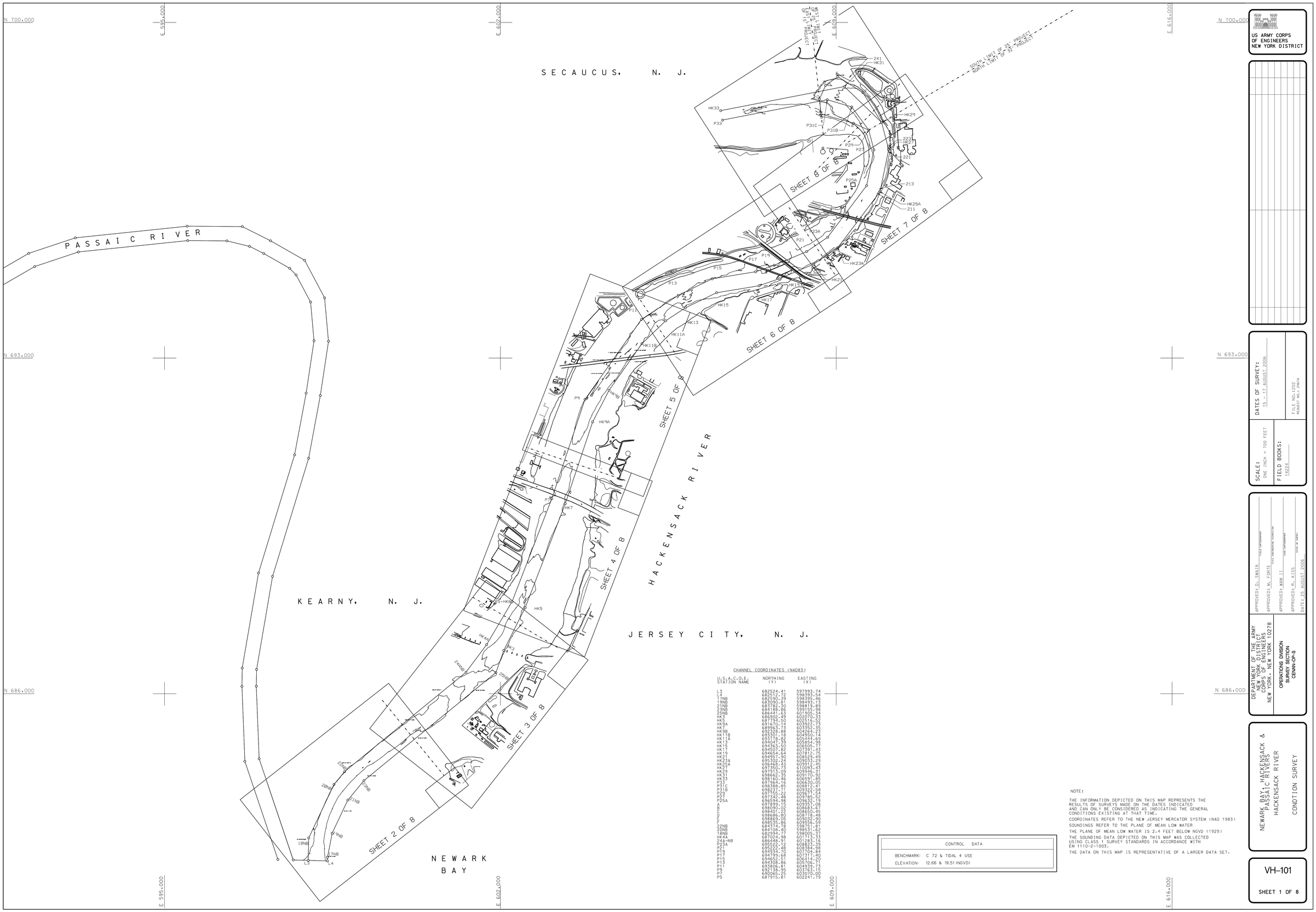
CORPS OF ENGINEERS

U. S. ARMY



CHANNEL COORDINATES (NAD83)

U.S.A.C.O.E. STATION NAME	NORTHING (Y)	EASTING (X)
L3	692524.41	597893.74
L4	692517.72	598593.54
17NB	682690.49	598595.46
19NB	683030.37	598493.76
21NB	683782.30	598815.89
23NB	684188.86	599155.98
25NB	686441.63	601905.34
HK3	686902.49	602070.33
HK5	687794.50	602516.52
HK9A	691670.14	603922.73
HK7	689963.73	603352.35
HK9B	692328.88	604264.23
HK11B	693301.18	604950.14
HK11A	693778.82	605444.69
HK13	694047.39	605854.98
HK15	694363.50	606505.77
HK17	694507.82	607391.43
HK19	694654.64	607812.75
HK21	694957.90	608529.49
HK23A	695302.24	609073.29
HK25A	696468.43	609914.43
HK27	697350.73	610054.54
HK29	697603.09	609746.31
HK31	698612.35	609175.92
HK33	698160.46	606591.85
P33	697964.16	606830.05
P31C	698388.85	608812.41
P31B	698237.71	609322.58
P29	697755.22	609679.54
P27	697342.48	609785.52
P25A	696594.98	609632.19
A	697899.15	609357.08
B	698090.02	608683.67
C	698401.22	608650.45
D	698686.80	608778.48
E	698869.05	609032.90
22NB	698535.86	609556.59
20NB	684374.78	598751.81
18NB	682994.77	598065.31
HK4A	687024.98	601713.33
24A-NB	686448.91	601283.36
P23A	695522.48	608824.76
P21	695522.48	608784.98
P19	694534.70	607704.84
P17	694799.68	607317.40
P15	694652.51	606414.20
P13	694308.86	605706.71
P11	693806.81	604939.73
P9	692138.95	603763.15
P7	690065.25	603070.00
P5	687915.81	602241.79

CONTROL DATA	
BENCHMARK:	C 72 & TIDAL 4 USE
ELEVATION:	12.66 & 19.51 (NGVD)

NOTE:

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.

COORDINATES REFER TO THE NEW JERSEY MERCATOR SYSTEM (NAD 1983)

SOUNDINGS REFER TO THE PLANE OF MEAN LOW WATER

THE PLANE OF MEAN LOW WATER IS 2.4 FEET BELOW NGVD (1929)

THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING CLASS 1 SURVEY STANDARDS IN ACCORDANCE WITH EM 1110-2-1003.

THE DATA ON THIS MAP IS REPRESENTATIVE OF A LARGER DATA SET.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

SCALE: ONE INCH = 700 FEET

DATES OF SURVEY: 15 - 17 AUGUST 2006

FIELD BOOKS: 14224

FILE NO: 1202
REPORT NO: 2967A

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

APPROVED: D. SWAIN — CHIEF CARTOGRAPHER
APPROVED: M. FORTE — CHIEF, ENGINEERING TECHNICIAN
APPROVED: MAM II — CHIEF CARTOGRAPHER
APPROVED: R. KISS — CHIEF OF SURVEY
DATE: 25 AUGUST 2006.

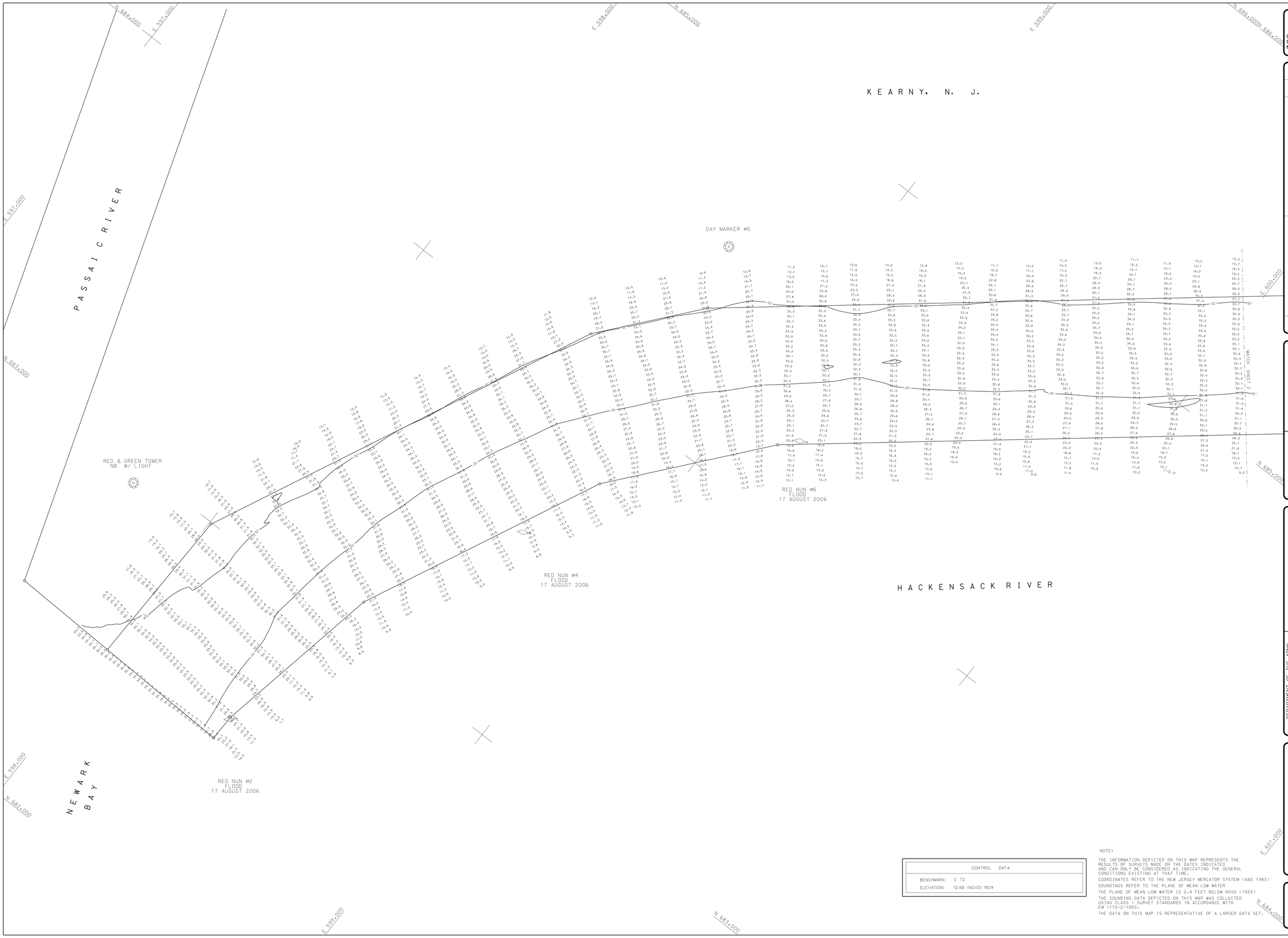
NEWARK BAY, HACKENSACK & PASSAIC RIVERS
HACKENSACK RIVER

CONDITION SURVEY

VH-101

SHEET 1 OF 8

202
2967A



US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

DATES OF SURVEY:
15 - 17 AUGUST 2006

FILE NO.: 202
REQUEST NO.: 2967A

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
142&4

APPROVED: J. SMAIN — FIELD CARTOGRAPHER
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: WEM LI — LEAD CARTOGRAPHER
APPROVED: R. KISS — CHIEF OF SURVEY
DATE: 25 AUGUST 2006

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

NEWARK BAY, HACKENSACK & PASSAIC RIVERS
HACKENSACK RIVER
CONDITION SURVEY

VH-102

SHEET 2 OF 8

CONTROL DATA	
BENCHMARK:	C 72
ELEVATION:	12.66 (NGVD) 1929

NOTE:

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.

COORDINATES REFER TO THE NEW JERSEY MERCATOR SYSTEM (NAD 1983)

SOUNDINGS REFER TO THE PLANE OF MEAN LOW WATER

THE PLANE OF MEAN LOW WATER IS 2.4 FEET BELOW NGVD (1929)

THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING CLASS 1 SURVEY STANDARDS IN ACCORDANCE WITH EM 1110-2-1003.

THE DATA ON THIS MAP IS REPRESENTATIVE OF A LARGER DATA SET.

CORPS OF ENGINEERS

U. S. ARMY

NOTE:

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.

COORDINATES REFER TO THE NEW JERSEY MERCATOR SYSTEM (NAD 1983)

SOUNDINGS REFER TO THE PLANE OF MEAN LOW WATER

THE PLANE OF MEAN LOW WATER IS 2.4 FEET BELOW NGVD (1929)

THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING CLASS 1 SURVEY STANDARDS IN ACCORDANCE WITH EM 1110-2-1003.

THE DATA ON THIS MAP IS REPRESENTATIVE OF A LARGER DATA SET.

CONTROL DATA
BENCHMARK: C 72
ELEVATION: 12.66 (NGVD) 1929

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

DATES OF SURVEY:
15 - 17 AUGUST 2006

FILE NO.: 202
RUN NO.: 2967A

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
14524

APPROVED: D. SWEIN — FIELD SUPERVISOR
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: WAM II — LINE SUPERVISOR
APPROVED: R. KISS — CHIEF OF SURVEY
DATE: 26 AUGUST 2006

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

NEWARK BAY, HACKENSACK & PASSAIC RIVERS
HACKENSACK RIVER
CONDITION SURVEY

VH-103

SHEET 3 OF 8

202
2967A

CORPS OF ENGINEERS

U. S. ARMY

NOTE:

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.

COORDINATES REFER TO THE NEW JERSEY MERCATOR SYSTEM (NAD 1983)

SOUNDINGS REFER TO THE PLANE OF MEAN LOW WATER

THE PLANE OF MEAN LOW WATER IS 2.4 FEET BELOW NGVD (1929)

THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING CLASS 1 SURVEY STANDARDS IN ACCORDANCE WITH EM 1110-2-1003.

THE DATA ON THIS MAP IS REPRESENTATIVE OF A LARGER DATA SET.

CONTROL DATA
BENCHMARK: C 72
ELEVATION: 12.66 (NGVD) 1929

US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

DATES OF SURVEY: 15 - 17 AUGUST 2006

FILE NO.: 202
PROJECT NO.: 29414

SCALE: ONE INCH = 100 FEET

FIELD BOOKS: 14524

APPROVED: D. SWAIN FIELD CARTOGRAPHER
APPROVED: M. FORTE CIVIL ENGINEERING TECHNICIAN
APPROVED: MAM II LEAD CARTOGRAPHER
APPROVED: R. KISS CHIEF OF SURVEY
DATE: 25 AUGUST 2006

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

NEWARK BAY, HACKENSACK & PASSAIC RIVERS
HACKENSACK RIVER

CONDITION SURVEY

VH-104

SHEET 4 OF 8

202
2967A

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

DATES OF SURVEY:
15 - 17 AUGUST 2006

SCALE:
ONE INCH = 100 FEET

FILE NO.: 202
REQUEST NO.: 2967A

FIELD BOOKS:
18224

APPROVED: D. SWAIN — FIELD CARTOGRAPHER
APPROVED: M. FORTE — CHIEF, ENGINEERING TECHNICIAN
APPROVED: MAM II — LEAD CARTOGRAPHER
APPROVED: R. KISS — CHIEF OF SURVEY
DATE: 29 AUGUST 2006

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

NEWARK BAY, HACKENSACK & PASSAIC RIVERS
HACKENSACK RIVER
CONDITION SURVEY

VH-105

SHEET 5 OF 8

CONTROL DATA
BENCHMARK: C 72
ELEVATION: 12.66 (NGVD) 1929

NOTE:

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.

COORDINATES REFER TO THE NEW JERSEY MERCATOR SYSTEM (NAD 1983)

SOUNDINGS REFER TO THE PLANE OF MEAN LOW WATER

THE PLANE OF MEAN LOW WATER IS 2.4 FEET BELOW NGVD (1929)

THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING CLASS 1 SURVEY STANDARDS IN ACCORDANCE WITH EM 1110-2-1003.

THE DATA ON THIS MAP IS REPRESENTATIVE OF A LARGER DATA SET.

CORPS OF ENGINEERS

U. S. ARMY

NOTE:

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.

COORDINATES REFER TO THE NEW JERSEY MERCATOR SYSTEM (NAD 1983)

SOUNDINGS REFER TO THE PLANE OF MEAN LOW WATER

THE PLANE OF MEAN LOW WATER IS 2.4 FEET BELOW NGVD (1929)

THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING CLASS 1 SURVEY STANDARDS IN ACCORDANCE WITH EM 1110-2-1003.

THE DATA ON THIS MAP IS REPRESENTATIVE OF A LARGER DATA SET.

CONTROL DATA
BENCHMARK: TIDAL 4 USE
ELEVATION: 19.51 (NGVD) 1929

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

DATES OF SURVEY:
15 - 17 AUGUST 2006

FILE NO.: 202
SCANS NO.: 2961A

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
14224

APPROVED: D. SMAIN FIELD CARTOGRAPHER
APPROVED: M. FORTE CIVIL ENGINEERING TECHNICIAN
APPROVED: MIM LI LEAD CARTOGRAPHER
APPROVED: R. KISS CHIEF OF SURVEY
DATE: 29 AUGUST 2006

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

NEWARK BAY, HACKENSACK & PASSAIC RIVERS
HACKENSACK RIVER

CONDITION SURVEY

VH-106

SHEET 6 OF 8

202
2967A

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

DATES OF SURVEY:
15 - 17 AUGUST 2006

FILE NO.: 202
REQUEST NO.: 2967A

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
14224

APPROVED: D. SWAIN — FIELD CHIEF/SURVEYOR
APPROVED: M. FORTE — CHIEF, ENGINEERING TECHNICIAN
APPROVED: MAM II — LEAD CHIEF/SURVEYOR
APPROVED: R. KISS — CHIEF OF SURVEY
DATE: 25 AUGUST 2006

DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

NEWARK BAY, HACKENSACK & PASSAIC RIVERS
HACKENSACK RIVER
CONDITION SURVEY

VH-107

SHEET 7 OF 8

CONTROL DATA
BENCHMARK: TIDAL 4 USE
ELEVATION: 19.51 (NGVD) 1929

NOTE:

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.

COORDINATES REFER TO THE NEW JERSEY MERCATOR SYSTEM (NAD 1983)

SOUNDINGS REFER TO THE PLANE OF MEAN LOW WATER

THE PLANE OF MEAN LOW WATER IS 2.4 FEET BELOW NGVD (1929)

THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING CLASS 1 SURVEY STANDARDS IN ACCORDANCE WITH EM 1110-2-1003.

THE DATA ON THIS MAP IS REPRESENTATIVE OF A LARGER DATA SET.

THE CONTOUR ON THIS MAP WAS CREATED WITH A LARGER DATA SET.

CONTROL DATA

BENCHMARK: TIDAL 4 USE

ELEVATION: 19.51 (NGVD) 1929

NOTE:

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.

COORDINATES REFER TO THE NEW JERSEY MERCATOR SYSTEM (NAD 1983)

SOUNDINGS REFER TO THE PLANE OF MEAN LOW WATER

THE PLANE OF MEAN LOW WATER IS 2.4 FEET BELOW NGVD (1929)

THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING CLASS 1 SURVEY STANDARDS IN ACCORDANCE WITH EM 1110-2-1003.

THE DATA ON THIS MAP IS REPRESENTATIVE OF A LARGER DATA SET.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

DATES OF SURVEY:
15 - 17 AUGUST 2006

FILE NO.: 201
REQUEST NO.: 29674

SCALE:
ONE INCH = 100 FEET

FIELD BOOKS:
14224

APPROVED: D. SWAIN — FIELD SUPERVISOR
APPROVED: M. FORTE — CIVIL INFRASTRUCTURE TECHNICIAN
APPROVED: M. KIM II — LEAD SUPERVISOR
APPROVED: R. KISS — CHIEF OF SURVEY
DATE: 25 AUGUST 2006

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

NEWARK BAY, HACKENSACK & PASSAIC RIVERS
HACKENSACK RIVER

CONDITION SURVEY

VH-108

SHEET 8 OF 8

202
29674