00	301.18
MILE	28.2	39.5	43.7	46.3
L. W. R. P.	293.1	302.1	304.8	306.3
02 JAN 2013	0.13ft-001 -0.20ft-001	0.34ft-001 0.29ft-001	4.13ft-001 4.03ft-001	4.55ft-001 4.48ft-001
03 JAN 2013	x	0.07ft-001 -0.01ft-001	3.95ft-001 3.91ft-001	4.40ft-001 4.39ft-001

ELEVATIONS ARE REFERED TO N.G.V.D. - CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE. ELWRP.1(14.000 C.F.S.)

Surveyed by: BOWEN ENGINEERING
Survey Date: JANUARY 2 & 3 2013
Drawn by: x
Ckd by: x
Reviewed by: x
SUBMITTED: x
APPROVED: x
Plot date: ##MONTH/YR##
File name: ##DESIGNFILEDESCRIPTION##

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

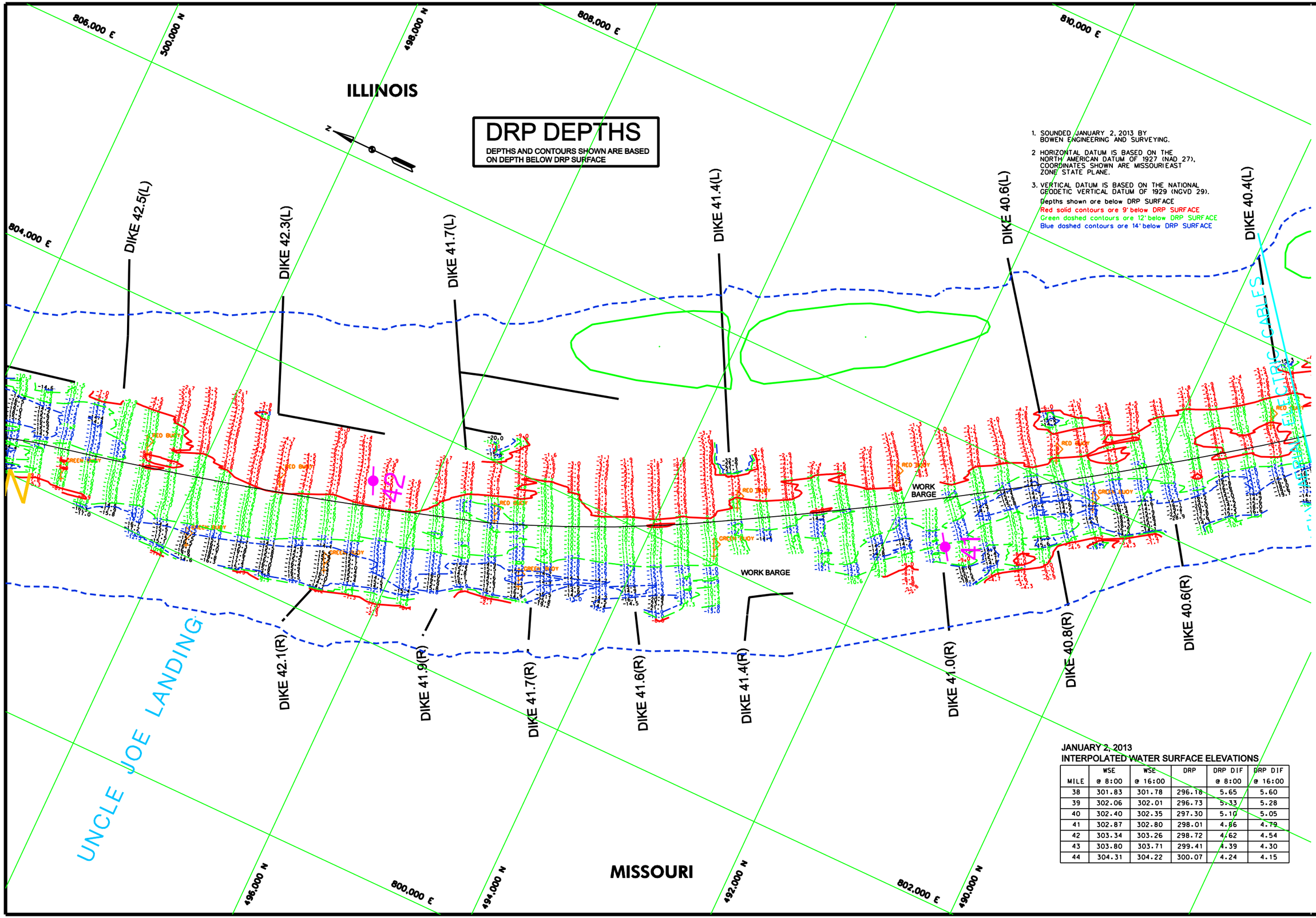
120 0 120 240 METERS
400 0 400 800 FEET

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

PRE DREDGE SURVEY

RIVER MILES 45.1 – 38.0

PLATE NUMBER
XX
SHEET 2 OF 5



JANUARY 2, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 8:00	WSE @ 16:00	DRP	DRP DIF @ 8:00	DRP DIF @ 16:00
38	301.83	301.78	296.18	5.65	5.60
39	302.06	302.01	296.73	5.33	5.28
40	302.40	302.35	297.30	5.10	5.05
41	302.87	302.80	298.01	4.86	4.79
42	303.34	303.26	298.72	4.62	4.54
43	303.80	303.71	299.41	4.39	4.30
44	304.31	304.22	300.07	4.24	4.15

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	PRICE'S LANDING	COMMERCE, MO	THEBES, IL	GRAYS POINT, MO
ZERO N.G.V.D.	299.75	301.83	300.00	301.18
MILE	28.2	39.5	43.7	46.3
L. W. R. P.	293.1	302.1	304.8	306.3
02 JAN 2013	-0.318±001 -0.201±001	0.348±001 0.281±001	4.138±001 4.031±001	4.558±001 4.481±001

ELEVATIONS ARE REFERED TO N.G.V.D. - CONTOURS ARE BELOW 1954-55 LOW WATER REFERENCE PLANE (L.W.R.P.) (14.000 C.F.S.)

Surveyed by: BOWEN ENGINEERING
Survey Date: JANUARY 2, 2013
Drawn by: x
Ckd by: x
Reviewed by: x
SUBMITTED: x
APPROVED: x
Plot date: ##/##/##-TIME####
File name: ##MISSISSIPPI.ESRIPROJECT##

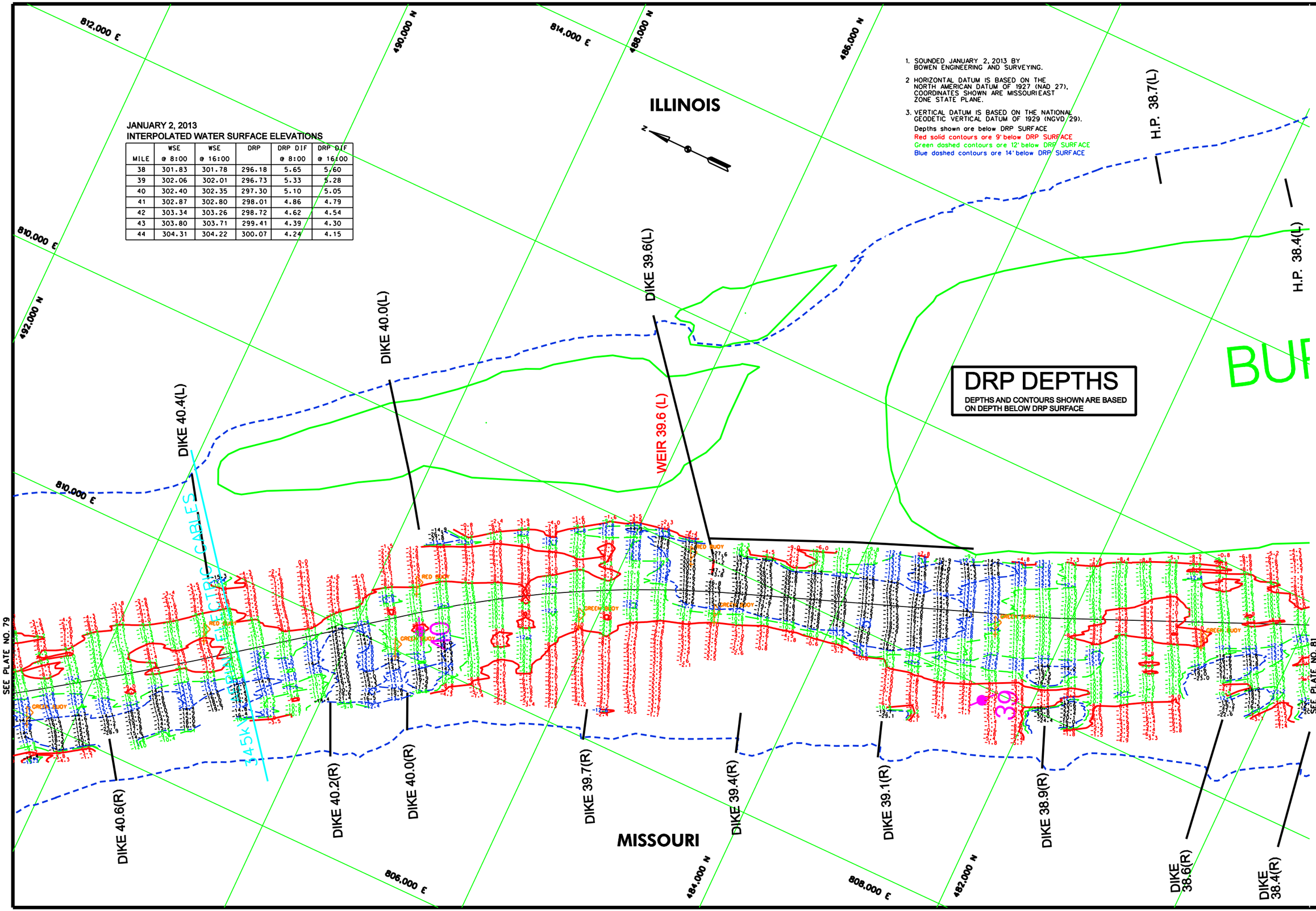
U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

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 FEBRUARY 2013 DREDGE SURVEY. THE DREDGE WAS OPERATED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

PRE DREDGE SURVEY
RIVER MILES 45.1 – 38.0

PLATE NUMBER
XX
SHEET 3 OF 5



JANUARY 2, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 8:00	WSE @ 16:00	DRP	DRP DIF @ 8:00	DRP DIF @ 16:00
38	301.83	301.78	296.18	5.65	5.60
39	302.06	302.01	296.73	5.33	5.28
40	302.40	302.35	297.30	5.10	5.05
41	302.87	302.80	298.01	4.86	4.79
42	303.34	303.26	298.72	4.62	4.54
43	303.80	303.71	299.41	4.39	4.30
44	304.31	304.22	300.07	4.24	4.15

1. SOUNDED JANUARY 2, 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).

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

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	PRICE'S LANDING	COMMERCE, MO	THEBES, IL	GRAYS POINT, MO
ZERO N.G.V.D.	299.75	301.83	300.00	301.18
MILE	28.2	39.5	43.7	46.3
L. W. R. P.	293.1	302.1	304.8	306.3
02 JAN 2013	0.13ft-001 -0.201ft-001	0.341ft-001 0.291ft-001	4.13ft-001 4.031ft-001	4.55ft-001 4.481ft-001

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE. ILLINOIS (SA.000 C.F.S.)

Surveyed by: BOWEN ENGINEERING
Survey Date: JANUARY 2, 2013
Drawn by: X
Chkd by: X
Reviewed by: X
SUBMITTED: X
APPROVED: X
Plot date: 00000DATE/TIME00000
File name: 00DESIGN\PLEBPT\CONTOUR00

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

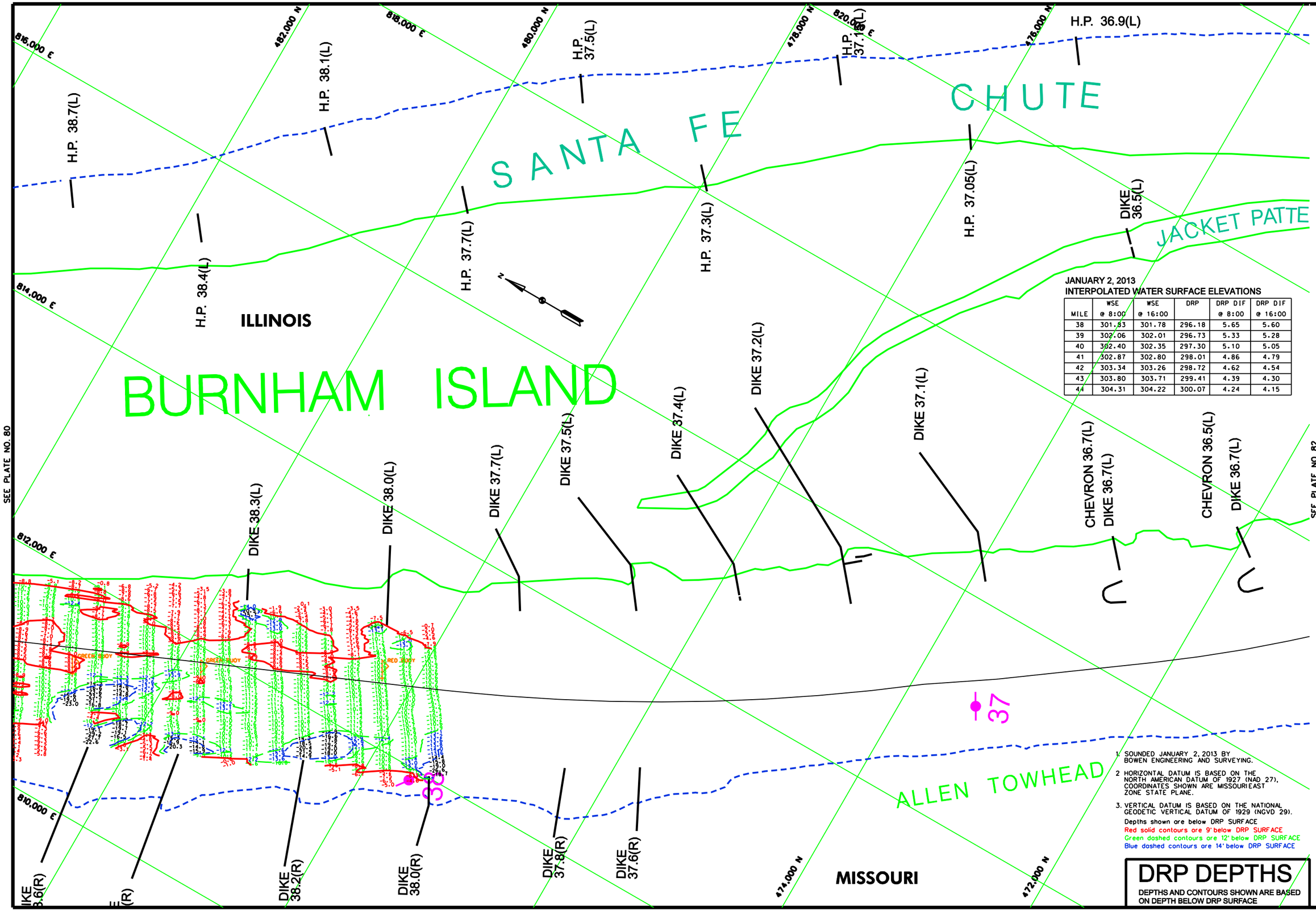
THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE AT THE TIME INDICATED. THE DATA SHOWN HAS BEEN PLOTTED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

120 0 120 240 METERS
400 0 400 800 FEET

PRE DREDGE SURVEY

RIVER MILES 45.1 - 38.0

PLATE NUMBER
XX
SHEET 4 OF 5



JANUARY 2, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 8:00	WSE @ 16:00	DRP	DRP DIF @ 8:00	DRP DIF @ 16:00
38	301.83	301.78	296.18	5.65	5.60
39	302.06	302.01	296.73	5.33	5.28
40	302.40	302.35	297.30	5.10	5.05
41	302.87	302.80	298.01	4.86	4.79
42	303.34	303.26	298.72	4.62	4.54
43	303.80	303.71	299.41	4.39	4.30
44	304.31	304.22	300.07	4.24	4.15

1. SOUNDED JANUARY 2, 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).

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

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	PRICE'S LANDING	COMMERCE, MO	THEBES, IL	GRAYS POINT, MO
ZERO N.G.V.D.	299.75	301.83	300.00	301.18
MILE	28.2	39.5	43.7	46.3
L. W. R. P.	293.1	302.1	304.8	306.3
02 JAN 2013	-0.13E-001	-0.20E-001	0.31E-001	0.29E-001	4.13E-001	4.03E-001	4.55E-001	4.48E-001

ELEVATIONS ARE REFERRED TO N.G.V.D. CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE. ELIMINATION CRITERIA

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

Surveyed by: BOWEN ENGINEERING
Survey Date: JANUARY 2, 2013
Drawn by: x
Ckd by: x
Reviewed by: x
SUBMITTED: x
APPROVED: x
Plot date: ##MONTH/YR##
File name: ##DESIGN/FILE##

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

PRE DREDGE SURVEY
RIVER MILES 45.1 – 38.0

120 0 120 240 METERS
400 0 400 800 FEET
THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE SHOWN. THE DATA IS PRESENTED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

PLATE NUMBER
XX
SHEET 5 OF 5