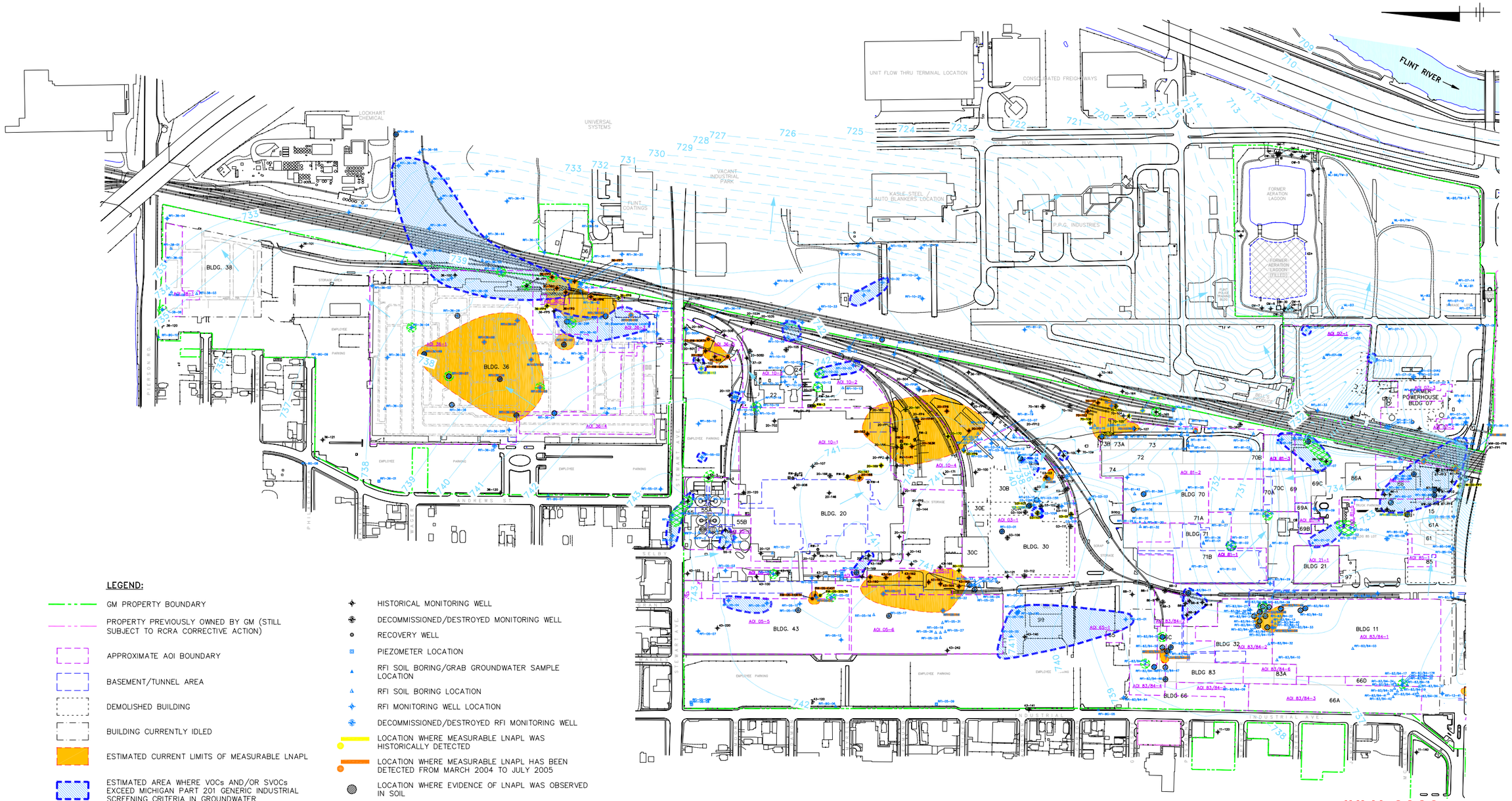


JULY 2006

LEGEND:

- GM PROPERTY BOUNDARY
- PROPERTY PREVIOUSLY OWNED BY GM (STILL SUBJECT TO RCRA CORRECTIVE ACTION)
- APPROXIMATE AOI BOUNDARY
- BASEMENT/TUNNEL AREA
- DEMOLISHED BUILDING
- BUILDING CURRENTLY IDLED
- ESTIMATED CURRENT LIMITS OF MEASURABLE LNAPL
- ESTIMATED AREA WHERE VOCs AND/OR SVOCs EXCEED MICHIGAN PART 201 GENERIC INDUSTRIAL SCREENING CRITERIA IN GROUNDWATER
- ESTIMATED AREA WHERE INORGANICS EXCEED MICHIGAN PART 201 GENERIC INDUSTRIAL SCREENING CRITERIA IN GROUNDWATER
- HISTORICAL MONITORING WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- RECOVERY WELL
- PIEZOMETER LOCATION
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- RFI SOIL BORING LOCATION
- RFI MONITORING WELL LOCATION
- DECOMMISSIONED/DESTROYED RFI MONITORING WELL
- LOCATION WHERE MEASURABLE LNAPL WAS HISTORICALLY DETECTED
- LOCATION WHERE MEASURABLE LNAPL HAS BEEN DETECTED FROM MARCH 2004 TO JULY 2005
- LOCATION WHERE EVIDENCE OF LNAPL WAS OBSERVED IN SOIL
- GENERALIZED GROUNDWATER FLOW DIRECTION
- 739 DECEMBER 2004 GROUNDWATER ELEVATION CONTOUR (IN FEET)

0 250' 500'
APPROXIMATE GRAPHIC SCALE

NOTES:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ INC., DATED APRIL 2001, AT A SCALE OF 1:100.
2. ALL LOCATIONS ARE APPROXIMATE.
3. ANALYTICAL DATA SHOWN ARE FROM MOST RECENT SAMPLING EVENT AT EACH LOCATION. ESTIMATED LIMITS OF MEASUREABLE LNAPL BASED ON MEASUREMENTS FROM MARCH 2004 TO JULY 2005.

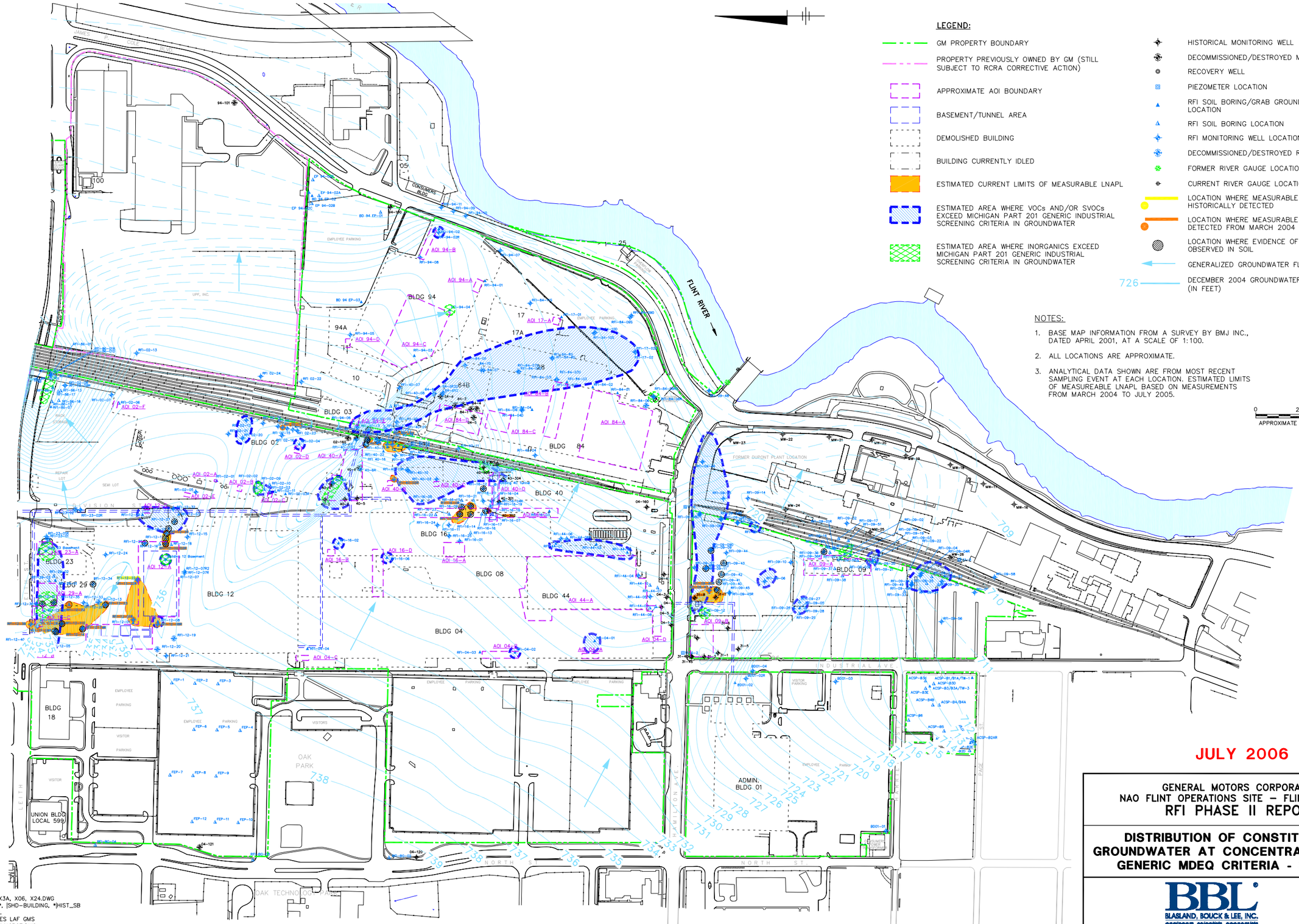
X: 64410X01, X02, X3A, X06, X24.DWG
L: ON=*, OFF=*REF*, |SHD-BUILDING, *|HIST_SB
P: PAGESET/SYR-DL
7/11/06 SYR-85-NES LAF GMS
64410112/RFI-06/64410B06.DWG

GENERAL MOTORS CORPORATION
NAO FLINT OPERATIONS SITE – FLINT, MICHIGAN
RFI PHASE II REPORT

DISTRIBUTION OF CONSTITUENTS IN GROUNDWATER AT CONCENTRATIONS ABOVE GENERIC MDEQ CRITERIA - NORTHEND

BBL
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

FIGURE
5-1



LEGEND:

- GM PROPERTY BOUNDARY
- PROPERTY PREVIOUSLY OWNED BY GM (STILL SUBJECT TO RCRA CORRECTIVE ACTION)
- APPROXIMATE AOI BOUNDARY
- BASEMENT/TUNNEL AREA
- DEMOLISHED BUILDING
- BUILDING CURRENTLY IDLED
- ESTIMATED CURRENT LIMITS OF MEASURABLE LNAPL
- ESTIMATED AREA WHERE VOCs AND/OR SVOCs EXCEED MICHIGAN PART 201 GENERIC INDUSTRIAL SCREENING CRITERIA IN GROUNDWATER
- ESTIMATED AREA WHERE INORGANICS EXCEED MICHIGAN PART 201 GENERIC INDUSTRIAL SCREENING CRITERIA IN GROUNDWATER
- HISTORICAL MONITORING WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- RECOVERY WELL
- PIEZOMETER LOCATION
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- RFI SOIL BORING LOCATION
- RFI MONITORING WELL LOCATION
- DECOMMISSIONED/DESTROYED RFI MONITORING WELL
- FORMER RIVER GAUGE LOCATION
- CURRENT RIVER GAUGE LOCATION
- LOCATION WHERE MEASURABLE LNAPL WAS HISTORICALLY DETECTED
- LOCATION WHERE MEASURABLE LNAPL HAS BEEN DETECTED FROM MARCH 2004 TO JULY 2005
- LOCATION WHERE EVIDENCE OF LNAPL WAS OBSERVED IN SOIL
- GENERALIZED GROUNDWATER FLOW DIRECTION
- 726 DECEMBER 2004 GROUNDWATER ELEVATION CONTOUR (IN FEET)

NOTES:

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3. ANALYTICAL DATA SHOWN ARE FROM MOST RECENT SAMPLING EVENT AT EACH LOCATION. ESTIMATED LIMITS OF MEASUREABLE LNAPL BASED ON MEASUREMENTS FROM MARCH 2004 TO JULY 2005.

0 200' 400'
APPROXIMATE GRAPHIC SCALE

JULY 2006

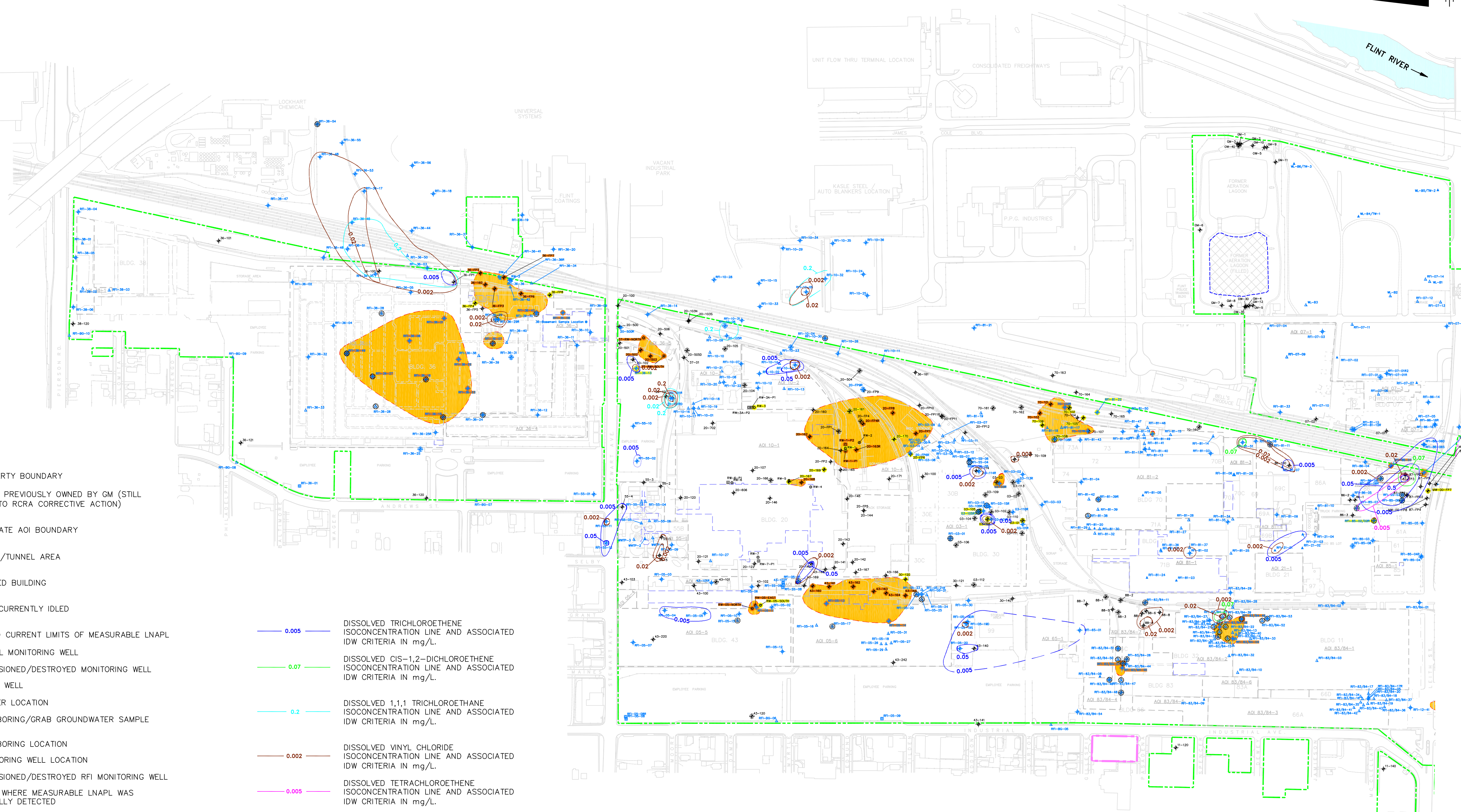
GENERAL MOTORS CORPORATION
NAO FLINT OPERATIONS SITE – FLINT, MICHIGAN
RFI PHASE II REPORT

DISTRIBUTION OF CONSTITUENTS IN GROUNDWATER AT CONCENTRATIONS ABOVE GENERIC MDEQ CRITERIA - SOUTHEND

BBL
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

FIGURE
5-2

X: 64410X01, X02, X3A, X06, X24.DWG
L: ON=*, OFF=*REF*, |SHD-BUILDING, *|HIST_SB
P: PAGESET/SYR-DL
7/11/06 SYR-85-NES LAF GMS
64410112/RFI-06/64410B07.DWG



LEGEND:

GM PROPERTY BOUNDARY

PROPERTY PREVIOUSLY OWNED BY GM (STILL SUBJECT TO RCRA CORRECTIVE ACTION)

APPROXIMATE AOI BOUNDARY

BASEMENT/TUNNEL AREA

DEMOLISHED BUILDING

BUILDING CURRENTLY IDLED

ESTIMATED CURRENT LIMITS OF MEASURABLE LNAPL

HISTORICAL MONITORING WELL

DECOMMISSIONED/DESTROYED MONITORING WELL

RECOVERY WELL

PIEZOMETER LOCATION

RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION

RFI SOIL BORING LOCATION

RFI MONITORING WELL LOCATION

DECOMMISSIONED/DESTROYED RFI MONITORING WELL

LOCATION WHERE MEASURABLE LNAPL WAS HISTORICALLY DETECTED

LOCATION WHERE MEASURABLE LNAPL HAS BEEN DETECTED FROM MARCH 2004 TO JULY 2005

LOCATION WHERE EVIDENCE OF LNAPL WAS OBSERVED IN SOIL

0.005 — DISSOLVED TRICHLOROETHENE ISOCONCENTRATION LINE AND ASSOCIATED IDW CRITERIA IN mg/L.

0.07 — DISSOLVED CIS-1,2-DICHLOROETHENE ISOCONCENTRATION LINE AND ASSOCIATED IDW CRITERIA IN mg/L.

0.2 — DISSOLVED 1,1,1 TRICHLOROETHANE ISOCONCENTRATION LINE AND ASSOCIATED IDW CRITERIA IN mg/L.

0.002 — DISSOLVED VINYL CHLORIDE ISOCONCENTRATION LINE AND ASSOCIATED IDW CRITERIA IN mg/L.

0.005 — DISSOLVED TETRACHLOROETHENE ISOCONCENTRATION LINE AND ASSOCIATED IDW CRITERIA IN mg/L.

0 250' 500'
APPROXIMATE GRAPHIC SCALE

NOTES:

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2. ALL LOCATIONS ARE APPROXIMATE.
3. ANALYTICAL DATA SHOWN ARE FROM MOST RECENT SAMPLING EVENT AT EACH LOCATION. ESTIMATED LIMITS OF MEASUREABLE LNAPL BASED ON MEASUREMENTS FROM MARCH 2004 TO JULY 2005.
4. ISOCONCENTRATION LINES WITH THE LOWEST CONCENTRATION SHOWN REPRESENT MICHIGAN PART 201 GENERIC IDW CRITERIA.

X: 64410X01, X02, X3A, X06.DWG
L: ON=*, OFF=*REF*, |SHD-BUILDING, *|HIST_SB
P: PAGESET/SYR-DL
7/11/06 SYR-85-NES LAF GMS
64410112/RFI-06/64410B08.DWG

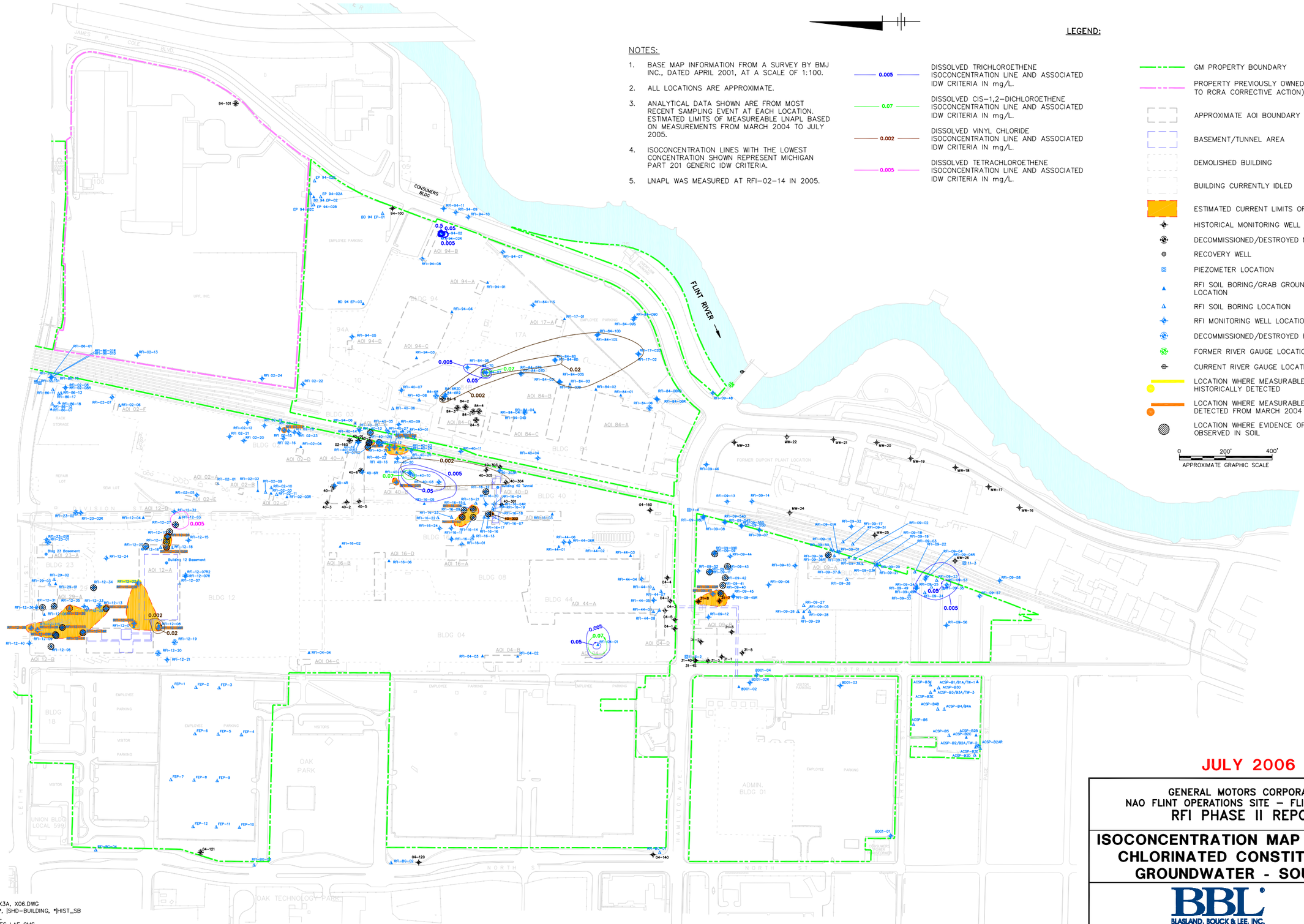
JULY 2006

GENERAL MOTORS CORPORATION
NAO FLINT OPERATIONS SITE – FLINT, MICHIGAN
RFI PHASE II REPORT

ISOCONCENTRATION MAP OF SELECT CHLORINATED CONSTITUENTS IN GROUNDWATER - NORTHEND

BBL® BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

FIGURE
5-3



NOTES:

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3. ANALYTICAL DATA SHOWN ARE FROM MOST RECENT SAMPLING EVENT AT EACH LOCATION. ESTIMATED LIMITS OF MEASUREABLE LNAPL BASED ON MEASUREMENTS FROM MARCH 2004 TO JULY 2005.
4. ISOCONCENTRATION LINES WITH THE LOWEST CONCENTRATION SHOWN REPRESENT MICHIGAN PART 201 GENERIC IDW CRITERIA.
5. LNAPL WAS MEASURED AT RFI-02-14 IN 2005.

LEGEND:

- 0.005 — DISSOLVED TRICHLOROETHENE ISOCONCENTRATION LINE AND ASSOCIATED IDW CRITERIA IN mg/L.
- 0.07 — DISSOLVED CIS-1,2-DICHLOROETHENE ISOCONCENTRATION LINE AND ASSOCIATED IDW CRITERIA IN mg/L.
- 0.002 — DISSOLVED VINYL CHLORIDE ISOCONCENTRATION LINE AND ASSOCIATED IDW CRITERIA IN mg/L.
- 0.005 — DISSOLVED TETRACHLOROETHENE ISOCONCENTRATION LINE AND ASSOCIATED IDW CRITERIA IN mg/L.
- GM PROPERTY BOUNDARY
- PROPERTY PREVIOUSLY OWNED BY GM (STILL SUBJECT TO RCRA CORRECTIVE ACTION)
- APPROXIMATE AOI BOUNDARY
- BASEMENT/TUNNEL AREA
- DEMOLISHED BUILDING
- BUILDING CURRENTLY IDLED
- ESTIMATED CURRENT LIMITS OF MEASURABLE LNAPL
- HISTORICAL MONITORING WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- RECOVERY WELL
- PIEZOMETER LOCATION
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- RFI SOIL BORING LOCATION
- RFI MONITORING WELL LOCATION
- DECOMMISSIONED/DESTROYED RFI MONITORING WELL
- FORMER RIVER GAUGE LOCATION
- CURRENT RIVER GAUGE LOCATION
- LOCATION WHERE MEASURABLE LNAPL WAS HISTORICALLY DETECTED
- LOCATION WHERE MEASURABLE LNAPL HAS BEEN DETECTED FROM MARCH 2004 TO JULY 2005
- LOCATION WHERE EVIDENCE OF LNAPL WAS OBSERVED IN SOIL

0 200' 400'
APPROXIMATE GRAPHIC SCALE

JULY 2006

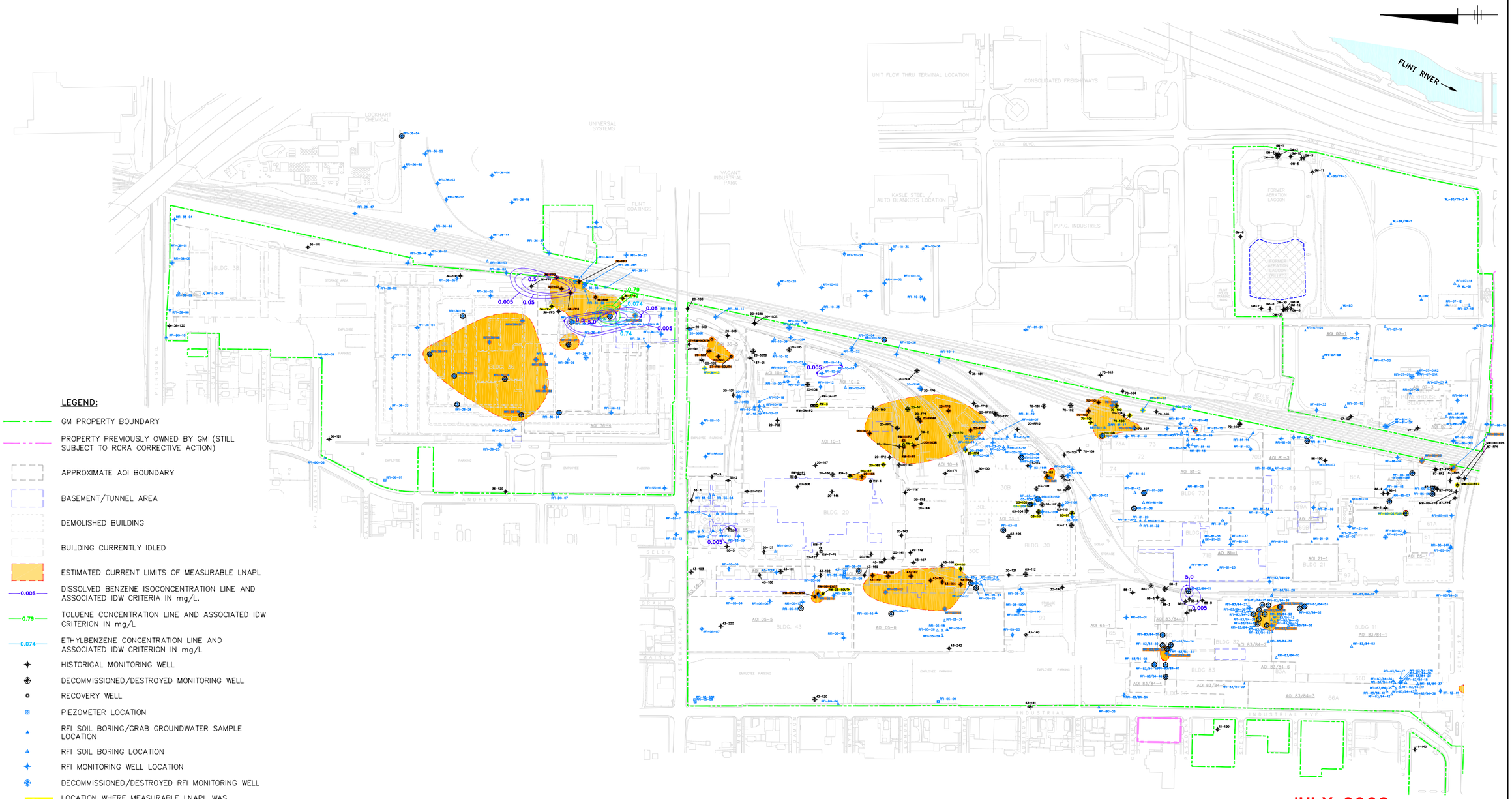
GENERAL MOTORS CORPORATION
NAO FLINT OPERATIONS SITE – FLINT, MICHIGAN
RFI PHASE II REPORT

ISOCONCENTRATION MAP OF SELECT CHLORINATED CONSTITUENTS IN GROUNDWATER - SOUTHEND

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

FIGURE
5-4

X: 64410X01, X02, X3A, X06.DWG
L: ON=*, OFF=*REF*, |SHD-BUILDING, *|HIST_SB
P: PAGESET/SYR-DL
7/11/06 SYR-85-NES LAF GMS
64410112/RFI-06/64410B09.DWG



LEGEND:

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- APPROXIMATE AOI BOUNDARY
- BASEMENT/TUNNEL AREA
- DEMOLISHED BUILDING
- BUILDING CURRENTLY IDLED
- ESTIMATED CURRENT LIMITS OF MEASURABLE LNAPL
- 0.005 — DISSOLVED BENZENE ISOCONCENTRATION LINE AND ASSOCIATED IDW CRITERIA IN mg/L.
- 0.79 — TOLUENE CONCENTRATION LINE AND ASSOCIATED IDW CRITERION IN mg/L
- 0.074 — ETHYLBENZENE CONCENTRATION LINE AND ASSOCIATED IDW CRITERION IN mg/L
- HISTORICAL MONITORING WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- RECOVERY WELL
- PIEZOMETER LOCATION
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- RFI SOIL BORING LOCATION
- RFI MONITORING WELL LOCATION
- DECOMMISSIONED/DESTROYED RFI MONITORING WELL
- LOCATION WHERE MEASURABLE LNAPL WAS HISTORICALLY DETECTED
- LOCATION WHERE MEASURABLE LNAPL HAS BEEN DETECTED FROM MARCH 2004 TO JULY 2005
- LOCATION WHERE EVIDENCE OF LNAPL WAS OBSERVED IN SOIL

0 250' 500'
APPROXIMATE GRAPHIC SCALE

NOTES:

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4. ISOCONCENTRATION LINES WITH THE LOWEST CONCENTRATION SHOWN REPRESENT MICHIGAN PART 201 GENERIC IDW CRITERIA.

X: 64410X01, X02, X3A, X06.DWG
L: ON=*, OFF=*REF*, |SHD-BUILDING, *|HIST_SB
P: PAGESET/SYR-DL
7/11/06 SYR-85-NES LAF GMS
64410112/RFI-06/64410B10.DWG

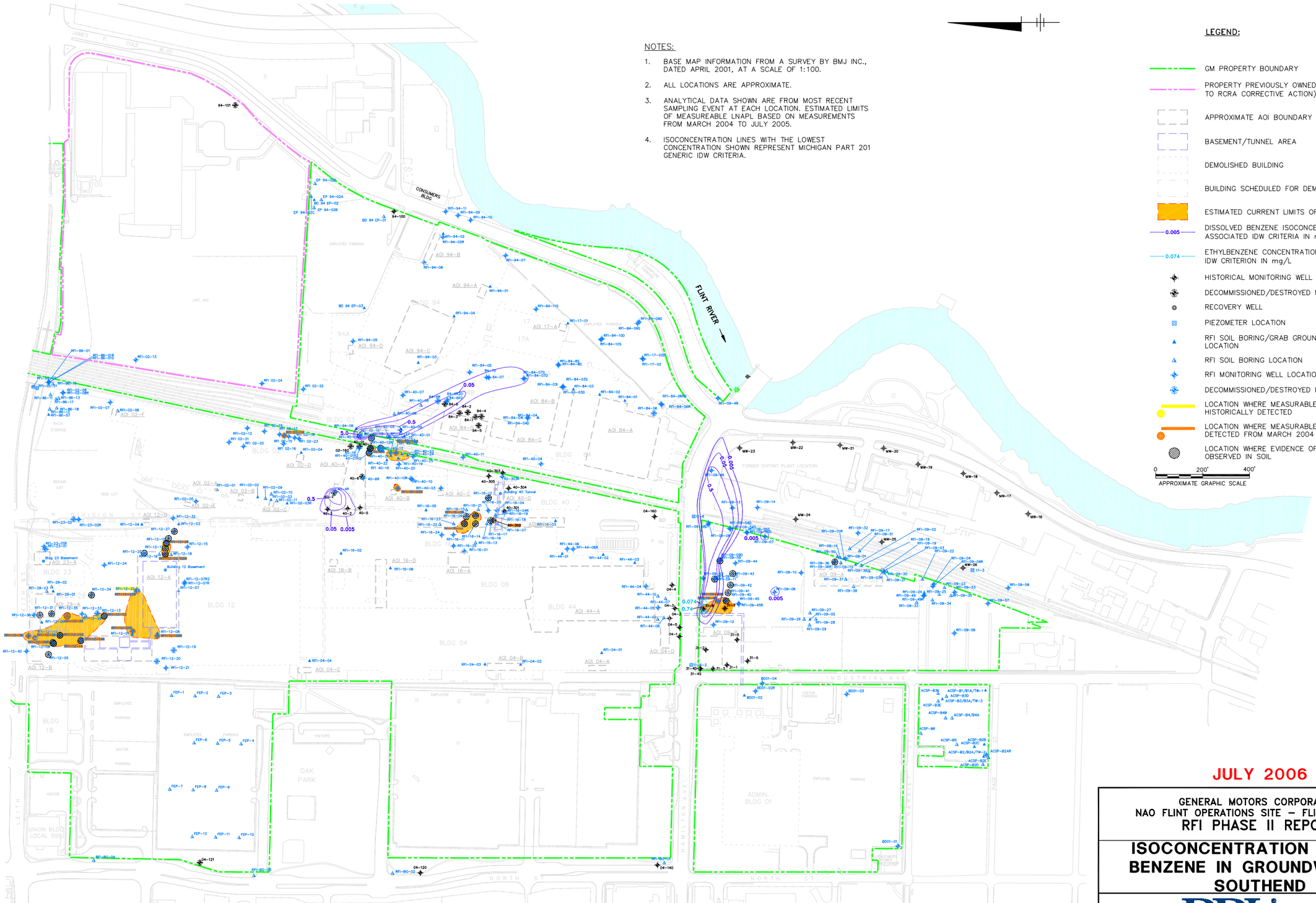
JULY 2006

GENERAL MOTORS CORPORATION
NAO FLINT OPERATIONS SITE – FLINT, MICHIGAN
RFI PHASE II REPORT

ISOCONCENTRATION MAP OF BENZENE, TOLUENE AND ETHYLBENZENE IN GROUNDWATER - NORTHEND

BBL
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

FIGURE
5-5



NOTES:

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2. ALL LOCATIONS ARE APPROXIMATE.
3. ANALYTICAL DATA SHOWN ARE FROM MOST RECENT SAMPLING EVENT AT EACH LOCATION. ESTIMATED LIMITS OF MEASUREABLE LNAPL BASED ON MEASUREMENTS FROM MARCH 2004 TO JULY 2005.
4. ISOCONCENTRATION LINES WITH THE LOWEST CONCENTRATION SHOWN REPRESENT MICHIGAN PART 201 GENERIC IDW CRITERIA.

LEGEND:

- GM PROPERTY BOUNDARY
- PROPERTY PREVIOUSLY OWNED BY GM (STILL SUBJECT TO RCRA CORRECTIVE ACTION)
- APPROXIMATE AOI BOUNDARY
- BASEMENT/TUNNEL AREA
- DEMOLISHED BUILDING
- BUILDING SCHEDULED FOR DEMOLITION
- ESTIMATED CURRENT LIMITS OF MEASURABLE LNAPL
- 0.005 — DISSOLVED BENZENE ISOCONCENTRATION LINE AND ASSOCIATED IDW CRITERIA IN mg/L
- 0.074 — ETHYLBENZENE CONCENTRATION LINE AND ASSOCIATED IDW CRITERION IN mg/L
- HISTORICAL MONITORING WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- RECOVERY WELL
- PIEZOMETER LOCATION
- RFI SOIL BORING/GRAB GROUNDWATER SAMPLE LOCATION
- RFI SOIL BORING LOCATION
- RFI MONITORING WELL LOCATION
- DECOMMISSIONED/DESTROYED RFI MONITORING WELL
- LOCATION WHERE MEASURABLE LNAPL WAS HISTORICALLY DETECTED
- LOCATION WHERE MEASURABLE LNAPL HAS BEEN DETECTED FROM MARCH 2004 TO JULY 2005
- LOCATION WHERE EVIDENCE OF LNAPL WAS OBSERVED IN SOIL

0 200' 400'
APPROXIMATE GRAPHIC SCALE

JULY 2006

GENERAL MOTORS CORPORATION
NAO FLINT OPERATIONS SITE – FLINT, MICHIGAN
RFI PHASE II REPORT

ISOCONCENTRATION MAP OF BENZENE IN GROUNDWATER - SOUTHEND

BBL
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

FIGURE
5-6

X: 64410X01, X3A, X06.DWG
L: ON=*, OFF=*REF*, |SHD-BUILDING, *|HIST_SB
P: PAGESET/SYR-DL
7/11/06 SYR-85-NES LAF GMS
64410112/RFI-06/64410B11.DWG