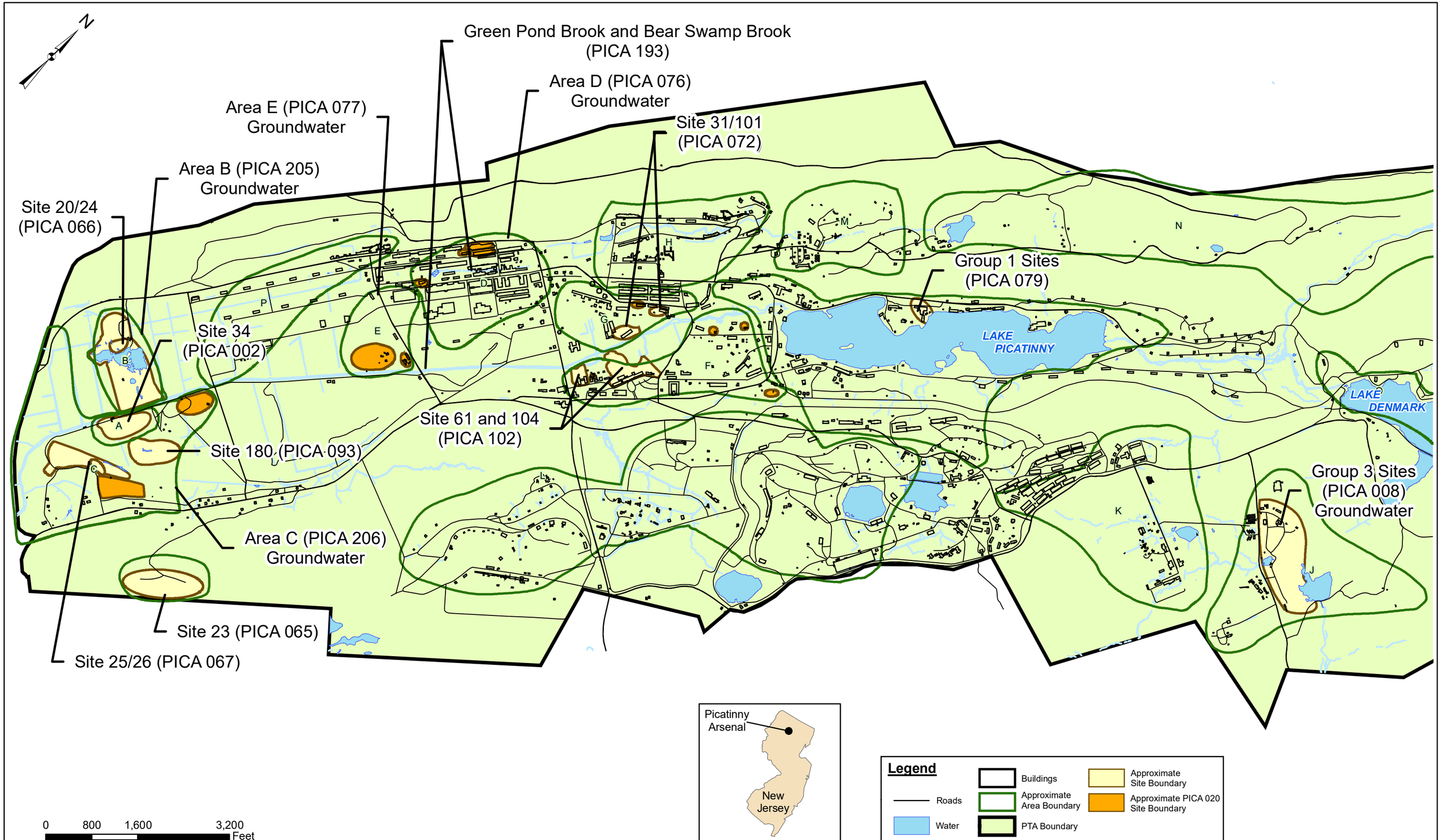
Appendix 2 - Figures



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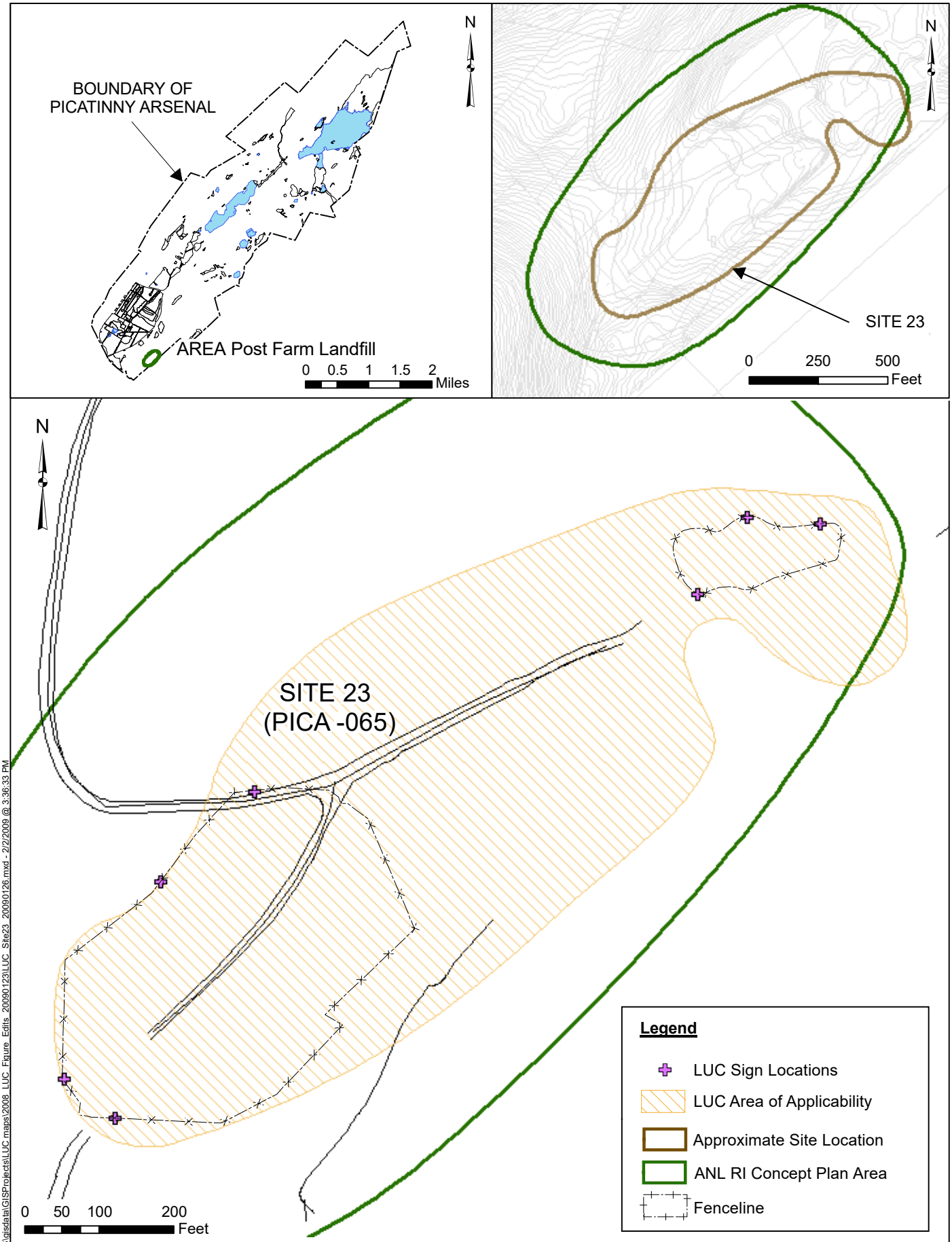
US Army Garrison
Picatinny Arsenal, NJ

REMEDIAL LOCATIONS
PICATINNY ARSENAL, DOVER, NEW JERSEY

PROJECT MANAGER T. LLEWELLYN	DEPARTMENT MANAGER M. MOHIUDDIN
DRAWN M. GRESS	CHECKED T. CRONE
	DRAWING NUMBER 1-1



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Edison, NJ 08817
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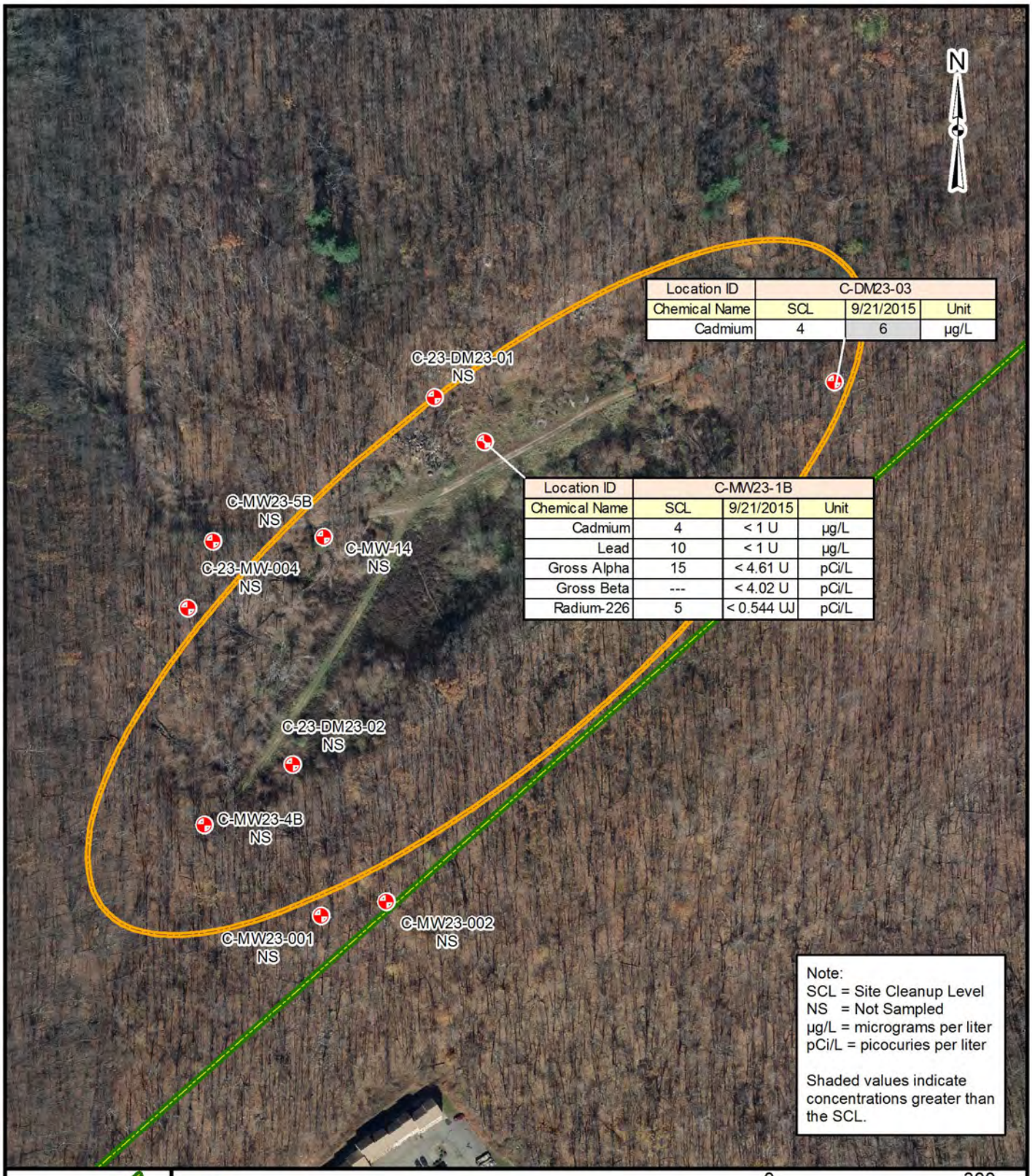
Fax: (732) 225-5067

LAYOUT OF LUC AREA SITE 23 (PICA-065)

POST FARM LANDFILL

PICATINNY ARSENAL, NEW JERSEY

PROJECT MANAGER T. LLEWELLYN	DEPARTMENT MANAGER R. KHURI
DRAWN M. GRESS	CHECKED K. BEIER
PROJECT NUMBER GP06PICA.P065.KG001	FIGURE 5-1



Location ID	C-DM23-03		
Chemical Name	SCL	9/21/2015	Unit
Cadmium	4	6	µg/L

Location ID	C-MW23-1B		
Chemical Name	SCL	9/21/2015	Unit
Cadmium	4	< 1 U	µg/L
Lead	10	< 1 U	µg/L
Gross Alpha	15	< 4.61 U	pCi/L
Gross Beta	---	< 4.02 U	pCi/L
Radium-226	5	< 0.544 UJ	pCi/L

Installation Boundary

Post Farm Landfill (PICA-065)

Groundwater Monitoring Well

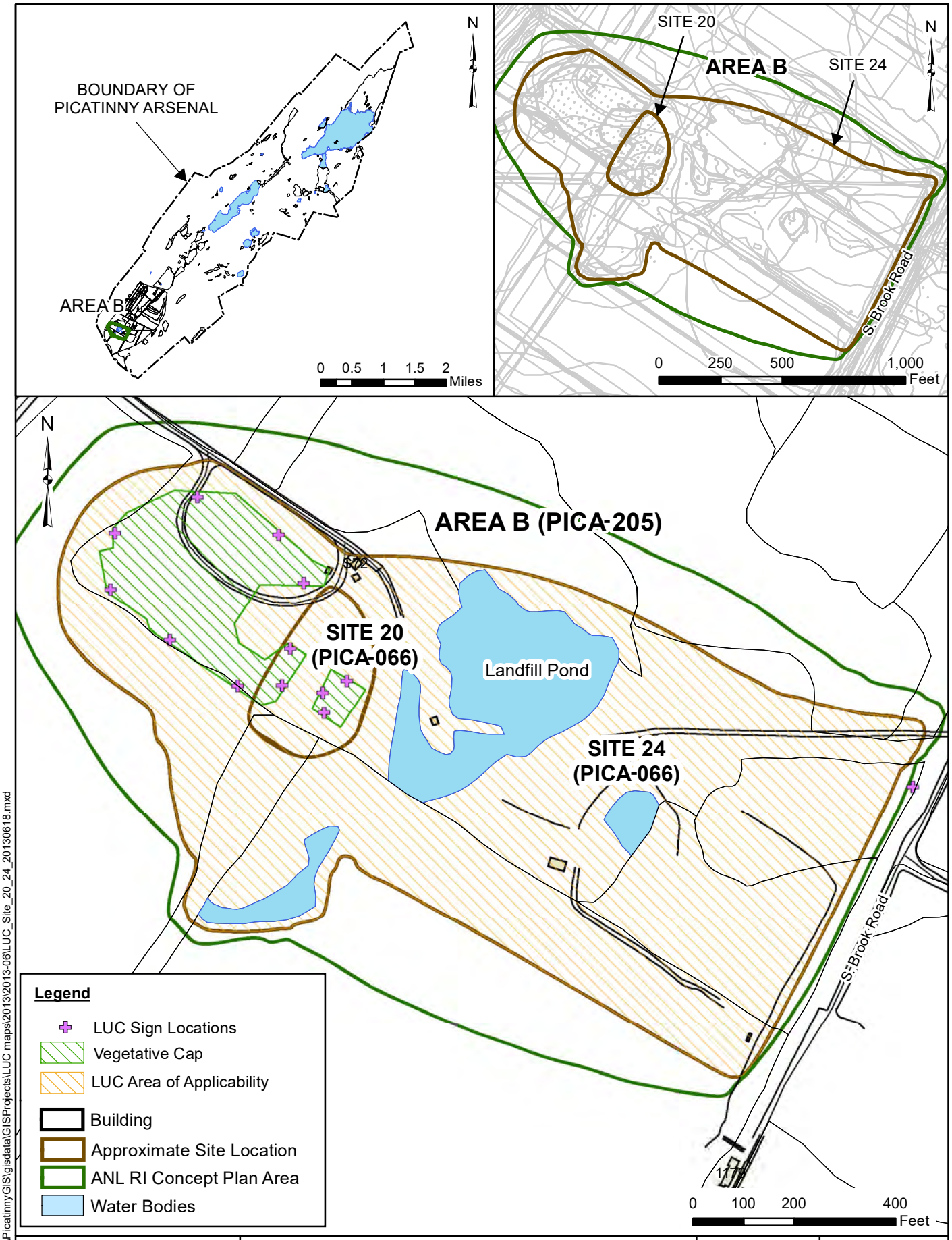
0 300

Feet

EA Engineering, Science, and Technology, Inc., PBC

2015 ANNUAL REPORT
SITE 23 - POST FARM LANDFILL (PICA-065)
PICATINNY ARSENAL

Figure 3
Groundwater Concentration Map



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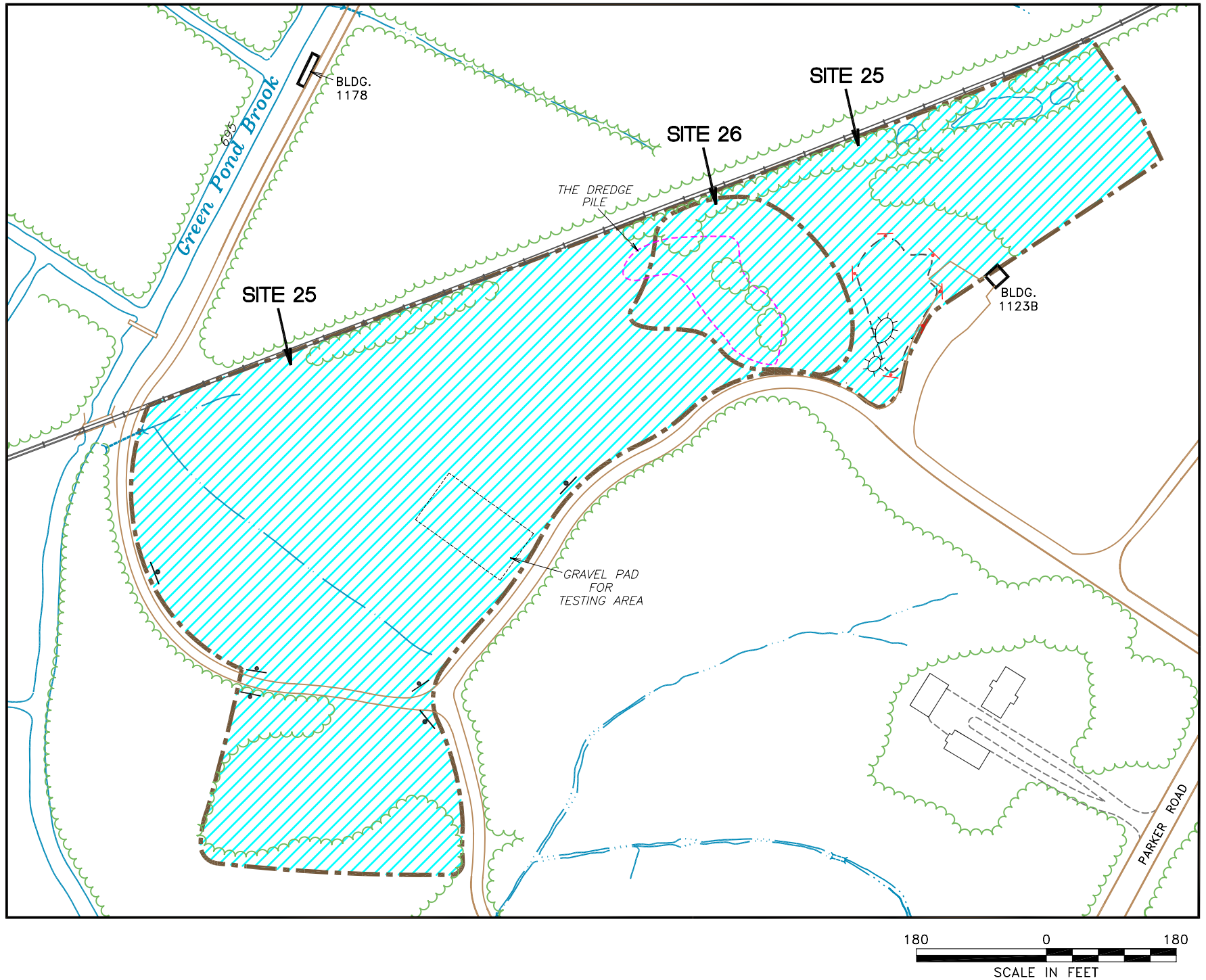
LAYOUT OF LUC AREA SITE 20/24 (PICA-066) AND AREA B (PICA-205) GROUNDWATER PICATINNY ARSENAL, NEW JERSEY

PROJECT MANAGER T. LLEWELLYN	DEPARTMENT MANAGER R. KHURI
DRAWN M. GRESS	CHECKED K. BEIER
PROJECT NUMBER GP06PICA.SITE.NB008	FIGURE 6-1



N

LEGEND:

- AREA OF APPLICABILITY OF LAND USE CONTROLS
- SOIL COVER BOUNDARY
- APPROXIMATE SITE BOUNDARY (LIMIT OF SITE 25/26 ADDRESSED BY LAND USE CONTROLS)
- DRAINAGE DITCH
- SIGN LOCATION
- SIGN LOCATION

SIGNS IN BLACK (6 TOTAL) SHALL APPEAR AS SHOWN BELOW:

NOTICE

Environmentaly Restricted Area

DIGGING NOT PERMITTED

Call Environmental Office X6748

SIGNS IN RED (6 TOTAL) SHALL APPEAR AS SHOWN BELOW:

NOTICE

Environmental Soil Cover

DO NOT DISTURB

Call Environmental Office X6748

MAP SOURCE: SHAW ENVIRONMENTAL, INC. RECORD OF DECISION

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LAND USE CONTROL PLAN

SITE 25/26 (PICA 067)
SANITARY LANDFILL AND
DREDGE PILE
PICATINNY ARSENAL, NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER
TL	RK
DRAWN	CHECKED
JSG	TEC
PROJECT NUMBER	FIGURE
GP06PICA.P067	7-1

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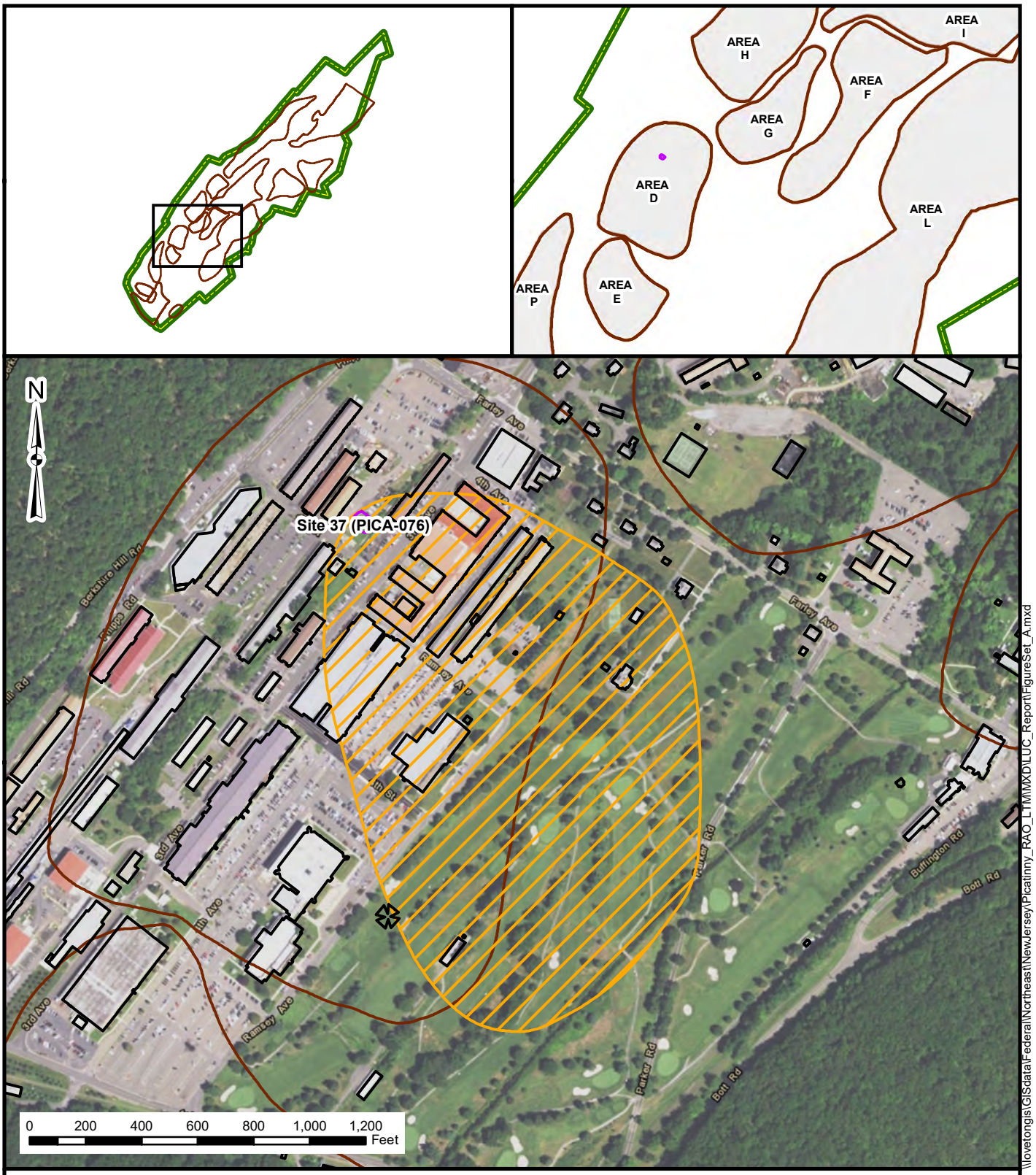
Date\Time : Tue, 31 Jul 2007 - 9:21am



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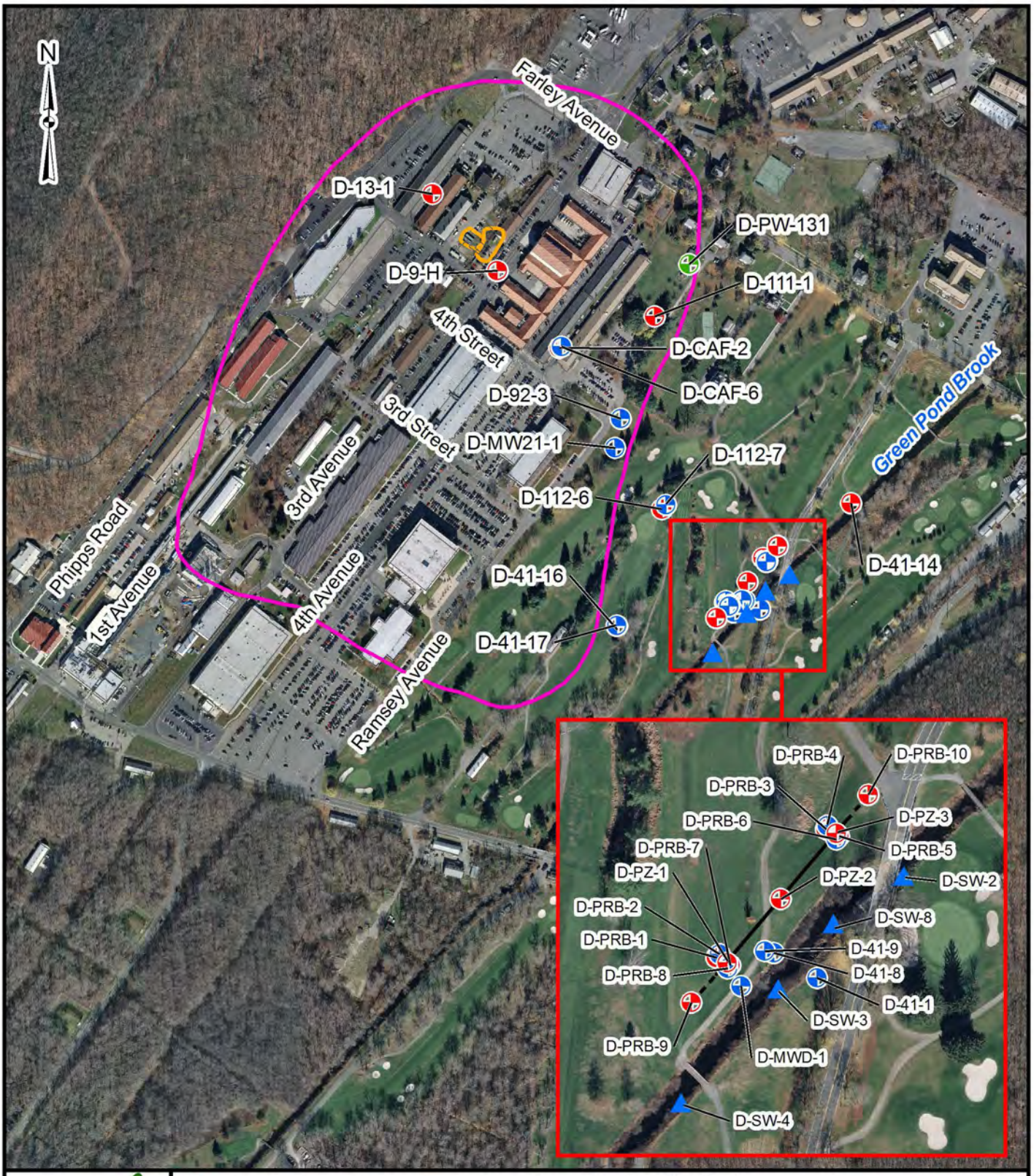
Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location
- LUC Area of Applicability

ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure 8-1
Area D (PICA-076)

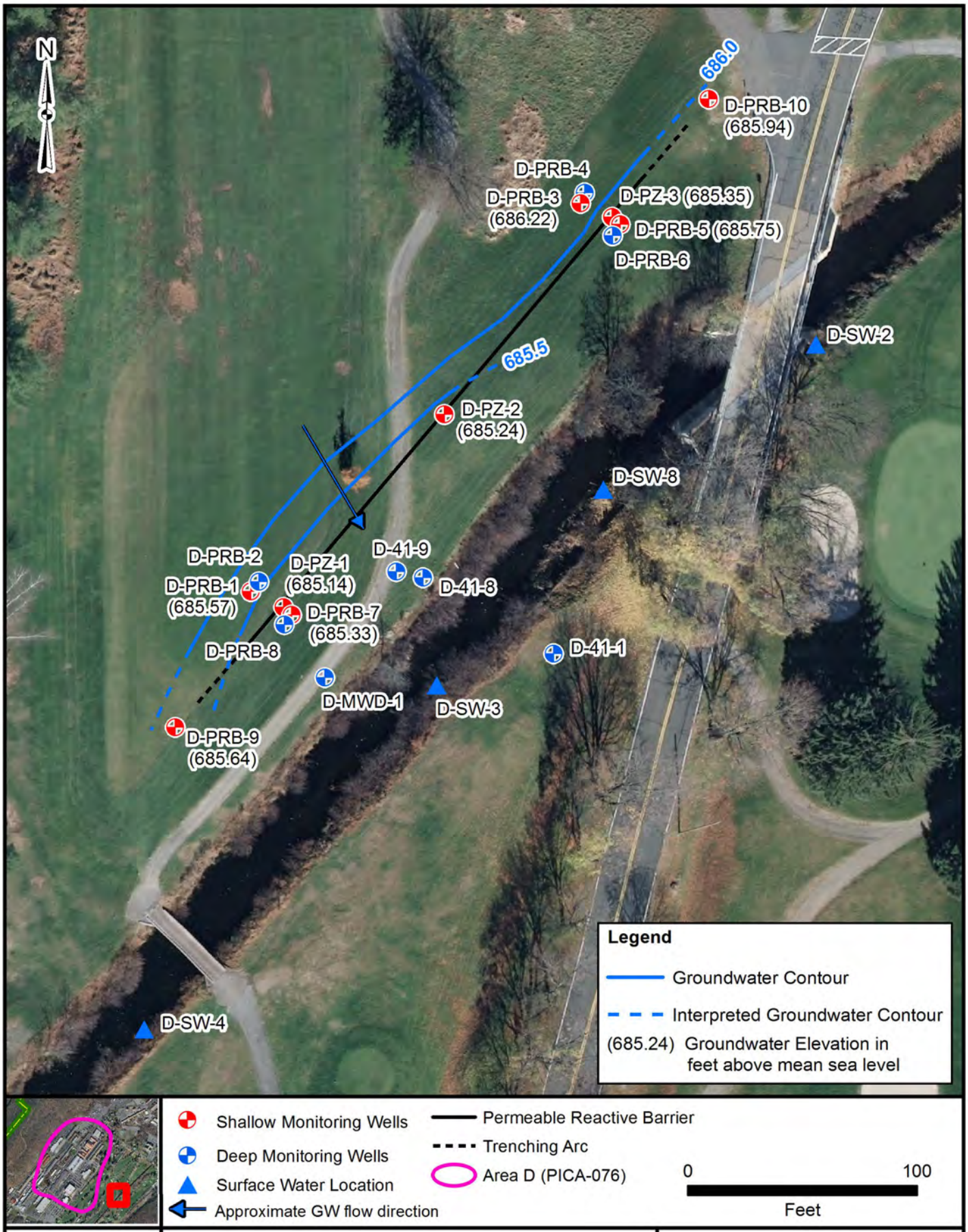


Shallow Monitoring Wells
Deep Monitoring Wells
Drinking Water Supply Well
Surface Water Location
Permeable Reactive Barrier
Area D (PICA-076)
Former Source Area (Sites 21 and 37)
0 1,000
Feet

EA Engineering, Science, and Technology, Inc., PBC

2015 ANNUAL REPORT
AREA D (PICA-076)
PICATINNY ARSENAL

Figure 8-2a
Area D (PICA-076)
Sample Locations



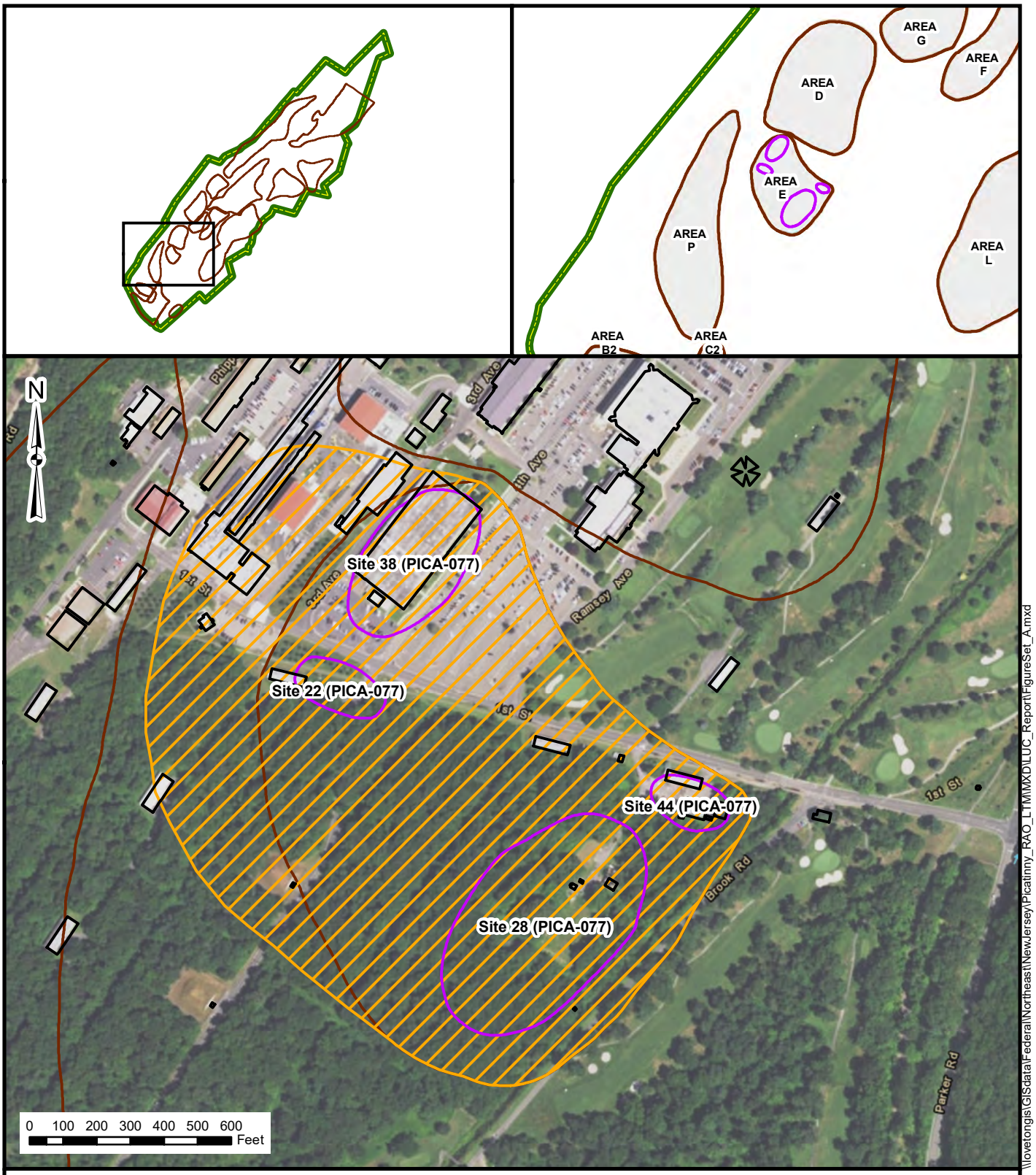
Shallow Monitoring Wells
Deep Monitoring Wells
Surface Water Location
Approximate GW flow direction
Permeable Reactive Barrier
Trenching Arc
Area D (PICA-076)

0 100
Feet

EA Engineering, Science, and Technology, Inc., PBC

2015 ANNUAL REPORT
AREA D (PICA-076)
PICATINNY ARSENAL

Figure 8-2b
Groundwater Elevations (Shallow)
PRB Network (3rd Quarter 2015)



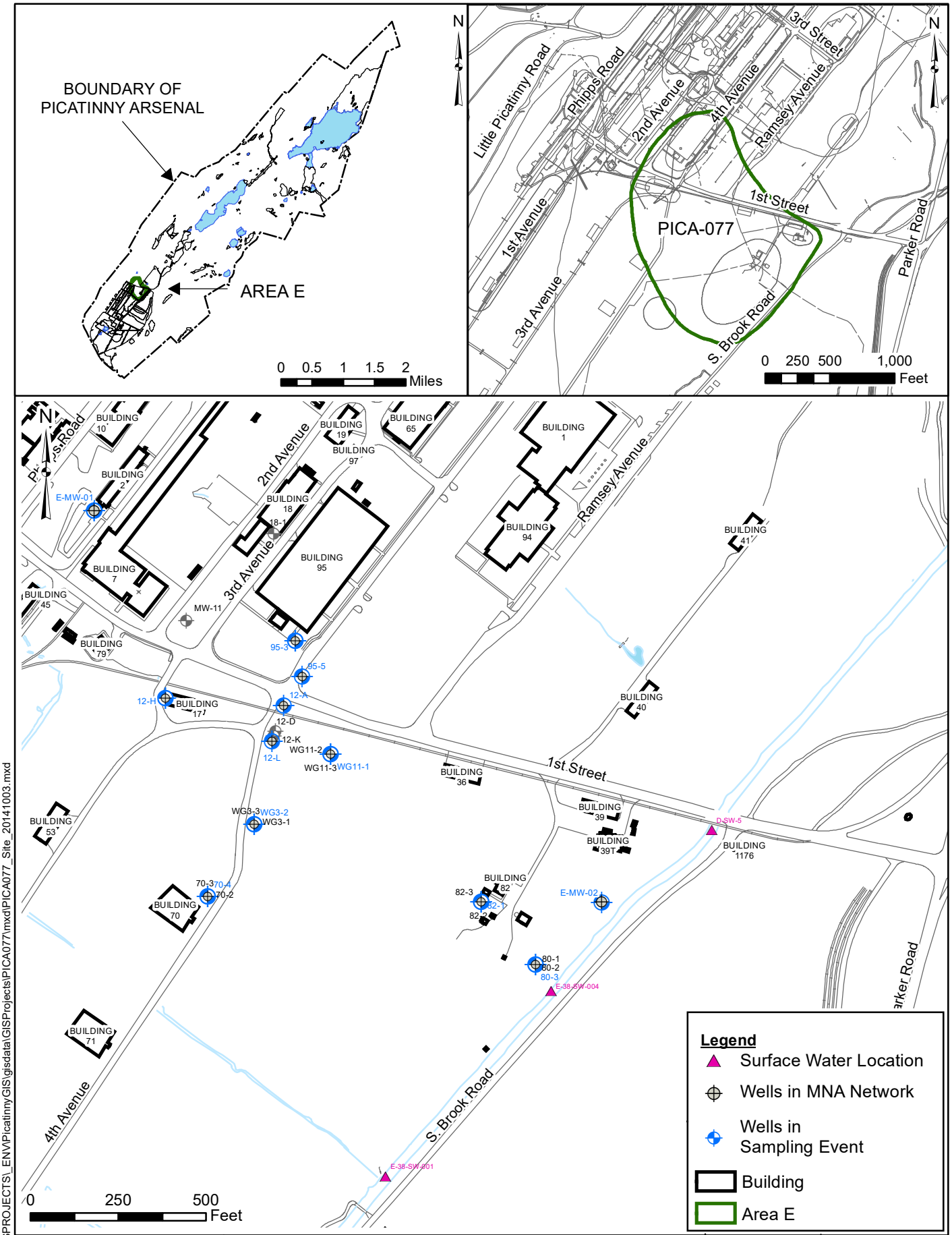
Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location
- LUC Area of Applicability

ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure 9-1
Area E (PICA-077)

\\lovetongis\GISdata\Federal\Northeast\NewJersey\Picatinny_RAO_LTM\MXD\LUC_Report\FigureSet_A.mxd



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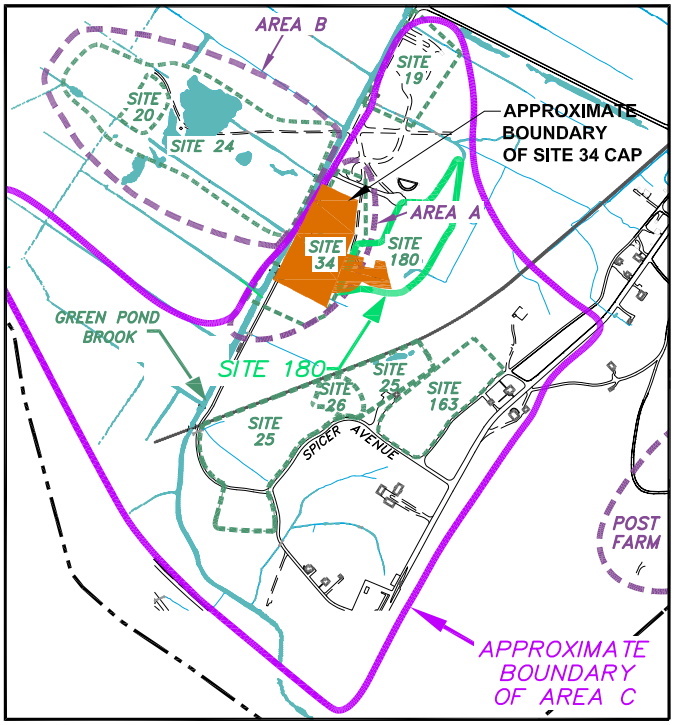
Millersville, MD 21108
Phone: (410) 987-0032
Fax: (410) 987-4392

AREA E (PICA-077) SITE LOCATION, MONITORING WELL NETWORK, AND SURFACE WATER SAMPLE LOCATIONS PICATINNY ARSENAL, NEW JERSEY

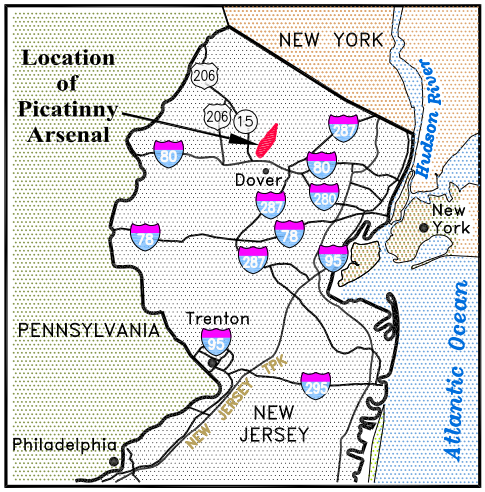
PROJECT MANAGER T. LLEWELLYN	DEPARTMENT MANAGER J.CHERRY
DRAWN M. GRESS	CHECKED S.KAMAS
PROJECT NUMBER GP06PICA.LM13.4MD13	DRAWING NUMBER 9-2



AREA C SITE PLAN

0 1000

FEET



LOCATION OF PICATINNY

0 50

MILES

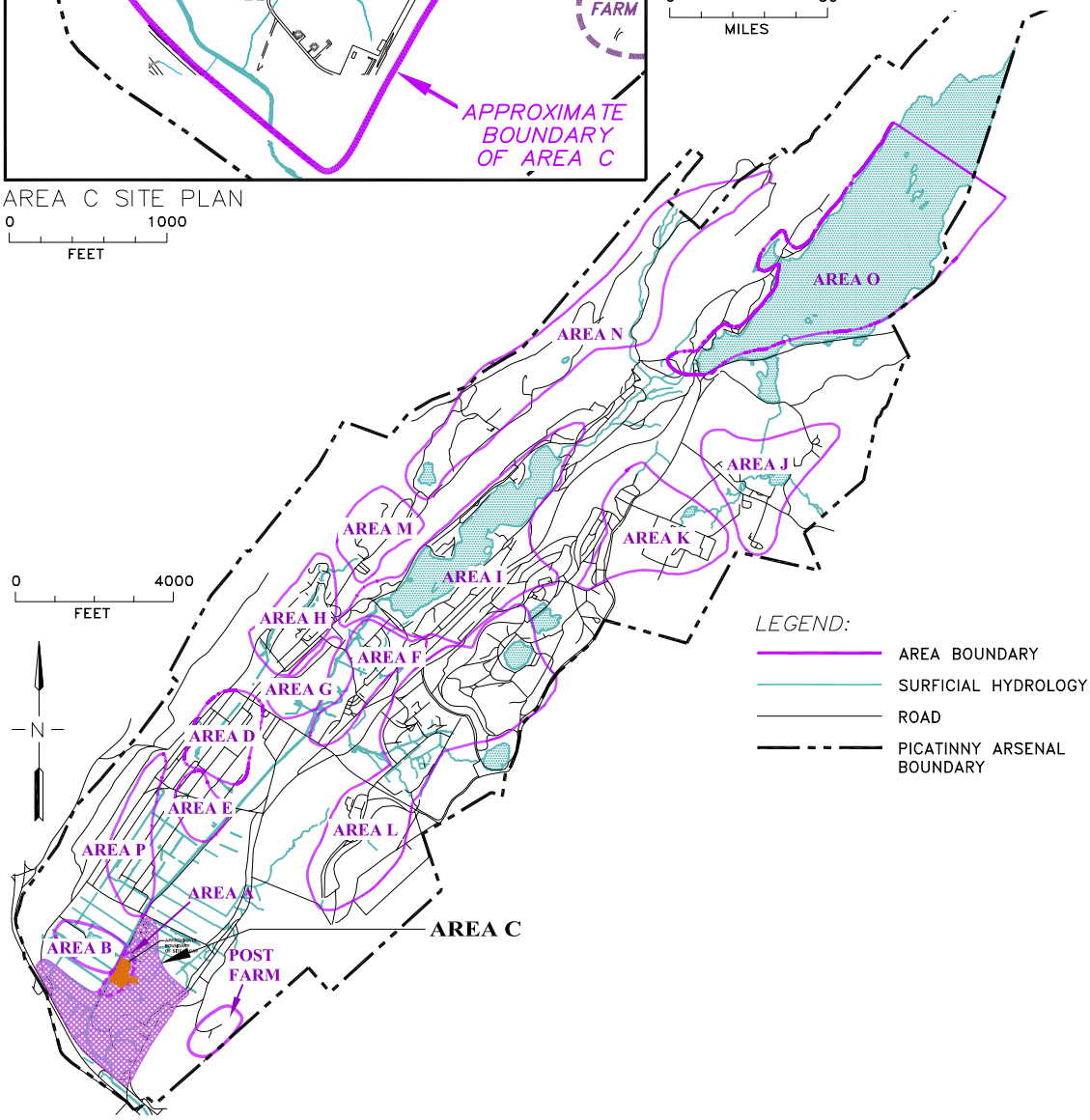


FIGURE REPRODUCED FROM SHAW, 2005

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Date\Time : Tue, 23 Oct 2007 - 4:28pm

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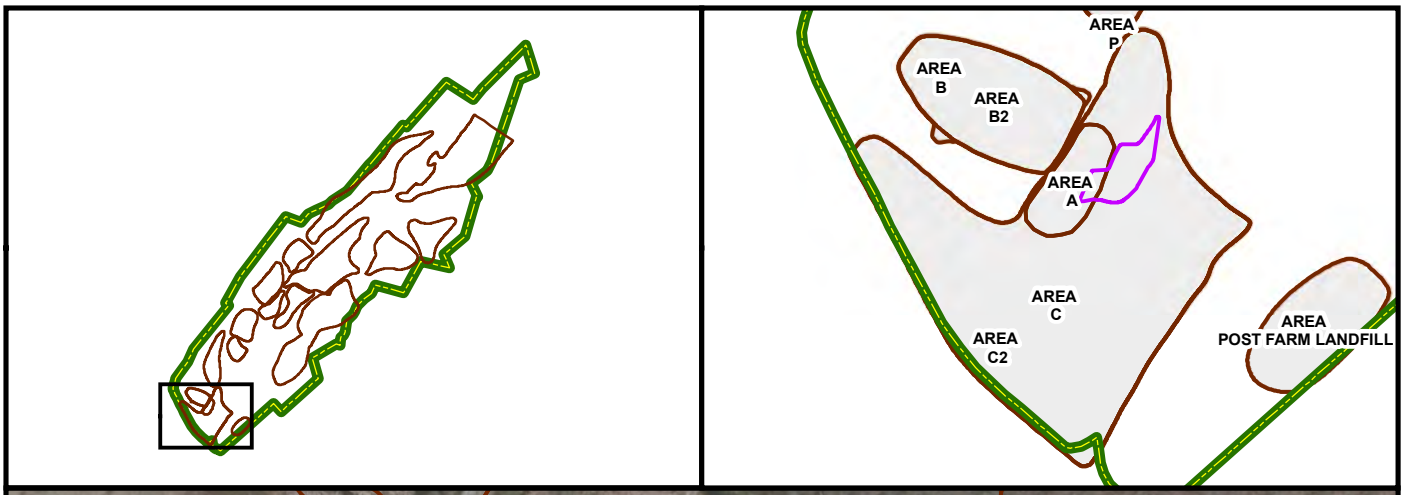
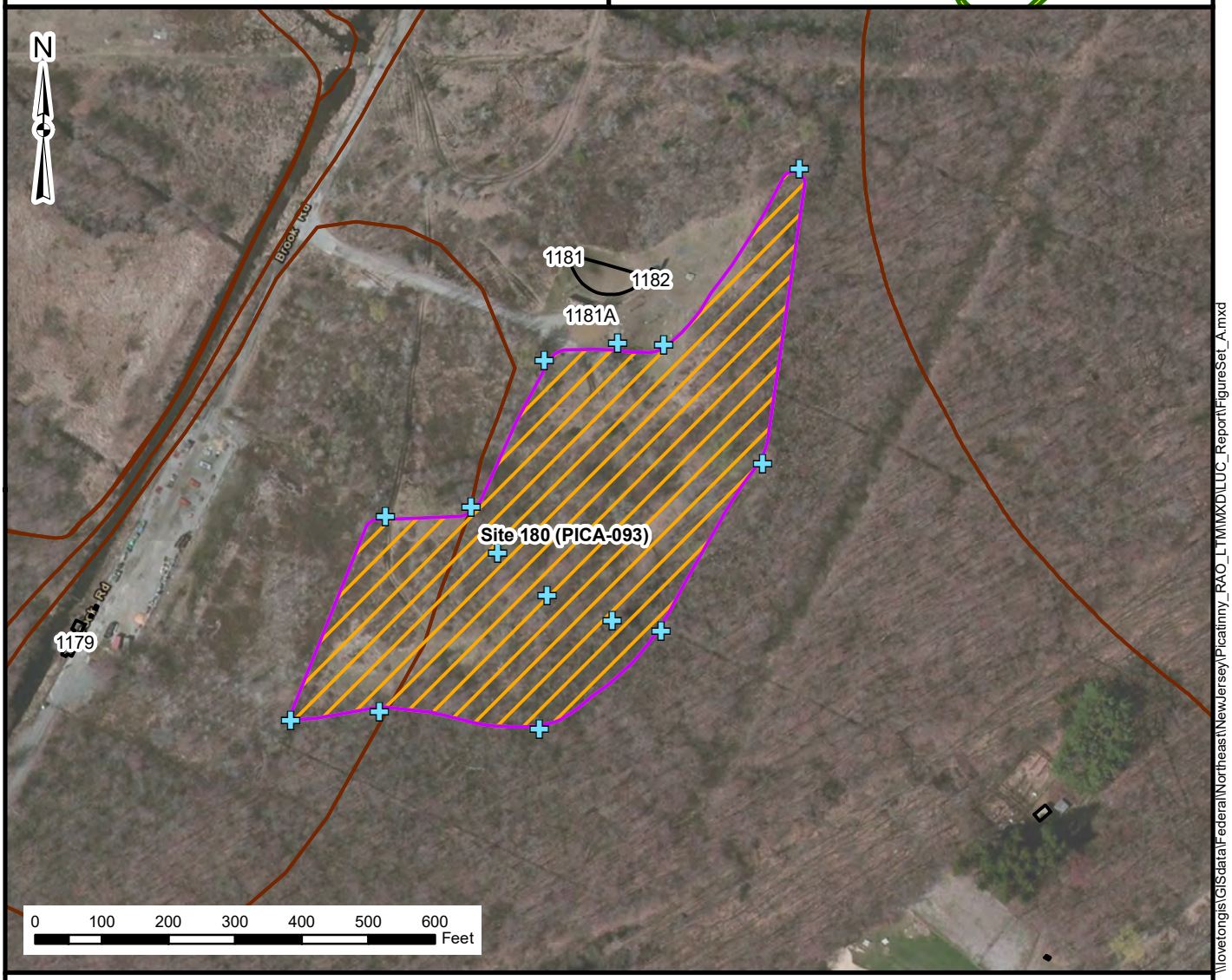
SITE LOCATION PLAN

PICATINNY ARSENAL
DOVER, NEW JESREY

PROJECT MANAGER T.LLEWELLYN	DEPARTMENT MANAGER T.CRONE
DRAFTER J.GOFORTH	CHECKED R.SAGANA
PROJECT NUMBER GP06PICA.P093	DRAWING NUMBER 10-1





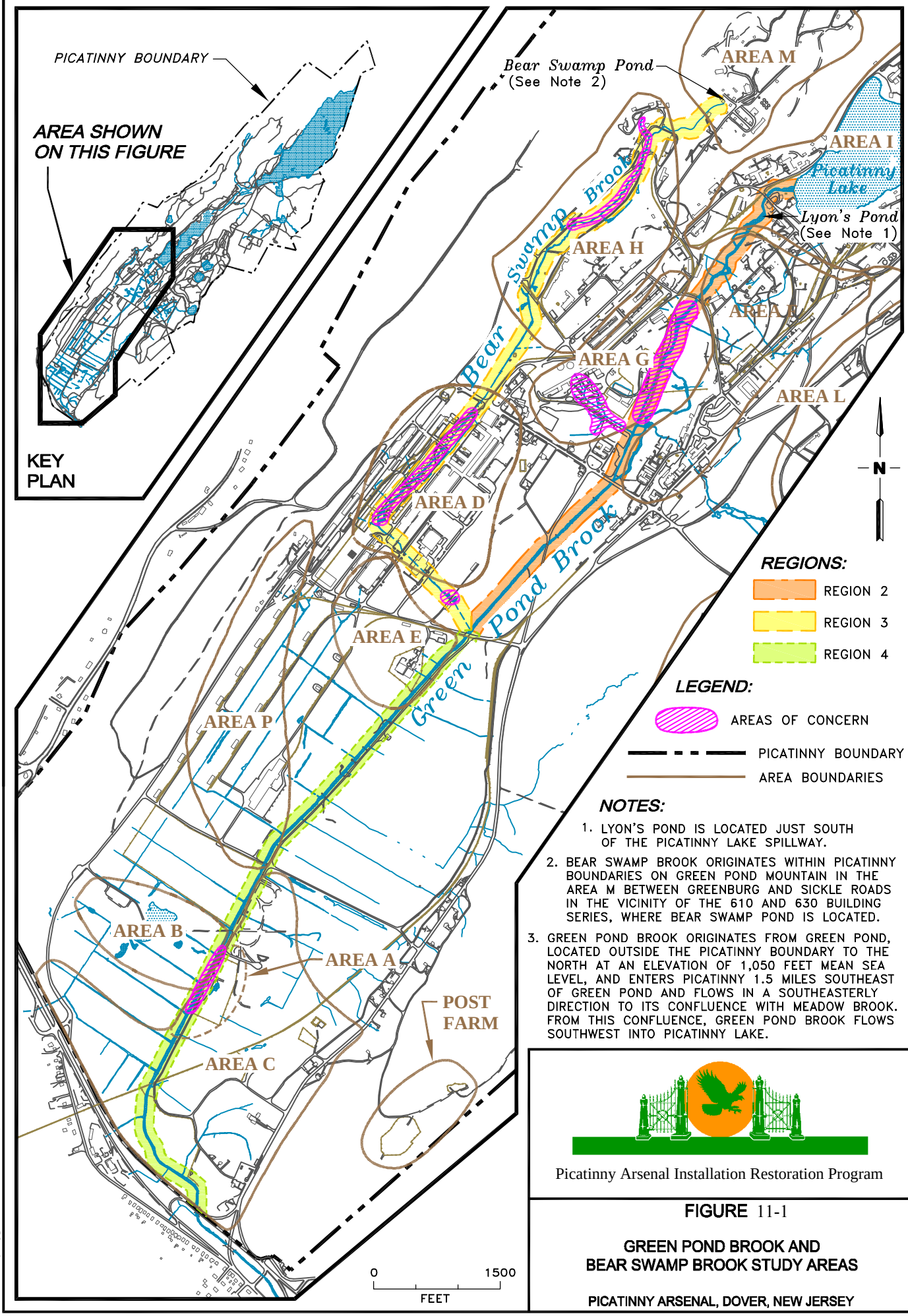
Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location
- LUC Area of Applicability
- LUC Sign Location

ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure 10-2
Site 180 (PICA-093)

\\lovetongis\GISdata\Federal\Northeast\NewJersey\Picatinny_RAO_LTM\MXD\LUC_Report\FigureSet_A.mxd



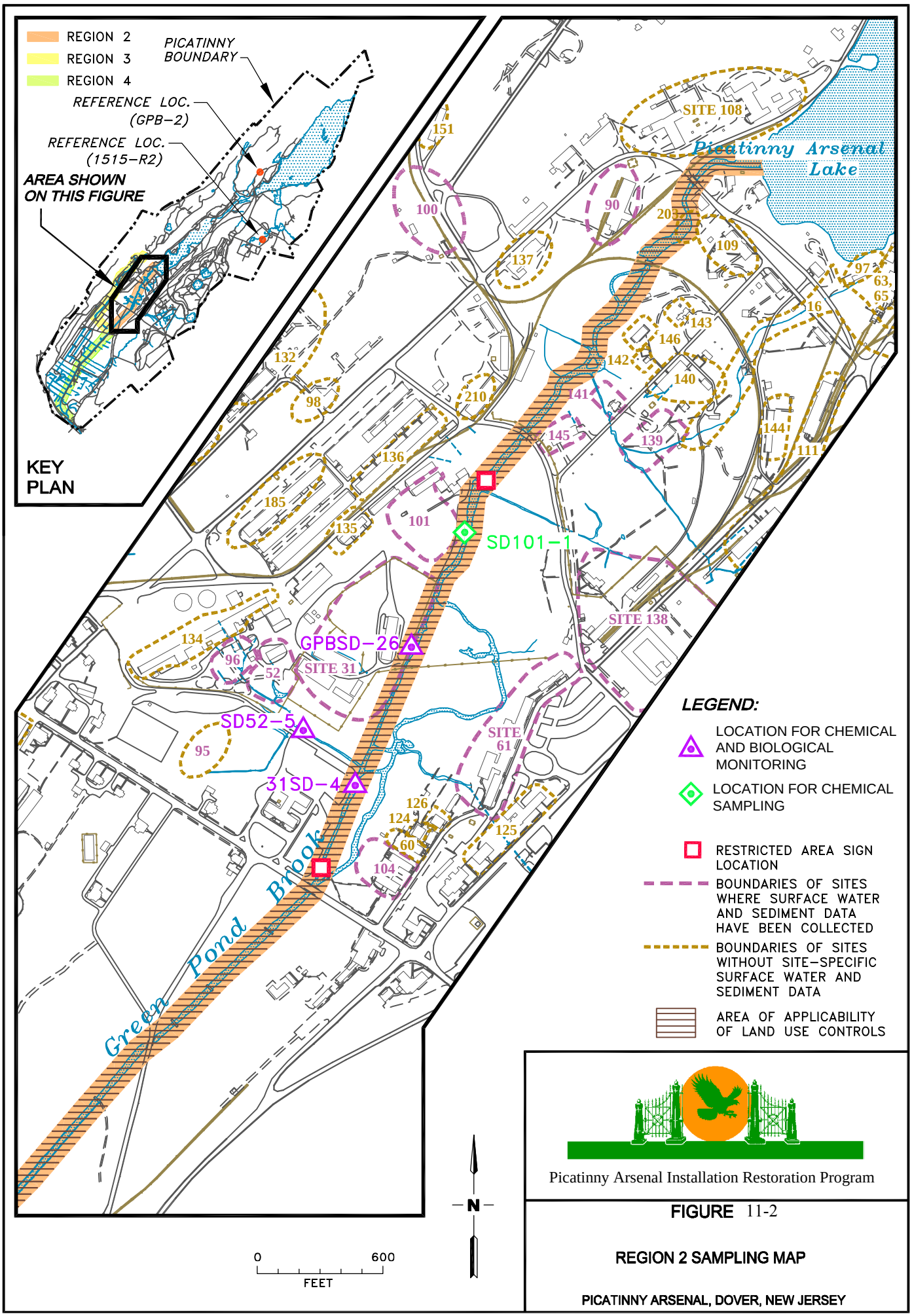
Picatinny Arsenal Installation Restoration Program

FIGURE 11-1

GREEN POND BROOK AND BEAR SWAMP BROOK STUDY AREAS

PICATINNY ARSENAL, DOVER, NEW JERSEY

Plotted By: jgoforth Plot Date/Time: Jun 21, 2010 – 11:51am File: G:\Prjcts\Picatinny\DRAWINGS\Pica 193\Balt Fig 1.dwg



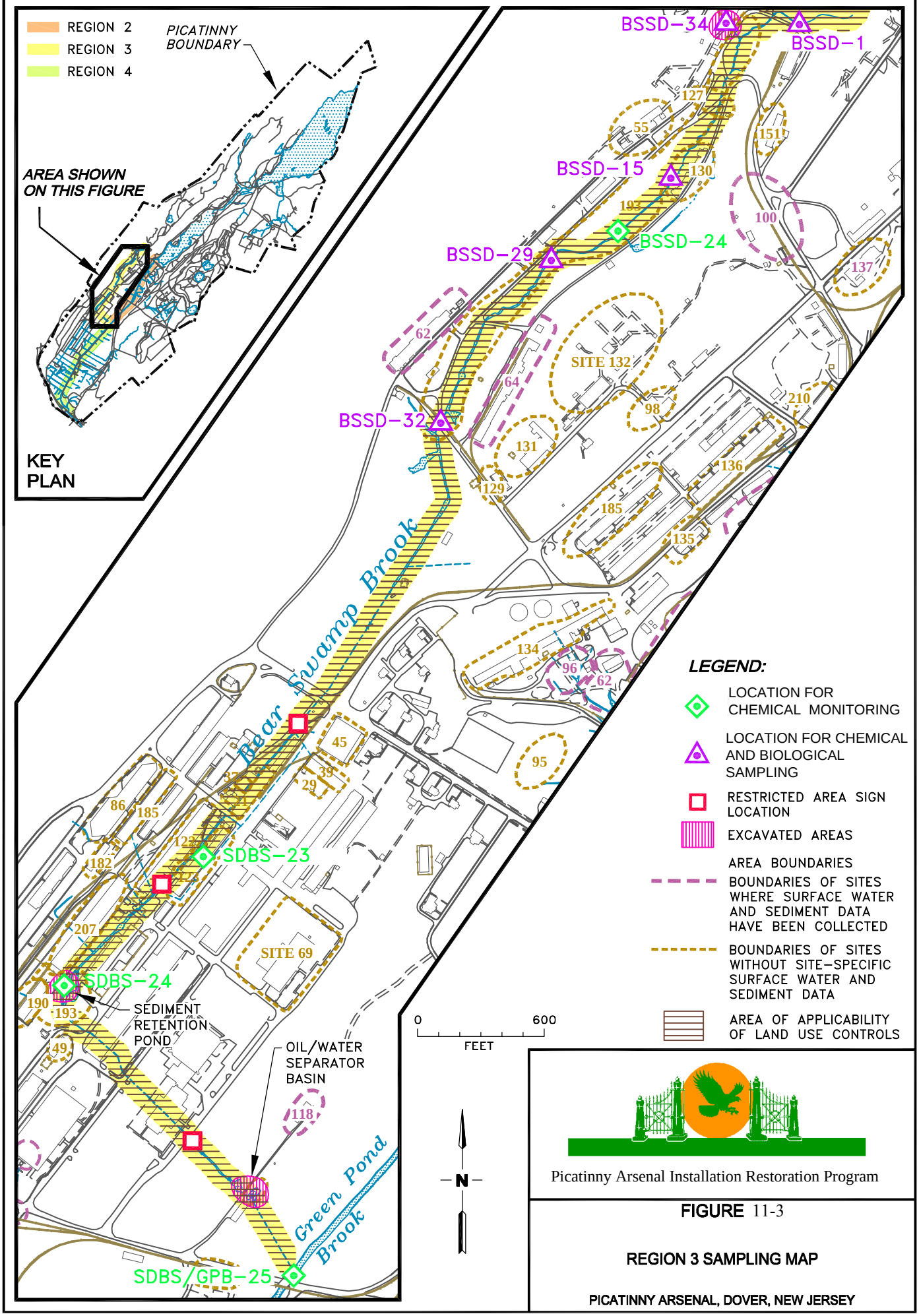
Picatinny Arsenal Installation Restoration Program

FIGURE 11-2

REGION 2 SAMPLING MAP

PICATINNY ARSENAL, DOVER, NEW JERSEY

Plotted By: jgoforth Plot Date/Time: Jun 21, 2010 – 11:48am File: G:\Prjcts\Picatinny\DRAWINGS\Pica 193\Balt-edits-Figures 3-1, 2, 3.dwg



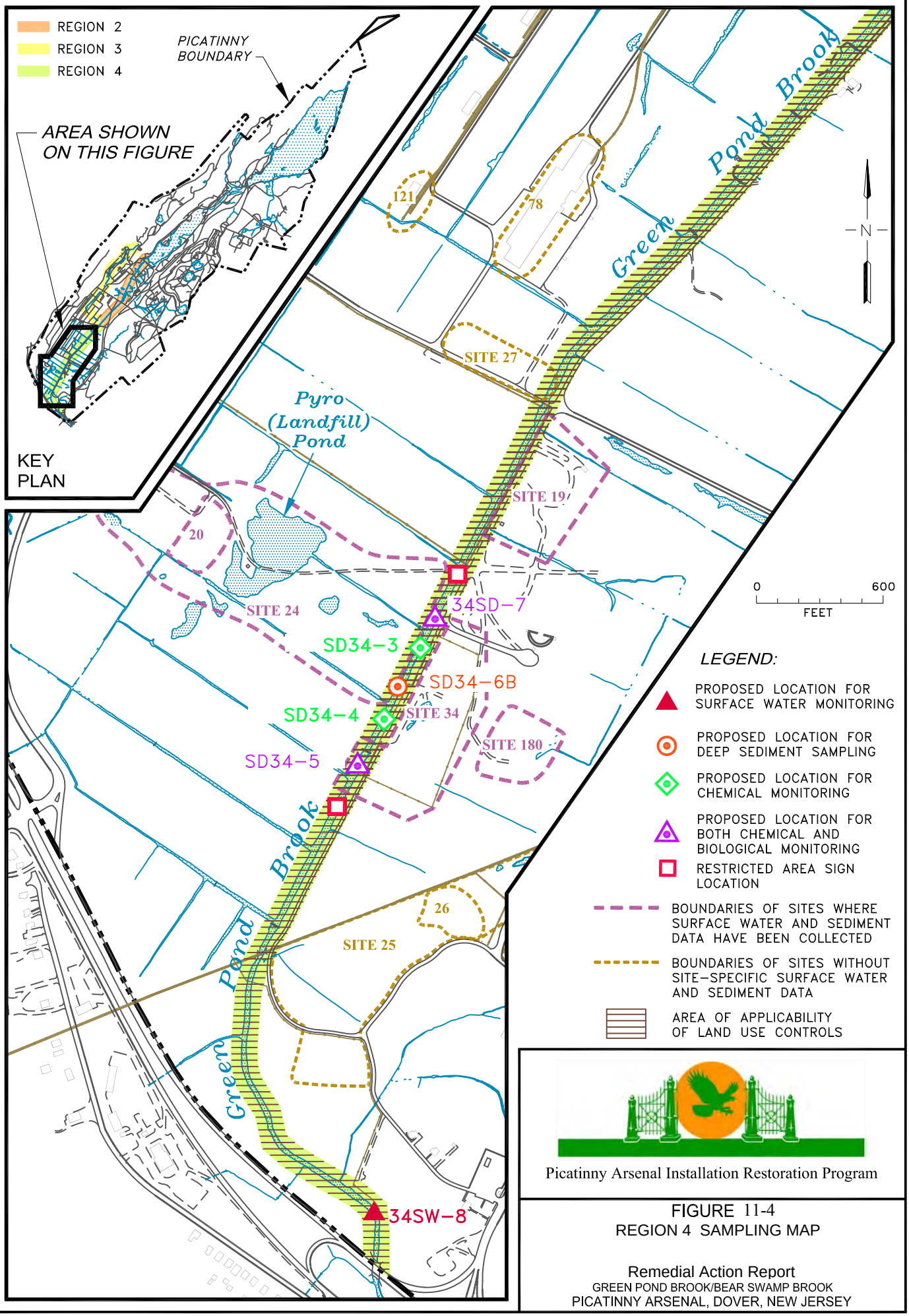
Picatinny Arsenal Installation Restoration Program

FIGURE 11-3

REGION 3 SAMPLING MAP

PICATINNY ARSENAL, DOVER, NEW JERSEY

Plotted By: jgoforth Plot Date/Time: Jun 21, 2010 – 11:49am File: G:\Prjcts\Picatinny\DRAWINGS\Pica 193\Balt-edits-Figures 3-1, 2, 3.dwg



Picatinny Arsenal Installation Restoration Program

FIGURE 11-4
REGION 4 SAMPLING MAP

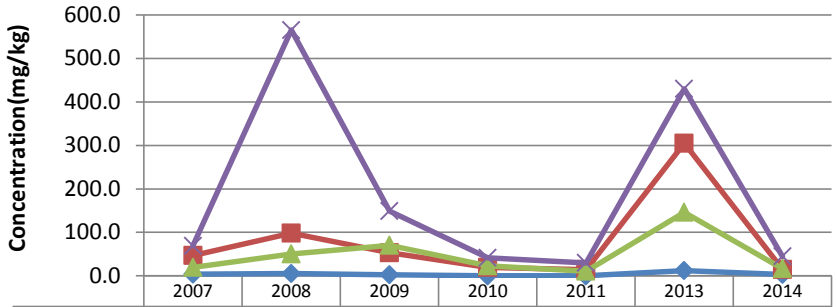
Remedial Action Report
GREEN POND BROOK/BEAR SWAMP BROOK
PICATINNY ARSENAL, DOVER, NEW JERSEY

DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
S. Wiafe 02/20/07	D. Schicho 02/20/07	G. Maresca 02/20/07	GPB-BSB-Remalts.dwg

File: G:\Prjcts\Picatinny\DRAWINGS\Pica 193\ORIGINAL-Figures 3-1, 2, 3.dwg
Plot Date/Time: May 05, 2008 - 11:58am
Plotted By: jgoforth

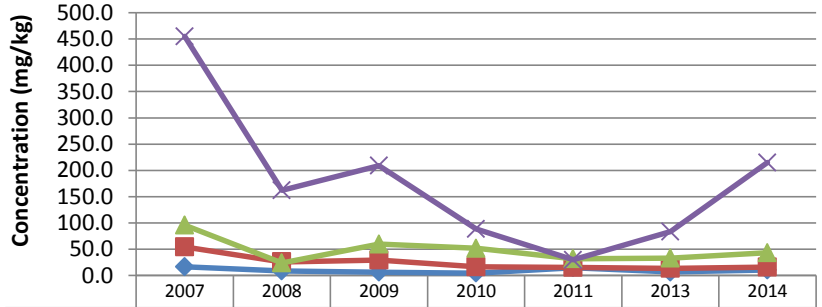
Appendix B-1. Region 2 Data Trend Plots - Metals
Annual Surface Water and Sediment Monitoring Report
Green Pond Brook/Bear Swamp Brook (PICA-193)
Picatinny Arsenal, New Jersey

Metals in Sediments at 31SD-4



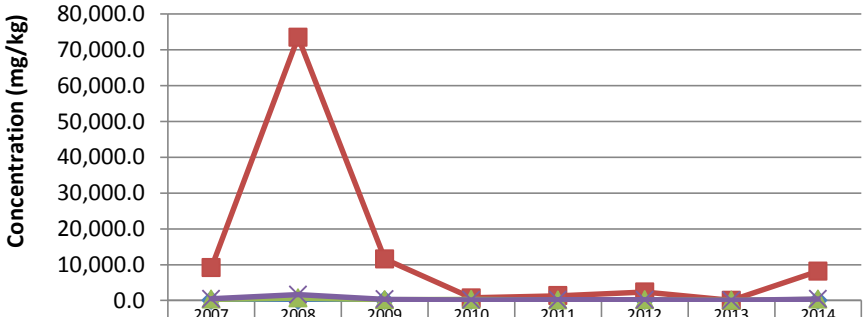
	2007	2008	2009	2010	2011	2013	2014
Arsenic	3.8	5.5	2.6	0.0	0.0	12.1	3.1
Copper	46.7	98.2	53.3	19.6	14.5	305.0	14.9
Lead	19.3	50.6	70.1	22.8	10.8	146.0	16.8
Zinc	68.8	565.0	149.0	41.8	29.5	430.0	44.6

Metals in Sediments at SD52-5



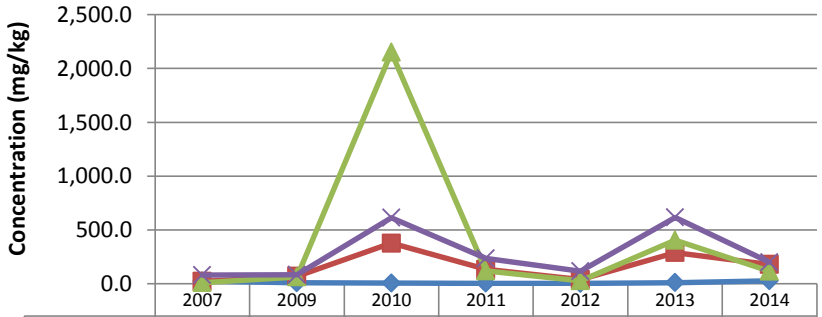
	2007	2008	2009	2010	2011	2013	2014
Arsenic	16.9	8.8	6.3	4.6	14.9	6.6	10.3
Copper	54.3	26.0	29.5	16.9	15.4	13.7	16.2
Lead	95.8	24.2	59.7	52.0	31.8	33.1	43.2
Zinc	455.0	162.0	209.0	88.4	29.8	83.4	215.0

Metals in Sediments at GPBSD-26



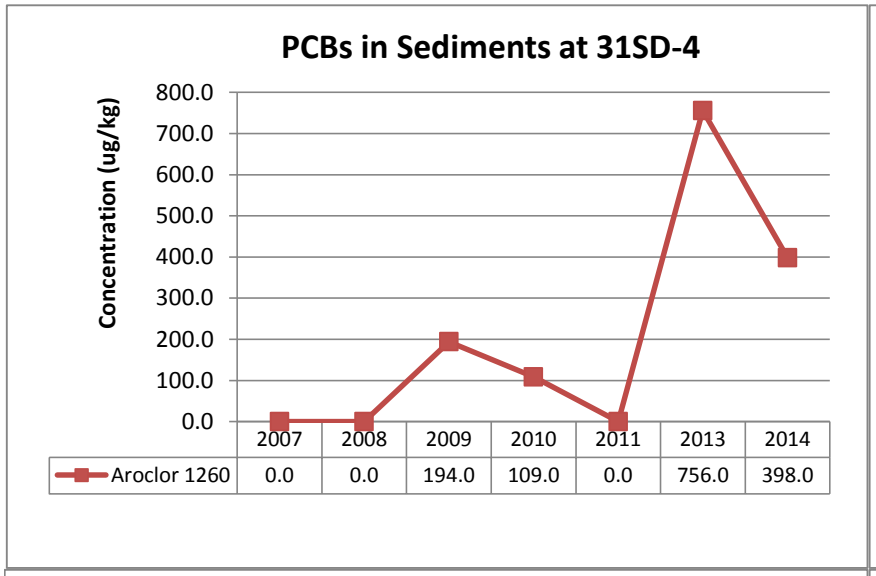
	2007	2008	2009	2010	2011	2012	2013	2014
Arsenic	4.1	7.8	1.8	24.1	1.9	3.2	7.9	4.1
Copper	9,160.0	73,500.0	11,600.0	724.0	1,330.0	2,350.0	51.4	8,130.0
Lead	341.0	672.0	193.0	277.0	120.0	216.0	16.3	319.0
Zinc	475.0	1640.0	342.0	169.0	227.0	209.0	35.8	417.0

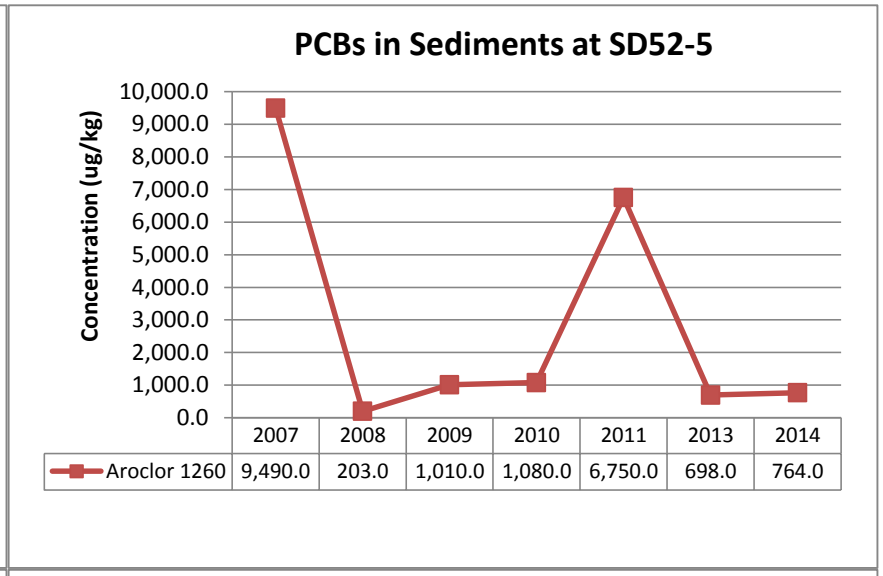
Metals in Sediments at SD101-1

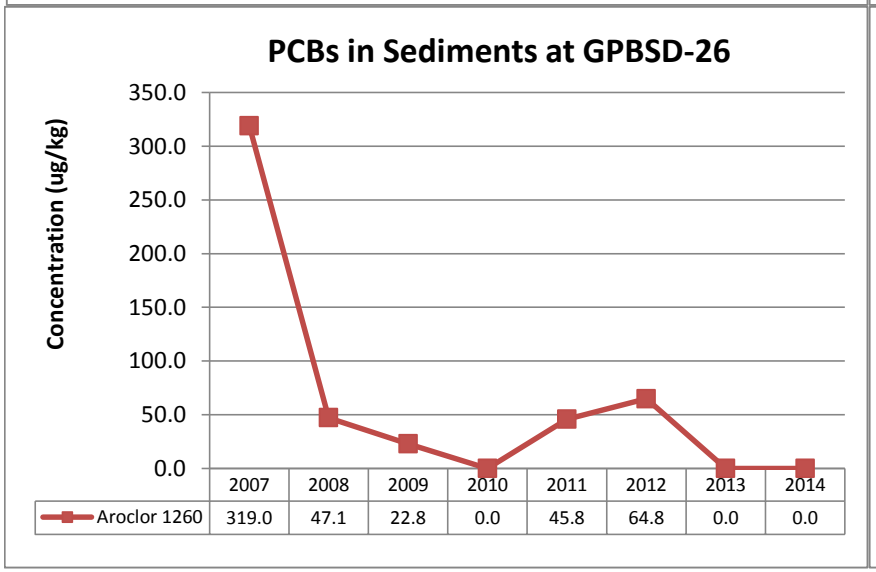


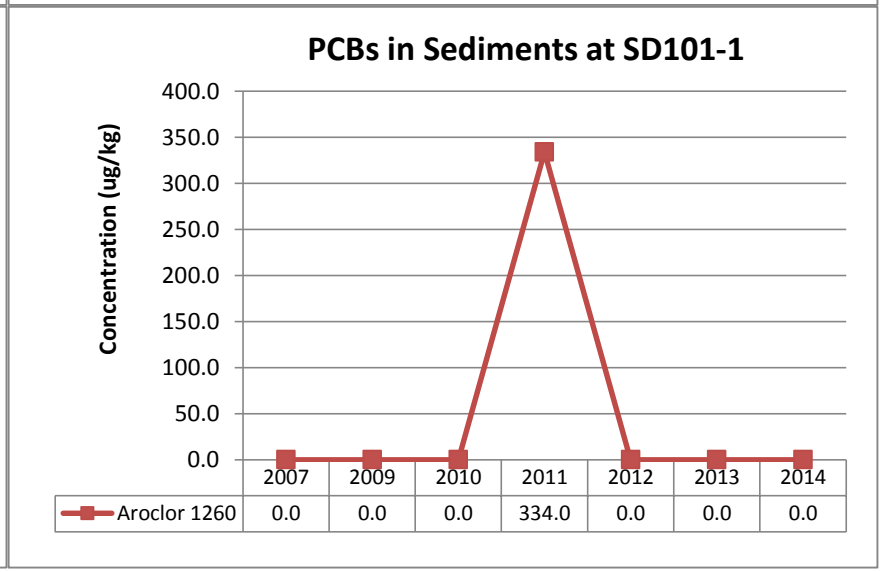
	2007	2009	2010	2011	2012	2013	2014
Arsenic	25.0	10.0	5.9	5.5	3.9	11.2	28.3
Copper	23.2	69.2	378.0	135.0	39.0	290.0	180.0
Lead	11.1	63.3	2,150.0	120.0	29.4	405.0	117.0
Zinc	81.0	85.0	614.0	236.0	118.0	616.0	199.0

Appendix B-1. Region 2 Data Trend Plots - Polychlorinated Biphenyls (PCBs)
Annual Surface Water and Sediment Monitoring Report
Green Pond Brook/Bear Swamp Brook (PICA-193)
Picatinny Arsenal, New Jersey

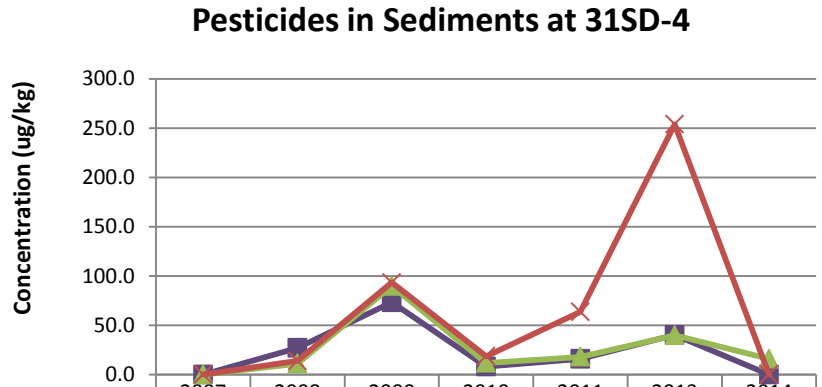




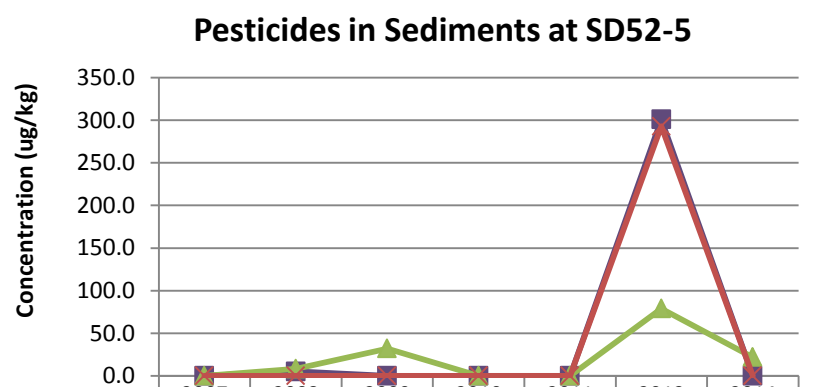




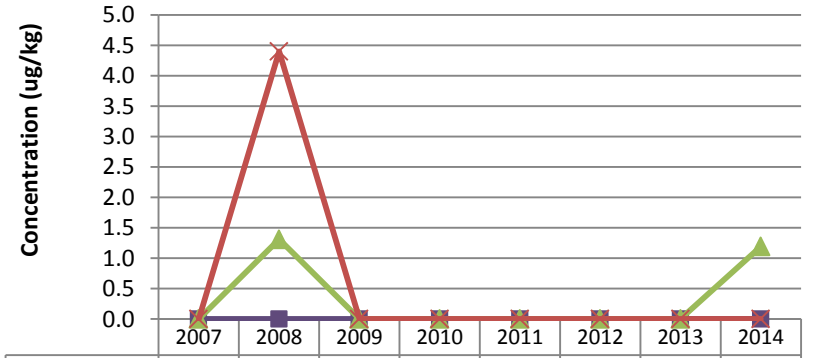
Appendix B-1. Region 2 Data Trend Plots - Pesticides
Annual Surface Water and Sediment Monitoring Report
Green Pond Brook/Bear Swamp Brook (PICA-193)
Picatinny Arsenal, New Jersey



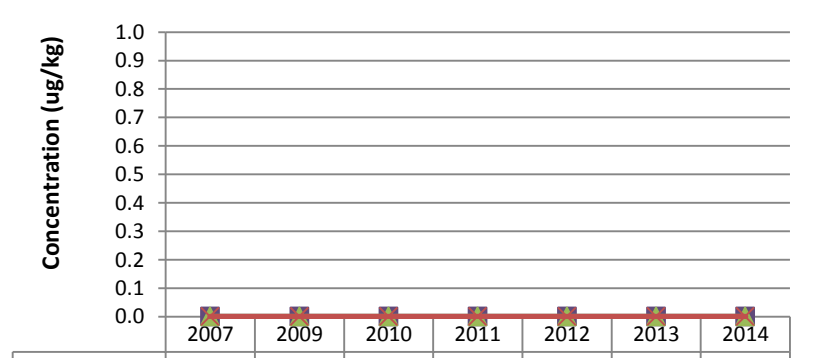
	2007	2008	2009	2010	2011	2013	2014
4,4'-DDD	0.0	27.1	73.3	8.1	16.1	40.3	0.0
4,4'-DDE	0.0	11.2	89.9	11.8	18.1	40.0	15.9
4,4'-DDT	0.0	13.9	93.4	18.7	63.8	254.0	0.0



	2007	2008	2009	2010	2011	2013	2014
4,4'-DDD	0.0	5.2	0.0	0.0	0.0	301.0	0.0
4,4'-DDE	0.0	8.2	32.0	0.0	0.0	78.9	21.9
4,4'-DDT	0.0	0.0	0.0	0.0	0.0	293.0	0.0



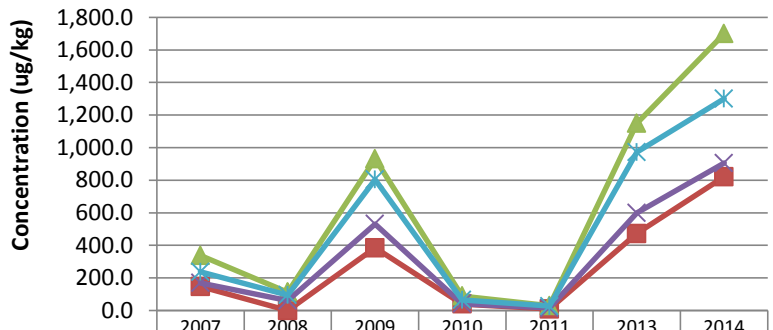
	2007	2008	2009	2010	2011	2012	2013	2014
4,4'-DDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4,4'-DDE	0.0	1.3	0.0	0.0	0.0	0.0	0.0	1.19
4,4'-DDT	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0



	2007	2009	2010	2011	2012	2013	2014
4,4'-DDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4,4'-DDE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4,4'-DDT	0.0	0.0	0.0	0.0	0.0	0.0	0.0

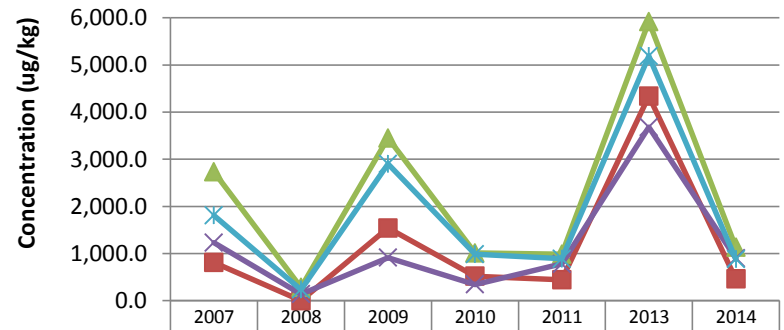
Appendix B-1. Region 2 Data Trend Plots - Semivolatile Organic Compounds (SVOCs)
Annual Surface Water and Sediment Monitoring Report
Green Pond Brook/Bear Swamp Brook (PICA-193)
Picatinny Arsenal, New Jersey

SVOCs in Sediments at 31SD-4



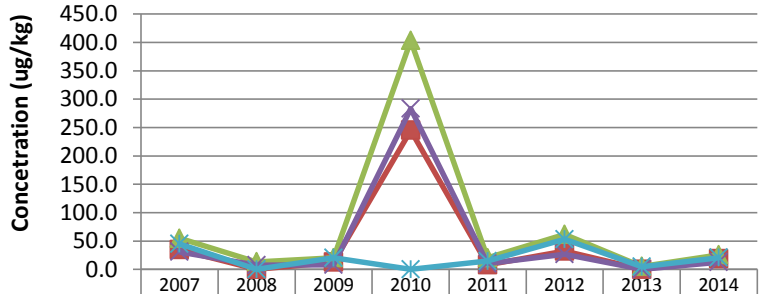
	2007	2008	2009	2010	2011	2013	2014
Benz(a)anthracene	147.0	0.0	385.0	40.1	9.6	473.0	821.0
Fluoranthene	338.0	113.0	932.0	89.2	28.9	1,150.0	1,700.0
Phenanthrene	169.0	61.9	531.0	42.1	15.2	599.0	906.0
Pyrene	237.0	94.6	804.0	65.3	26.9	972.0	1,300.0

SVOCs in Sediments at SD52-5



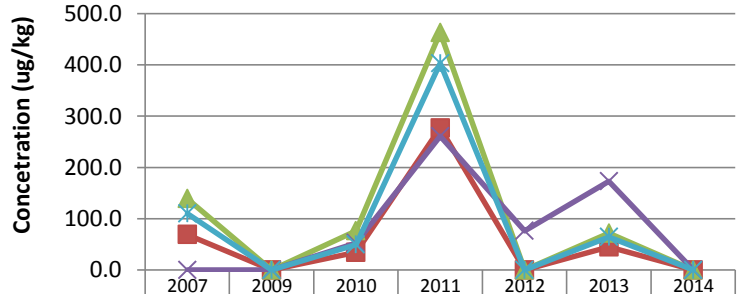
	2007	2008	2009	2010	2011	2013	2014
Benz(a)anthracene	807.0	0.0	1,540.0	520.0	443.0	4,340.0	459.0
Fluoranthene	2,730.0	279.0	3,450.0	1,010.0	984.0	5,920.0	1,130.0
Phenanthrene	1,230.0	136.0	910.0	344.0	779.0	3,680.0	899.0
Pyrene	1,810.0	234.0	2,900.0	986.0	889.0	5,190.0	879.0

SVOCs in Sediments at GPBSD-26



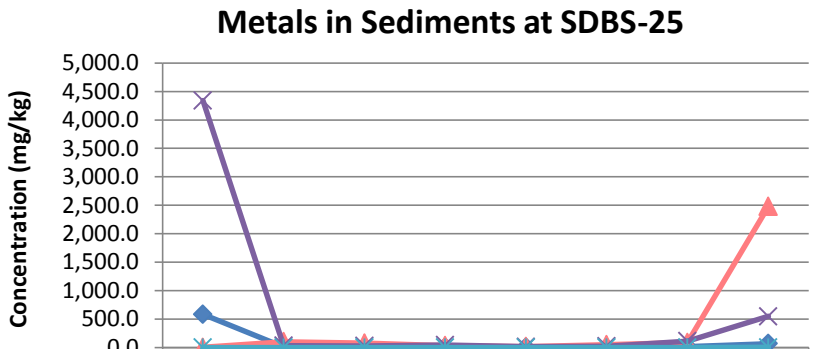
	2007	2008	2009	2010	2011	2012	2013	2014
Benz(a)anthracene	34.7	0.0	12.6	245.0	8.2	32.1	0.0	18.6
Fluoranthene	54.7	13.0	20.2	403.0	20.3	61.4	5.0	25.6
Phenanthrene	30.7	7.5	7.9	283.0	10.3	26.4	0.0	12.8
Pyrene	44.8	0.0	20.2	0.0	14.6	53.1	4.4	20.5

SVOCs in Sediments at SD101-1

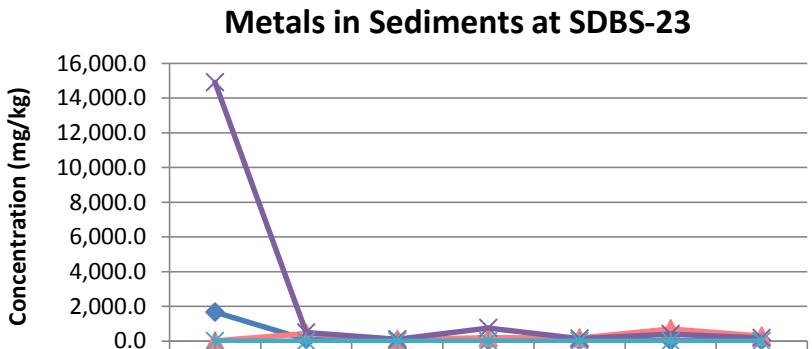


	2007	2009	2010	2011	2012	2013	2014
Benz(a)anthracene	69.1	0.0	34.4	277.0	0.0	44.9	0.0
Fluoranthene	139.0	0.0	76.2	463.0	0.0	71.7	0.0
Phenanthrene	0.0	0.0	52.7	261.0	76.5	173.0	0.0
Pyrene	110.0	0.0	49.7	403.0	0.0	64.7	0.0

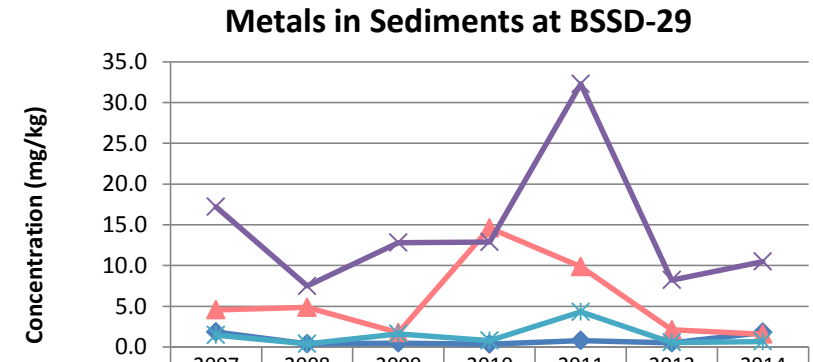
Appendix B-2. Region 3 Data Trend Plots - Metals
Annual Surface Water and Sediment Monitoring Report
Green Pond Brook/Bear Swamp Brook (PICA-193)
Picatinny Arsenal, New Jersey



	2007	2008	2009	2010	2011	2012	2013	2014
Cadmium	584.0	10.8	5.9	3.3	5.0	1.8	13.7	67.8
Chromium	1.6	101.0	74.6	31.4	16.3	46.8	86.0	2,480.0
Copper	4,340.0	30.9	24.6	40.4	12.0	20.4	111.0	547.0
Mercury	0.0	0.1	0.1	0.3	0.2	0.3	0.3	1.1

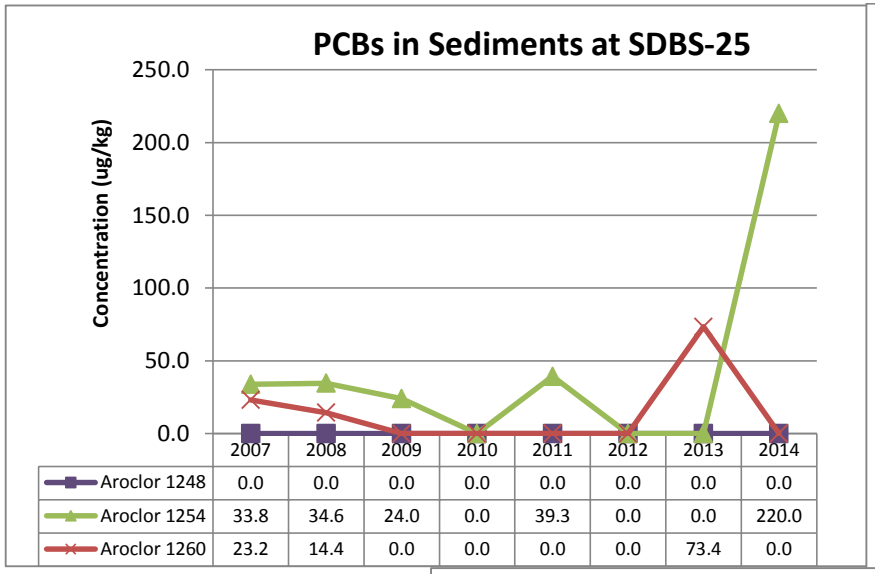


	2007	2008	2009	2010	2011	2013	2014
Cadmium	1,670.0	96.3	7.9	28.2	14.9	27.6	40.9
Chromium	7.6	445.0	97.7	202.0	177.0	699.0	284.0
Copper	14,900.0	491.0	100.0	752.0	148.0	407.0	181.0
Mercury	0.7	0.8	0.8	0.8	0.9	1.6	1.2

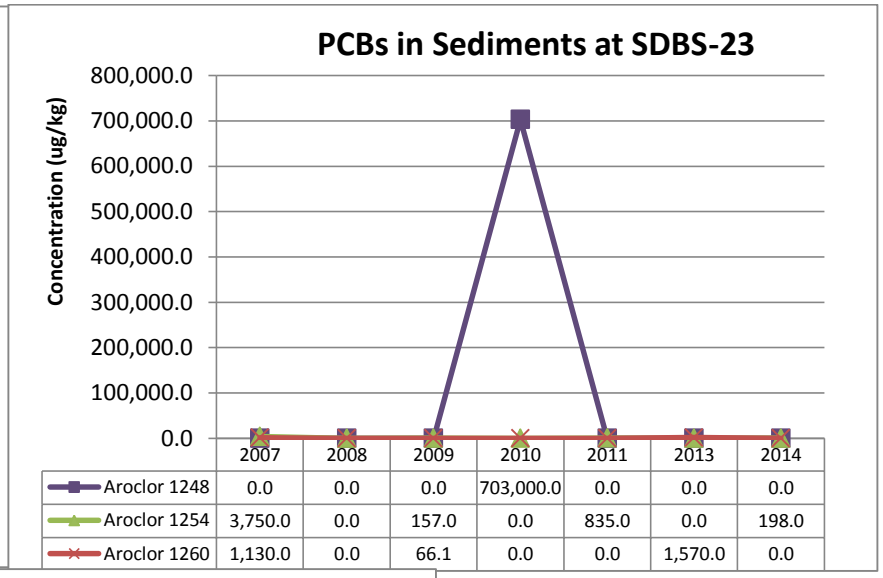


	2007	2008	2009	2010	2011	2013	2014
Cadmium	1.9	0.4	0.5	0.3	0.8	0.5	1.8
Chromium	4.6	4.9	1.8	14.6	9.9	2.1	1.6
Copper	17.2	7.5	12.8	12.9	32.3	8.2	10.5
Mercury	1.5	0.4	1.6	0.8	4.3	0.6	0.7

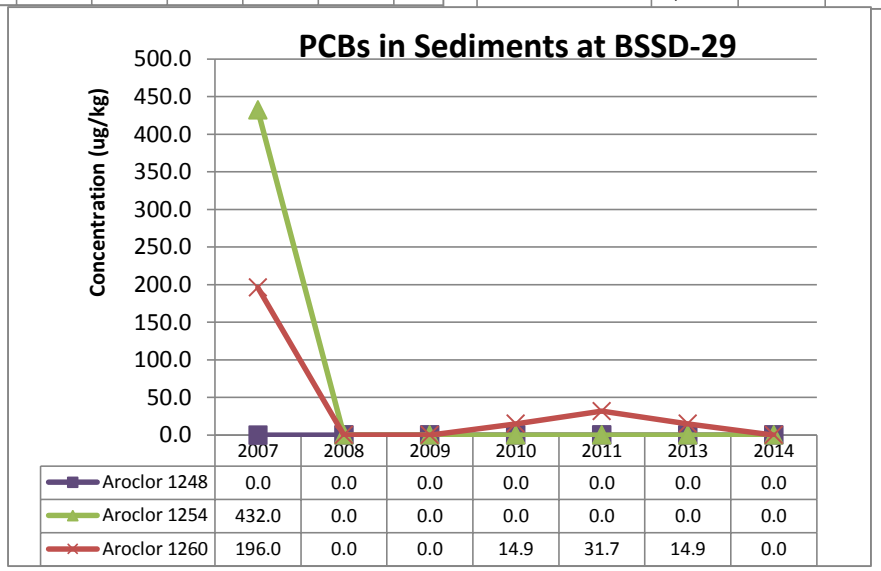
Appendix B-2. Region 3 Data Trend Plots - Polychlorinated Biphenyls (PCBs)
Annual Surface Water and Sediment Monitoring Report
Green Pond Brook/Bear Swamp Brook (PICA-193)
Picatinny Arsenal, New Jersey



	2007	2008	2009	2010	2011	2012	2013	2014
Aroclor 1248	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aroclor 1254	33.8	34.6	24.0	0.0	39.3	0.0	0.0	220.0
Aroclor 1260	23.2	14.4	0.0	0.0	0.0	0.0	73.4	0.0

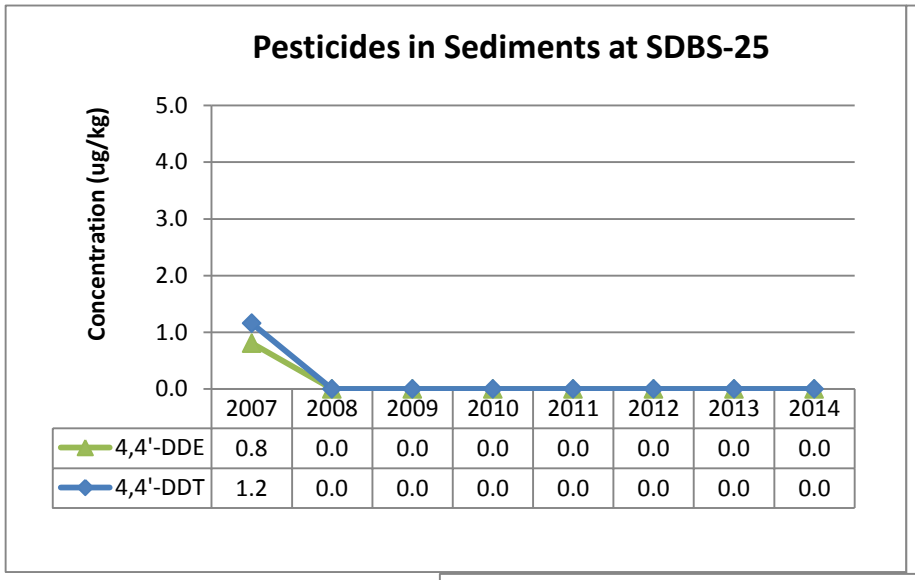


	2007	2008	2009	2010	2011	2013	2014
Aroclor 1248	0.0	0.0	0.0	703,000.0	0.0	0.0	0.0
Aroclor 1254	3,750.0	0.0	157.0	0.0	835.0	0.0	198.0
Aroclor 1260	1,130.0	0.0	66.1	0.0	0.0	1,570.0	0.0

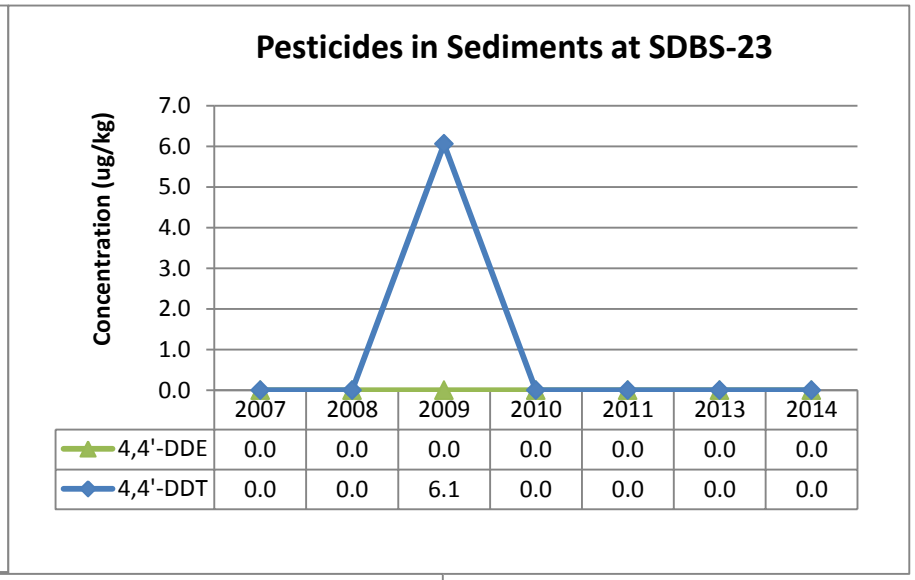


	2007	2008	2009	2010	2011	2013	2014
Aroclor 1248	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aroclor 1254	432.0	0.0	0.0	0.0	0.0	0.0	0.0
Aroclor 1260	196.0	0.0	0.0	14.9	31.7	14.9	0.0

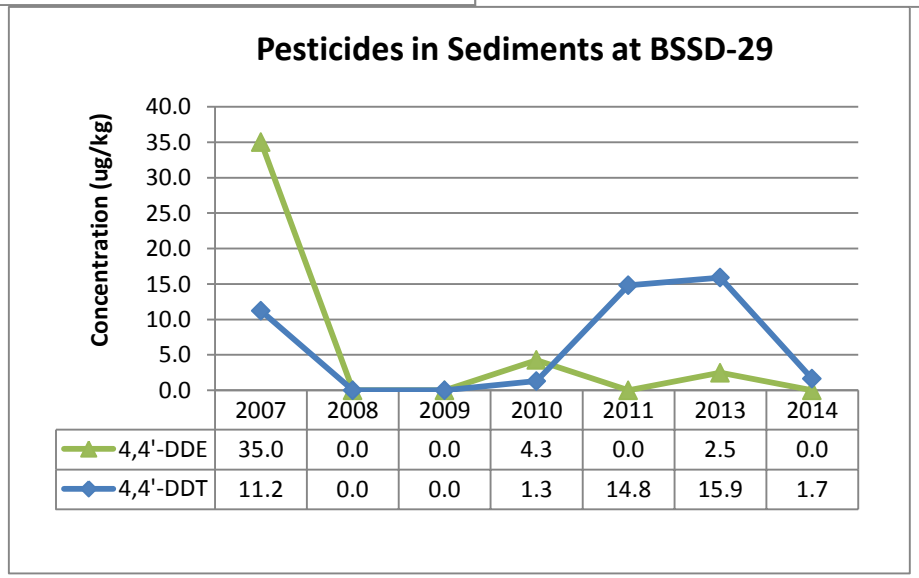
Appendix B-2. Region 3 Data Trend Plots - Pesticides
Annual Surface Water and Sediment Monitoring Report
Green Pond Brook/Bear Swamp Brook (PICA-193)
Picatinny Arsenal, New Jersey



	2007	2008	2009	2010	2011	2012	2013	2014
4,4'-DDE	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4,4'-DDT	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

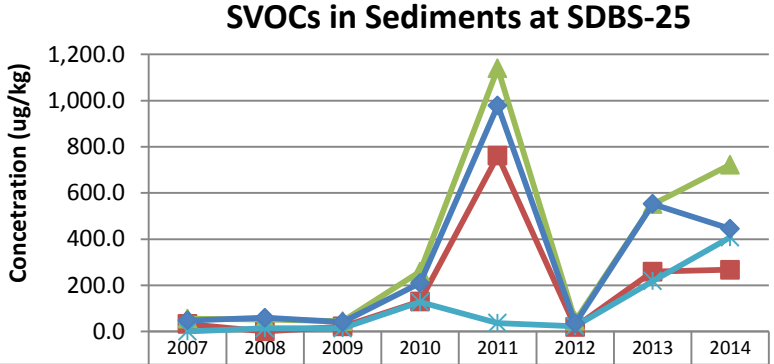


	2007	2008	2009	2010	2011	2013	2014
4,4'-DDE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4,4'-DDT	0.0	0.0	6.1	0.0	0.0	0.0	0.0

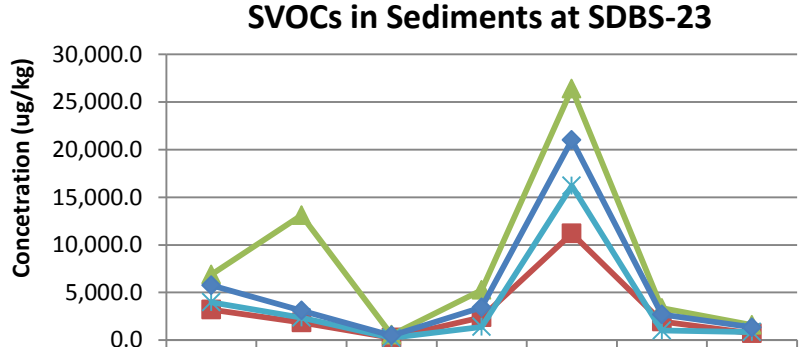


	2007	2008	2009	2010	2011	2013	2014
4,4'-DDE	35.0	0.0	0.0	4.3	0.0	2.5	0.0
4,4'-DDT	11.2	0.0	0.0	1.3	14.8	15.9	1.7

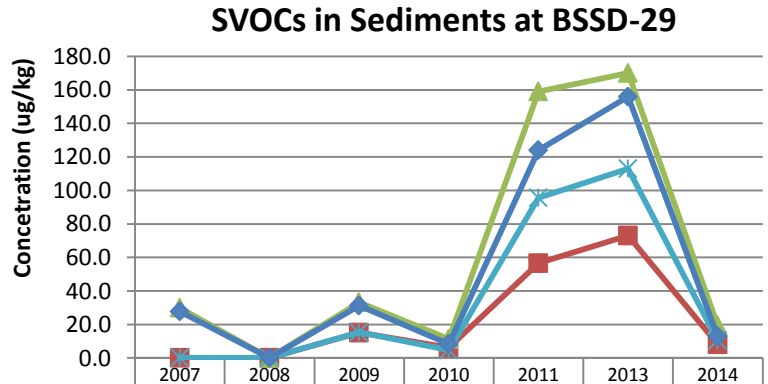
Appendix B-2. Region 3 Data Trend Plots - Semivolatile Organic Compounds (SVOCs)
Annual Surface Water and Sediment Monitoring Report
Green Pond Brook/Bear Swamp Brook (PICA-193)
Picatinny Arsenal, New Jersey



	2007	2008	2009	2010	2011	2012	2013	2014
Benz(a)anthracene	31.9	0.0	20.9	130.0	761.0	18.9	259.0	267.0
Fluoranthene	55.2	52.0	44.1	259.0	1,140.0	45.5	551.0	722.0
Phenanthrene	0.0	13.4	14.0	127.0	36.2	23.0	218.0	408.0
Pyrene	47.7	59.4	40.1	209.0	979.0	34.3	552.0	445.0

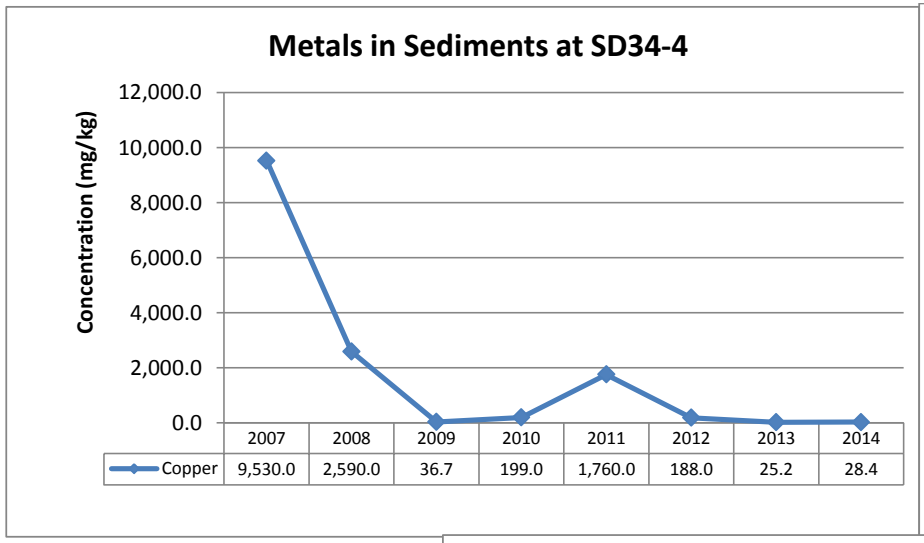


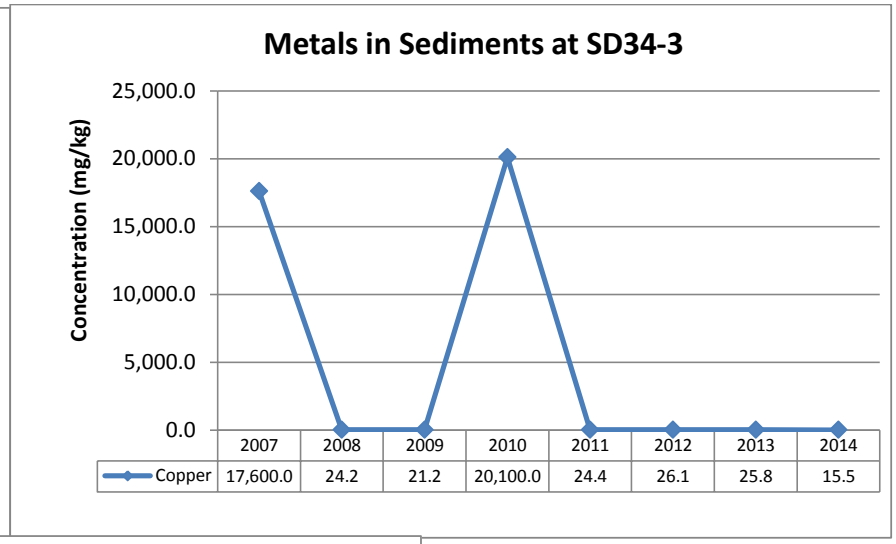
	2007	2008	2009	2010	2011	2013	2014
Benz(a)anthracene	3,210.0	1,840.0	251.0	2,390.0	11,200.0	1,950.0	714.0
Fluoranthene	6,880.0	13,100.0	546.0	5,260.0	26,400.0	3,370.0	1,590.0
Phenanthrene	3,970.0	2,350.0	222.0	1,380.0	16,200.0	1,020.0	838.0
Pyrene	5,750.0	3,100.0	485.0	3,430.0	21,000.0	2,700.0	1,330.0

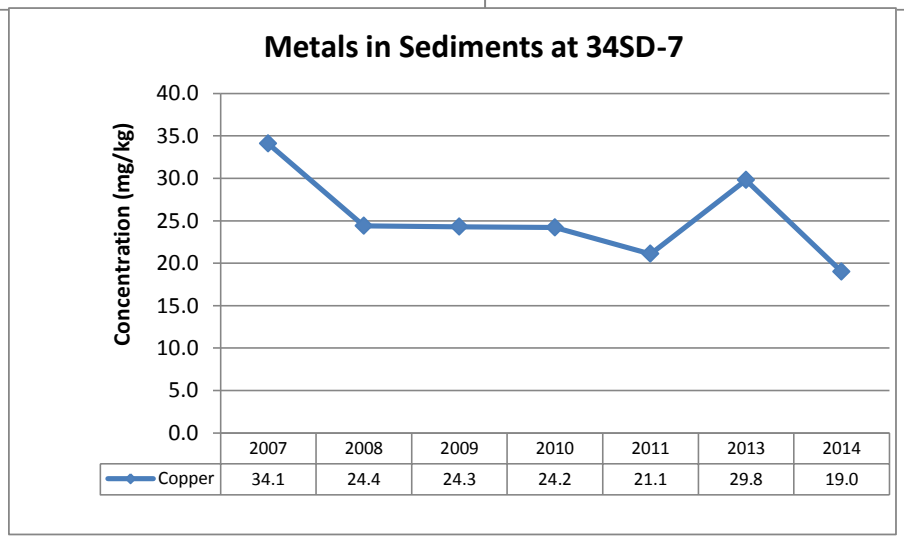


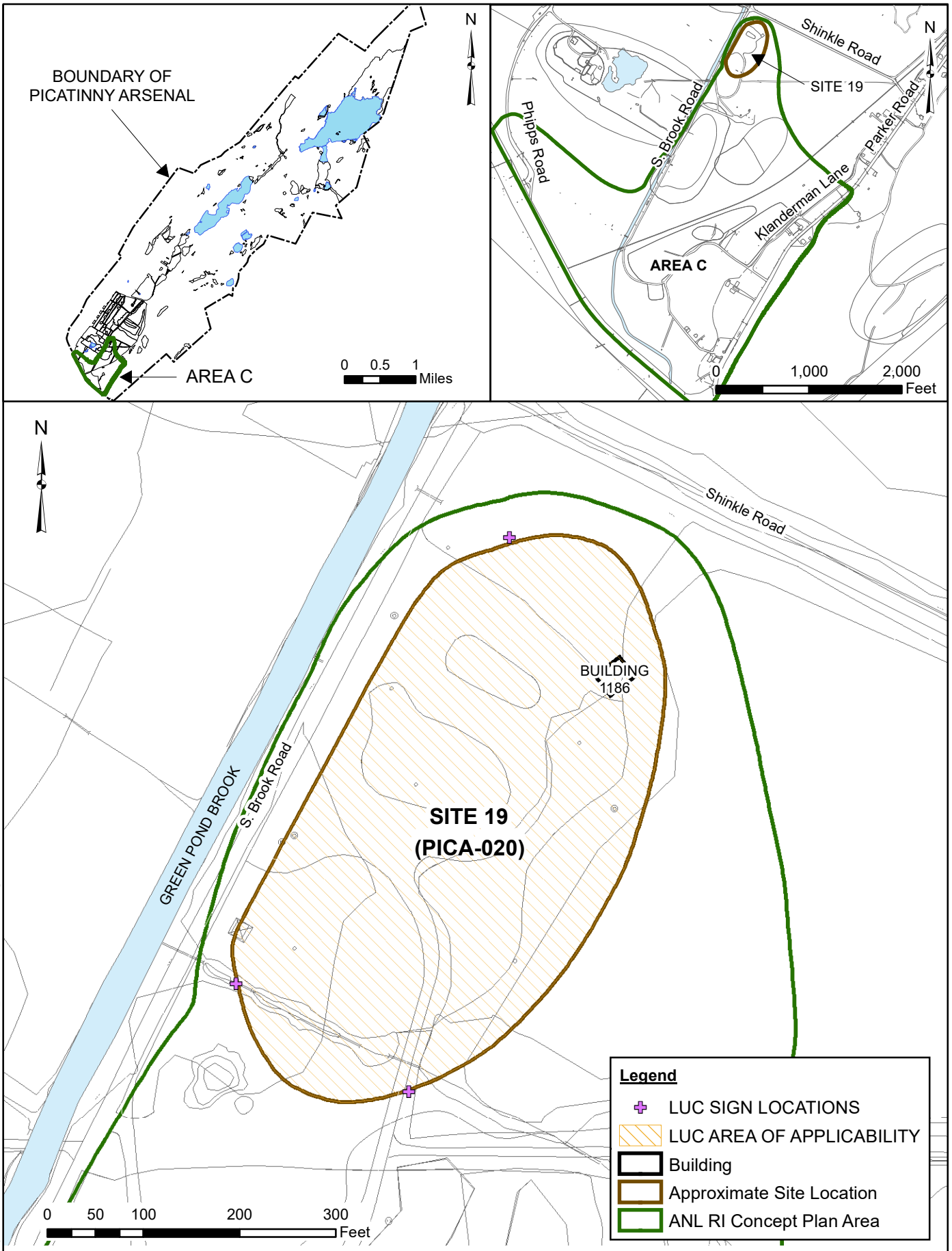
	2007	2008	2009	2010	2011	2013	2014
Benz(a)anthracene	0.0	0.0	15.2	6.2	56.6	73.0	8.1
Fluoranthene	29.9	0.0	33.2	11.3	159.0	170.0	19.4
Phenanthrene	0.0	0.0	15.3	4.6	95.6	113.0	10.5
Pyrene	27.8	0.0	31.2	8.3	124.0	156.0	12.9

Appendix B-3. Region 4 Data Trend Plots - Metals
Annual Surface Water and Sediment Monitoring Report
Green Pond Brook/Bear Swamp Brook (PICA-193)
Picatinny Arsenal, New Jersey









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LAYOUT OF LUC AREA SITE 19 (PICA-020)
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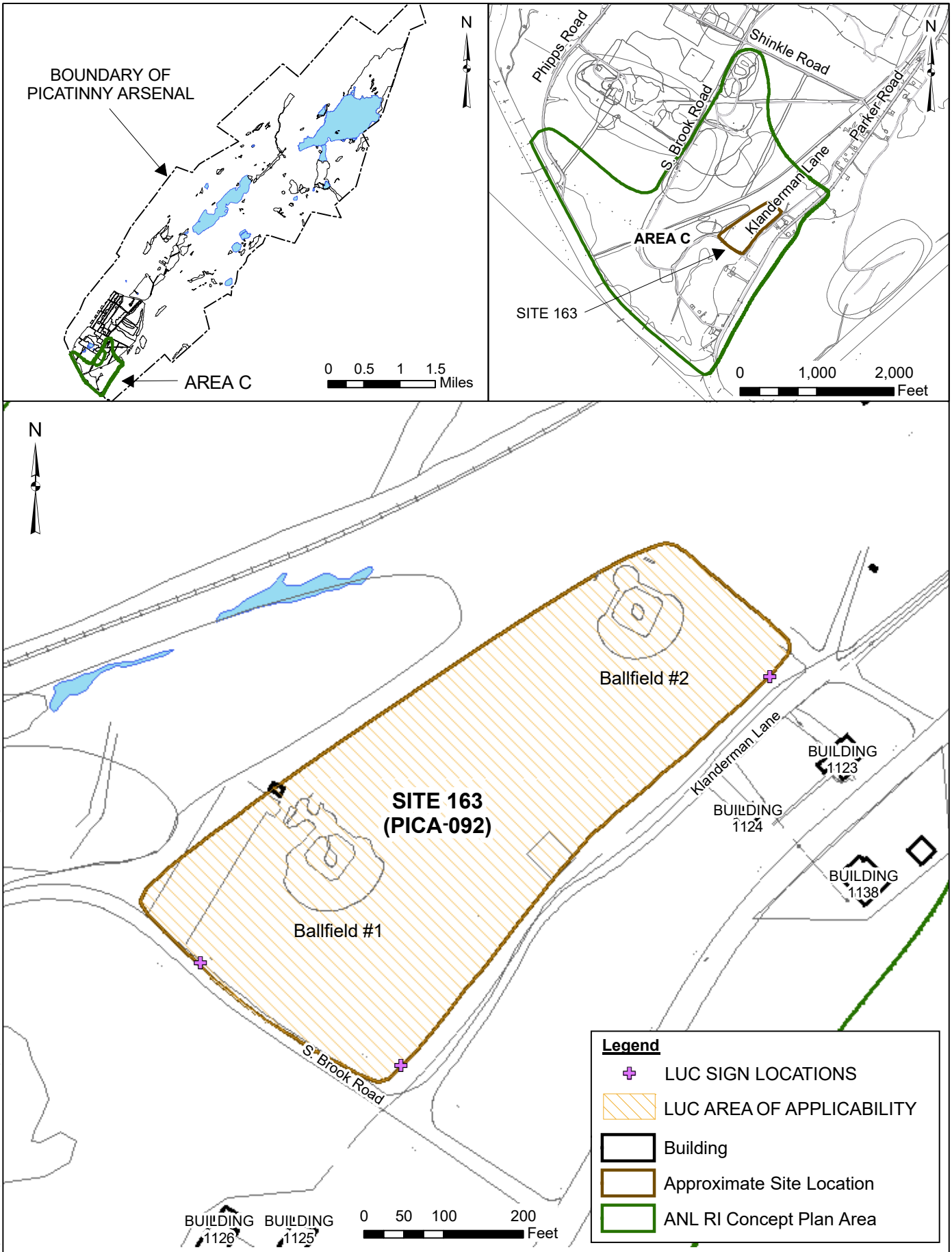
PROJECT MANAGER T.LLEWELLYN
DEPARTMENT MANAGER B. WHITE
DRAWN M. GRESS
CHECKED V. MYERS
PROJECT NUMBER GP06PICA.LM12.LUC12
FIGURE **12-1**



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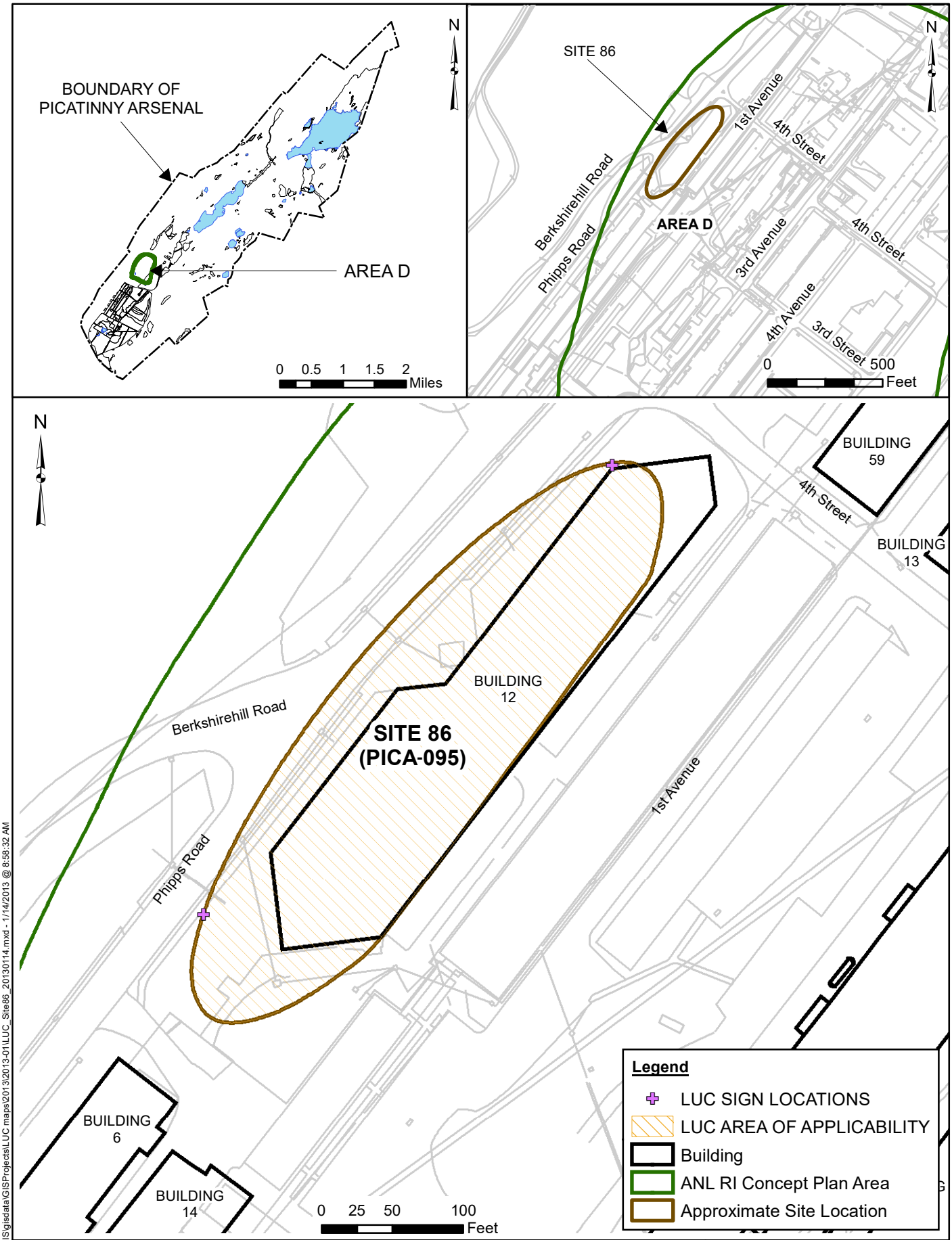
DRAWN M. GRESS	CHECKED K. BEIER
PROJECT NUMBER GP06PICA.P020.NJ001	FIGURE 12-2



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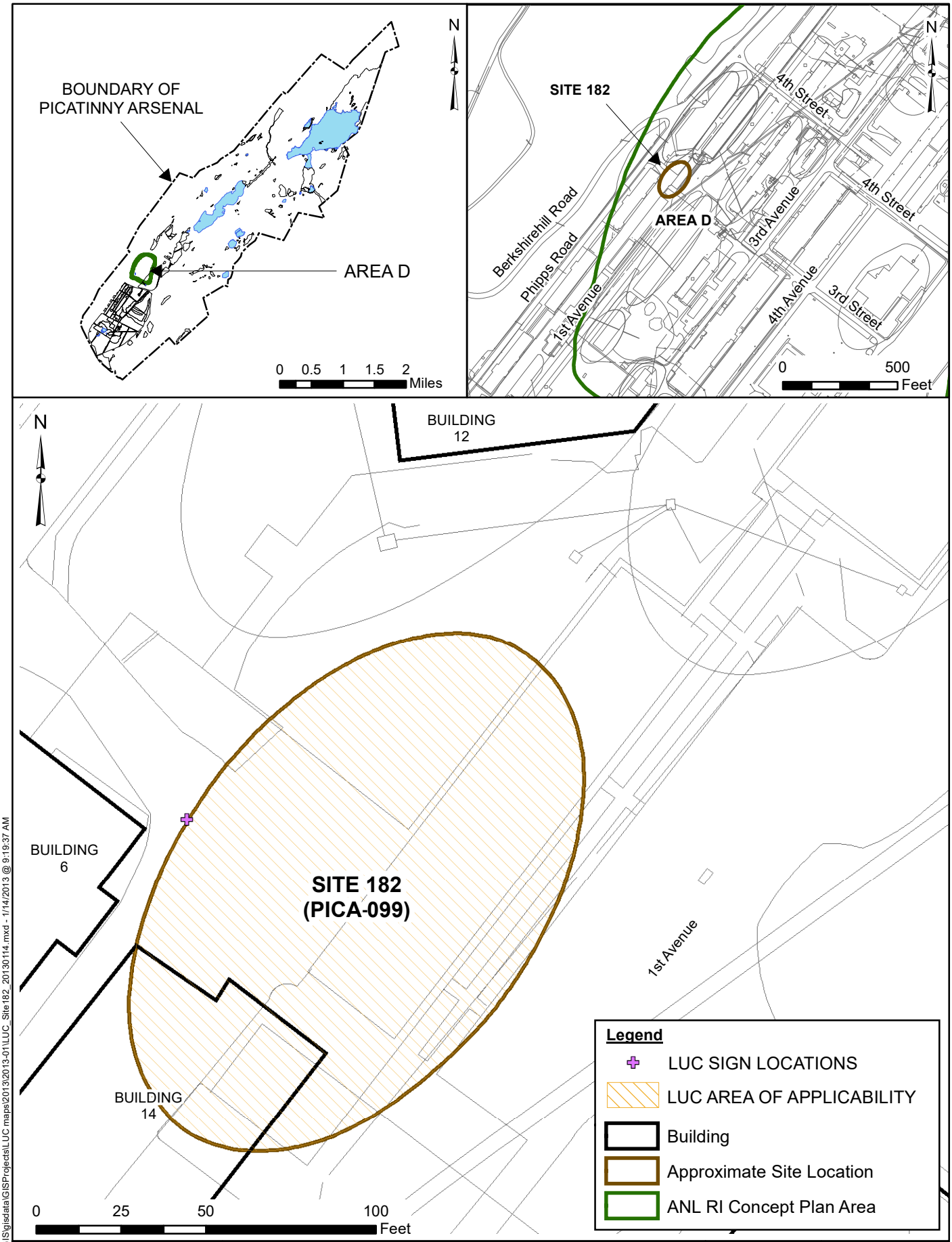
DRAWN M.GRESS	CHECKED V. MYERS
PROJECT NUMBER GP06PICA.LM12.LUC12	FIGURE 12-3



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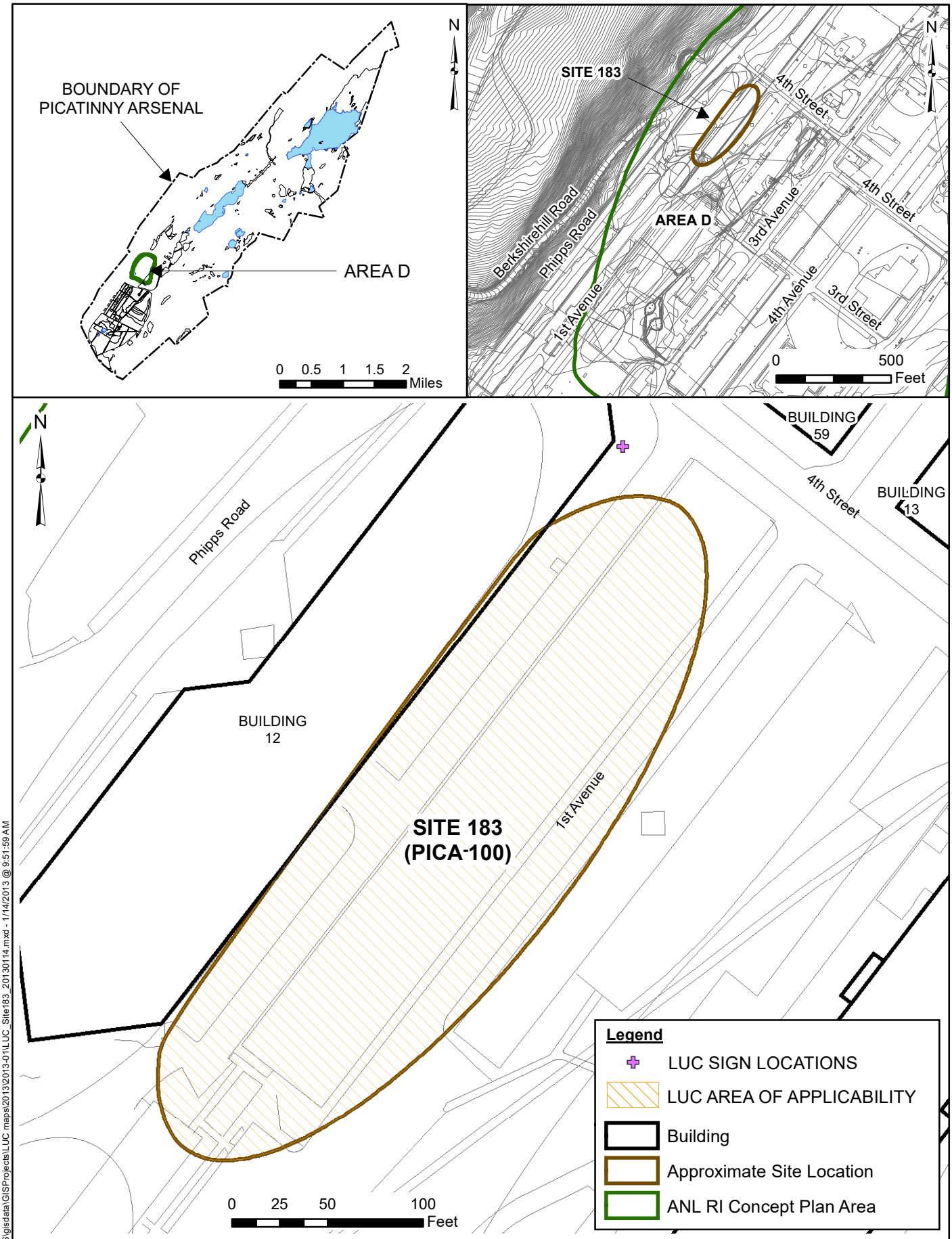
PROJECT NUMBER GP06PICA.LM12.LUC12	FIGURE 12-4



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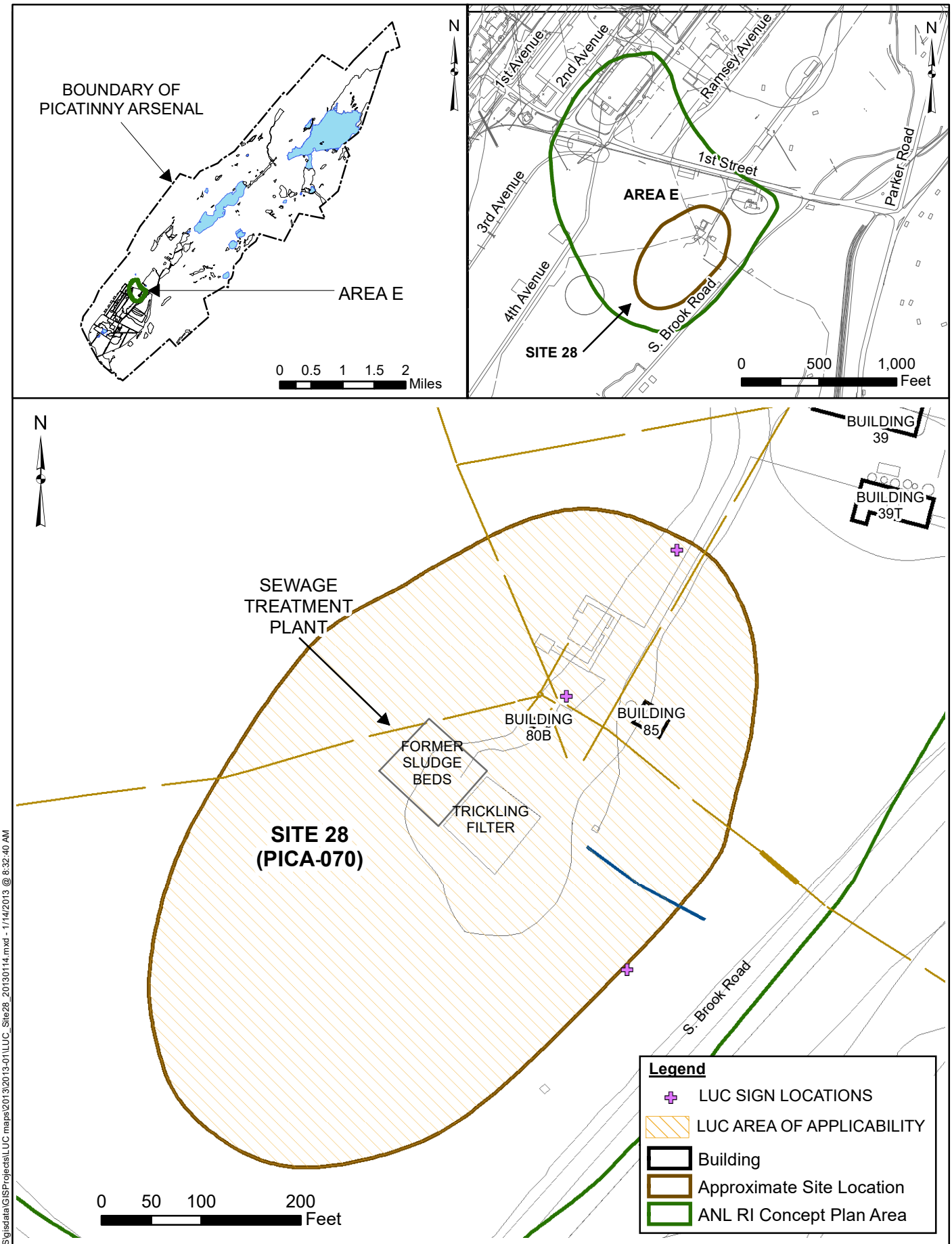
DRAWN M. GRESS	CHECKED V. MYERS
PROJECT NUMBER GP06PICA.LM12.LUC12	FIGURE 12-5



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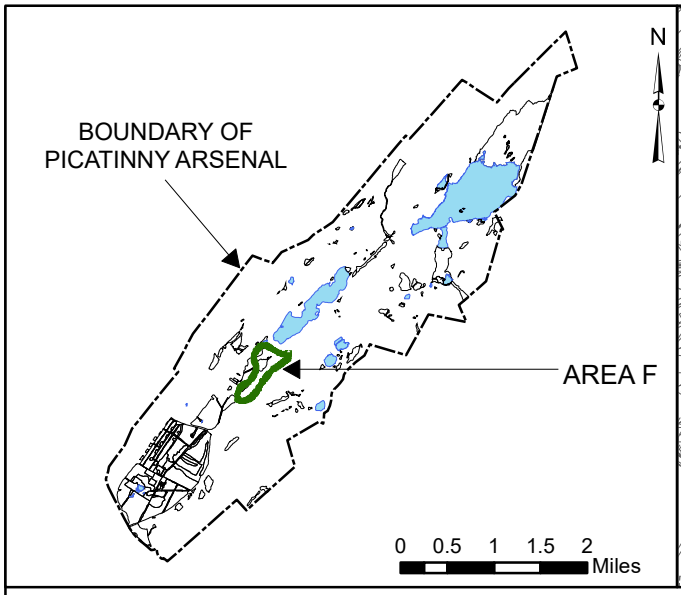
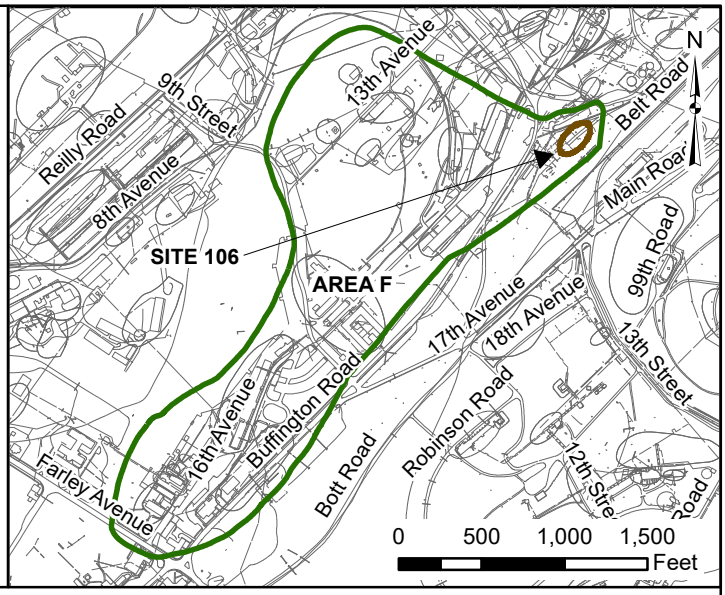
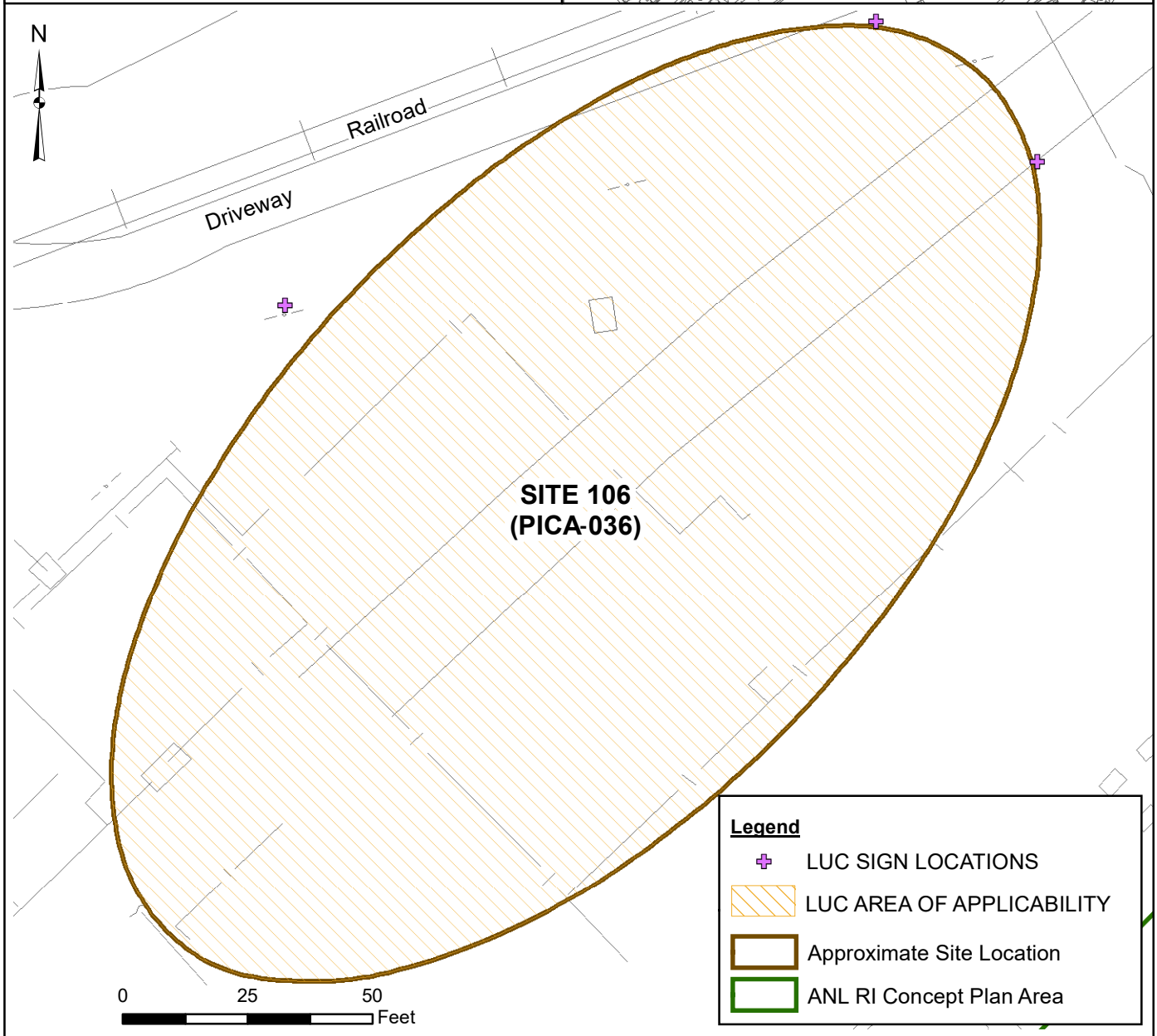
DRAWN M. GRESS	CHECKED V. MYERS
PROJECT NUMBER GP06PICA.LM12.LUC12	FIGURE 12-6







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PICATINNY ARSENAL, NEW JERSEY

PROJECT MANAGER T. LLEWELLYN	DEPARTMENT MANAGER B. WHITE
DRAWN M. GRESS	CHECKED V. MYERS
PROJECT NUMBER GP06PICA.LM12.LUC12	FIGURE 12-7

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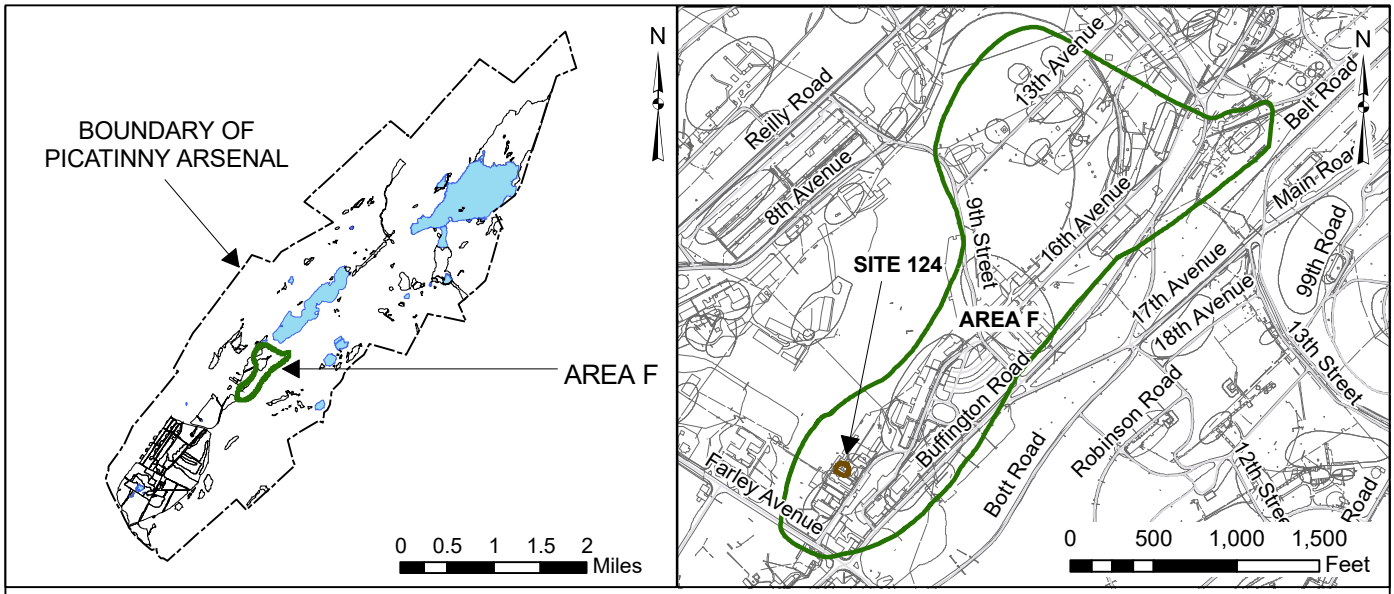

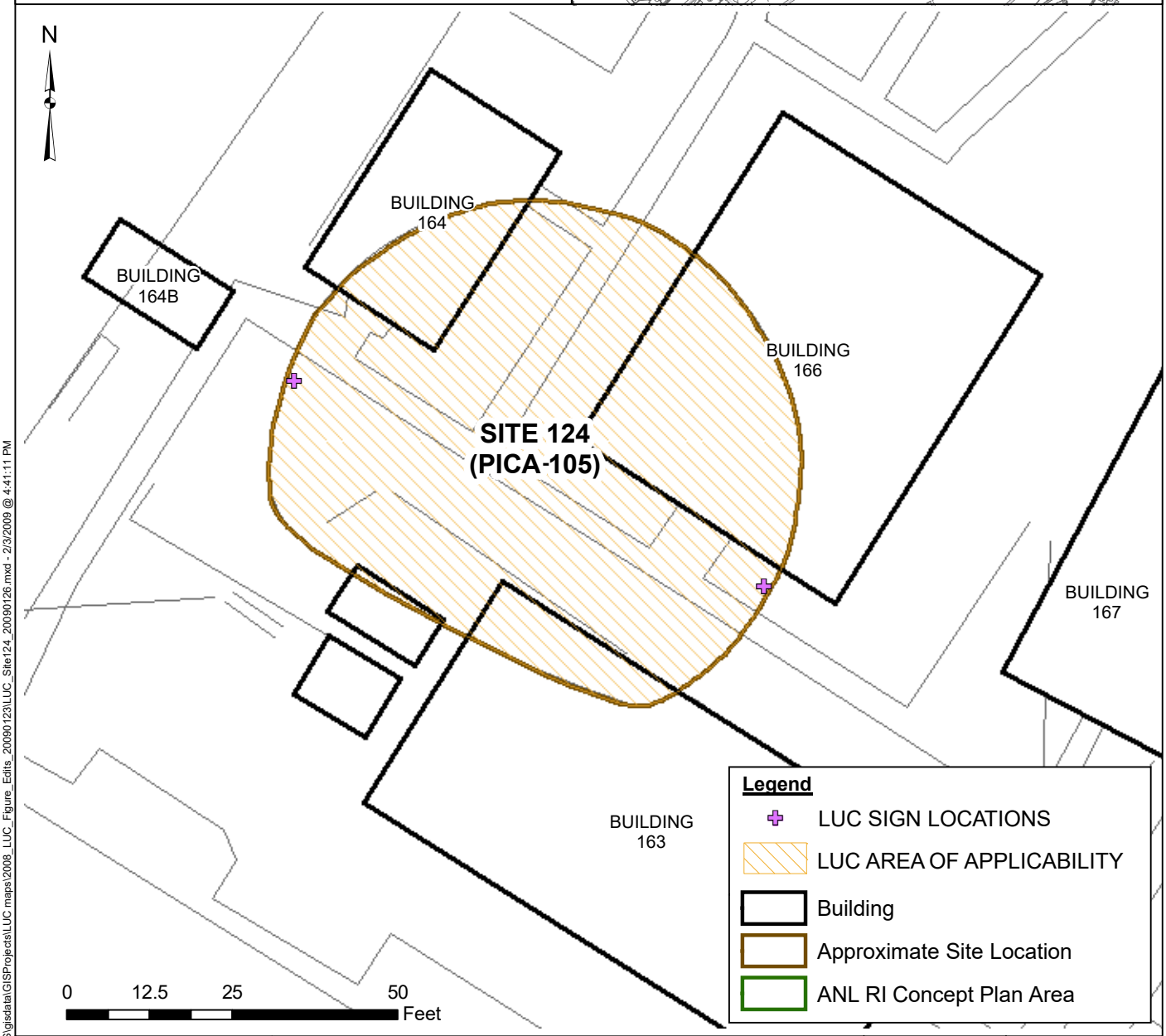

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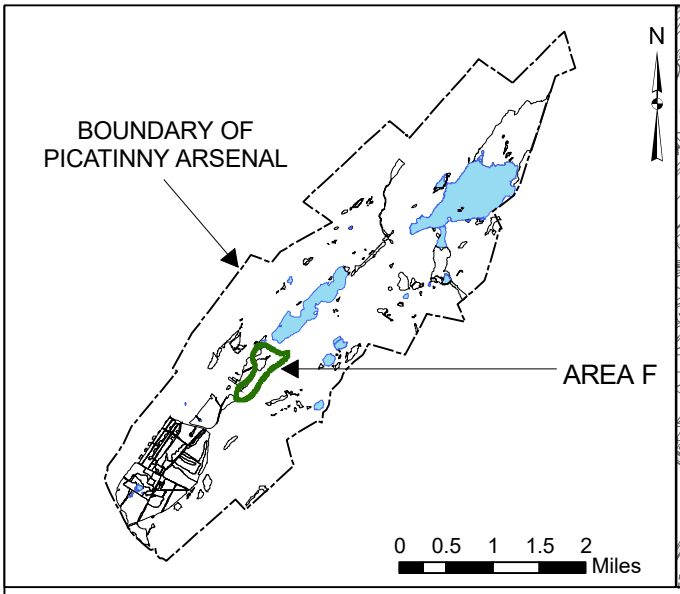
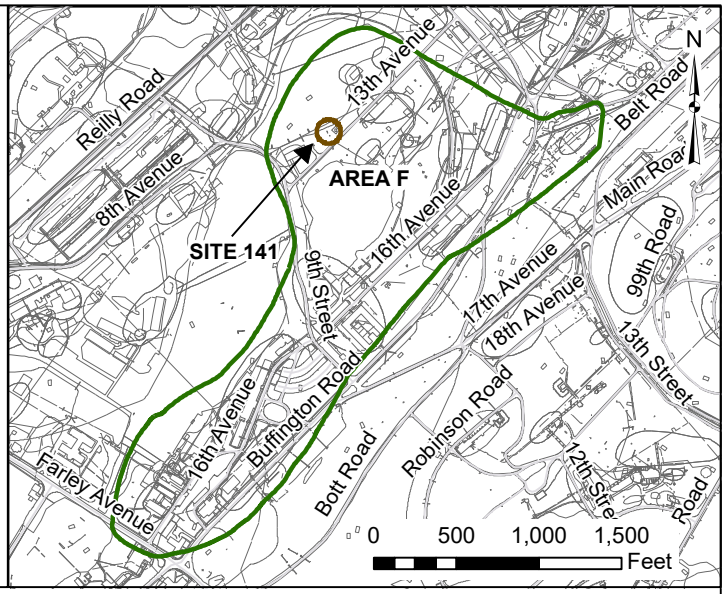
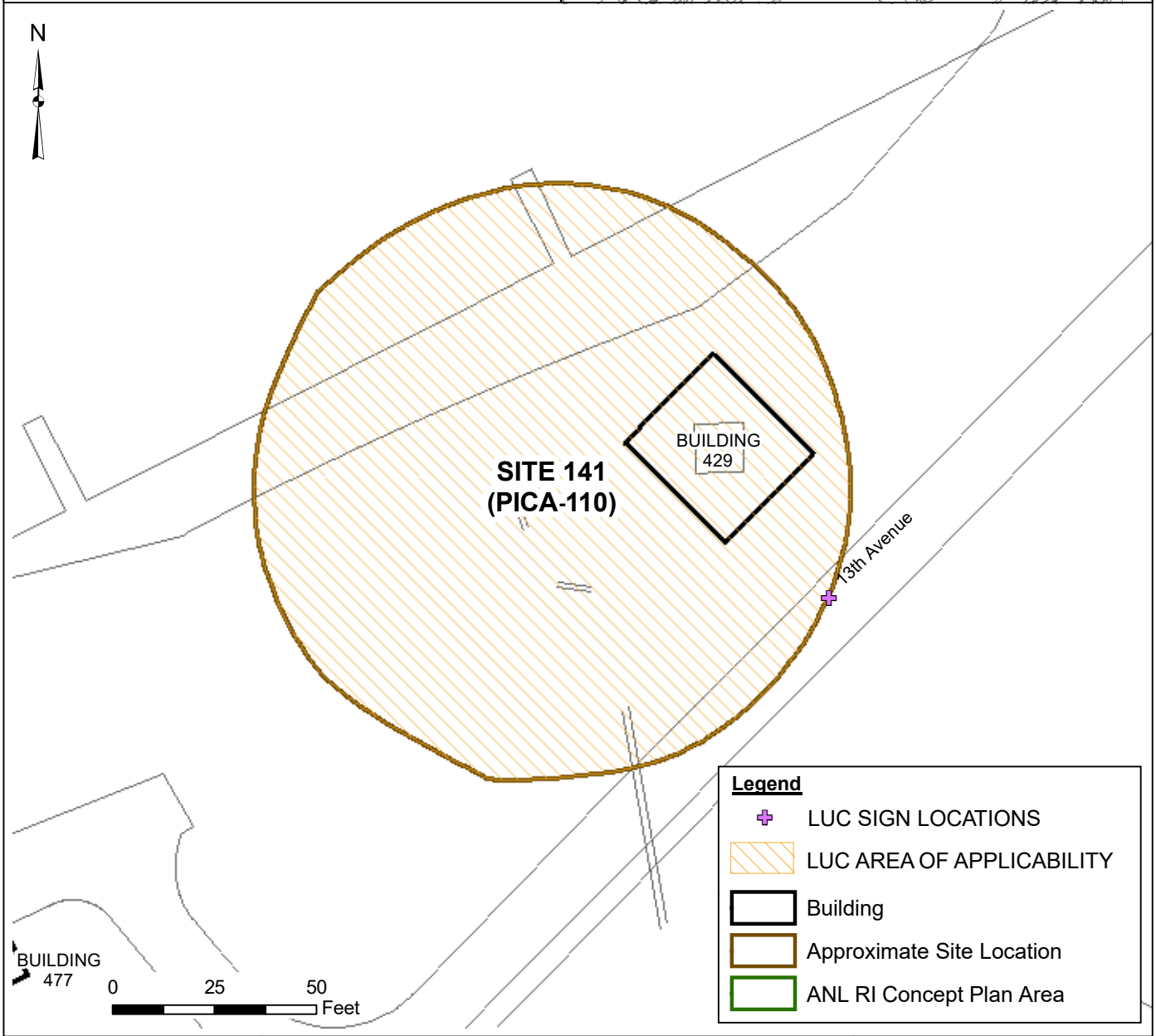
ARCADIS
ARCADIS - Edison, NJ
101 Fieldcrest Avenue, Suite 5E
Edison, NJ 08817
Phone: (732) 225-5061
Fax: (732) 225-5067

GROUP OF SITES (PICA-020)
LAYOUT OF LUC AREA SITE 124 (PICA-105)
PICATINNY ARSENAL, NEW JERSEY

PROJECT MANAGER T. LLEWELLYN	DEPARTMENT MANAGER M. MOHIUDDIN
DRAWN M. GRESS	CHECKED K. BEIER
PROJECT NUMBER GP06PICA.P020.NJ001	FIGURE 12-8







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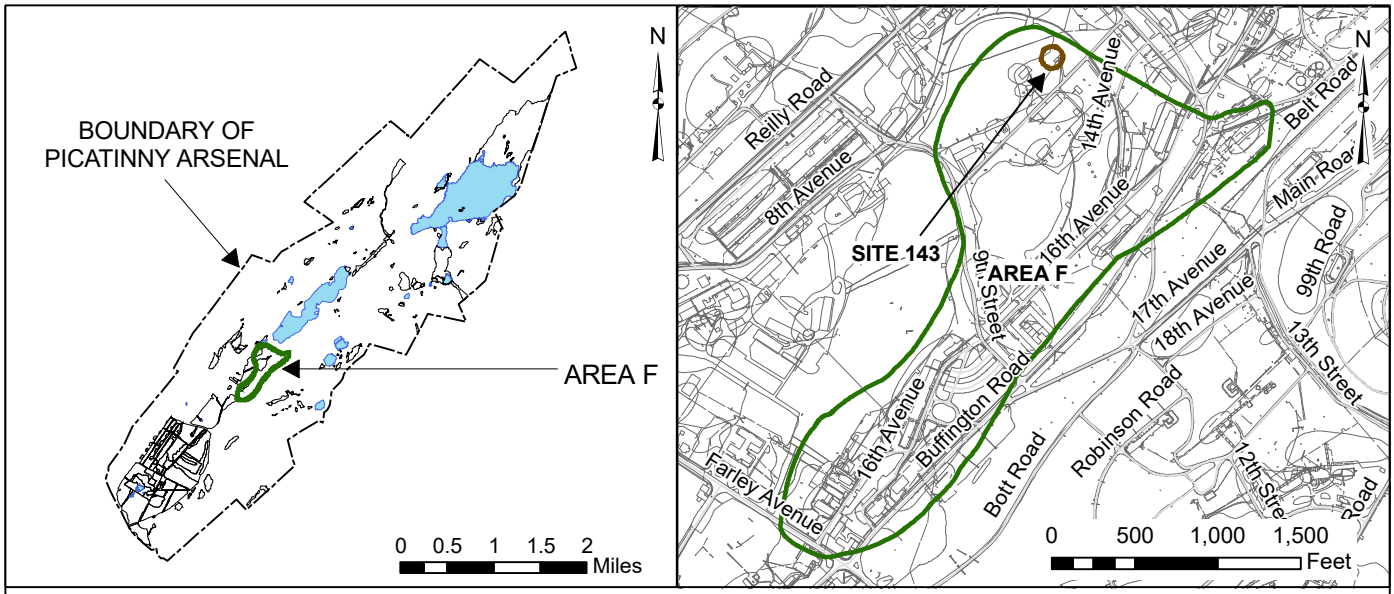
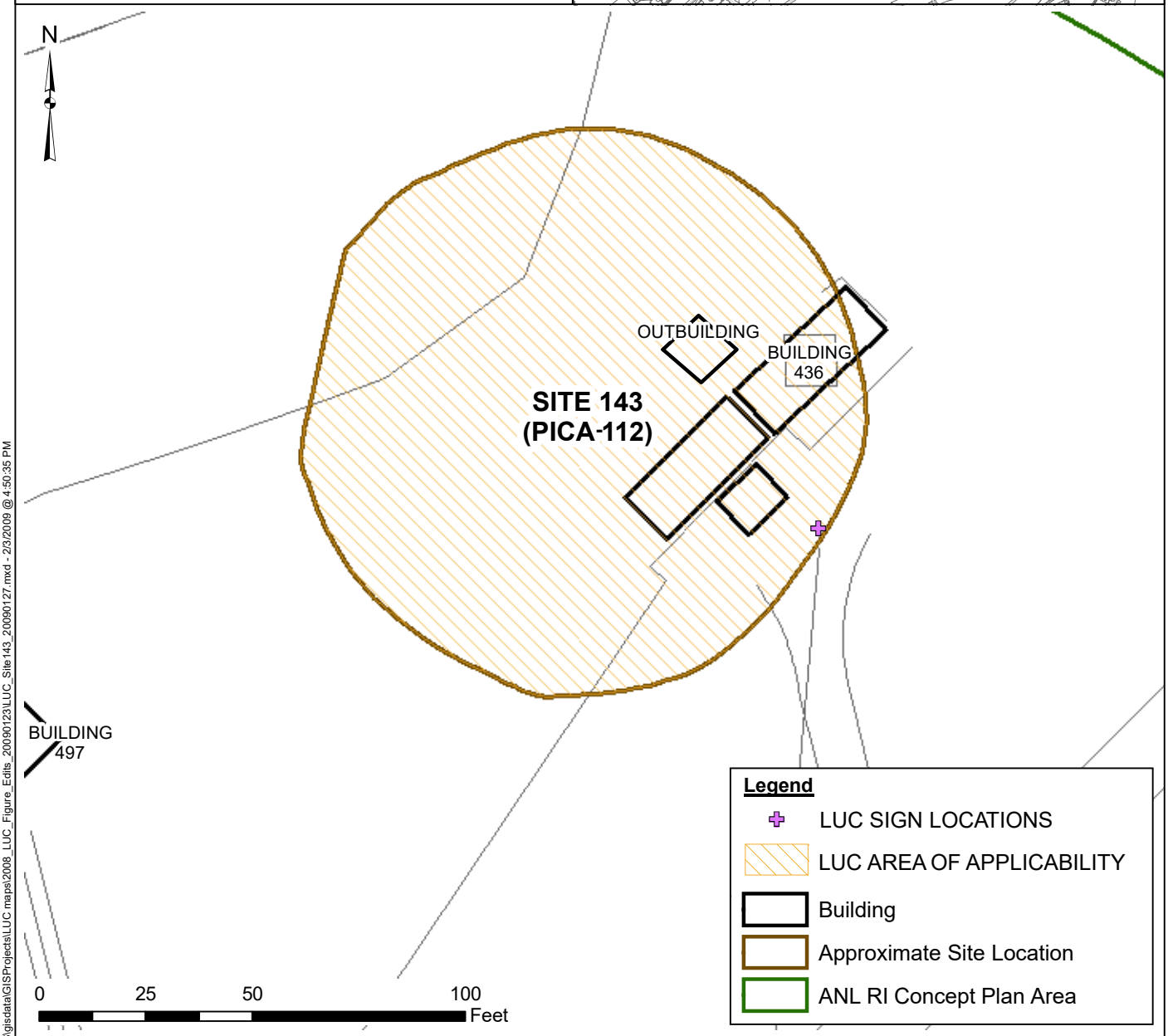
GROUP OF SITES (PICA-020)
LAYOUT OF LUC AREA SITE 141 (PICA-110)
PICATINNY ARSENAL, NEW JERSEY

PROJECT MANAGER T. LLEWELLYN	DEPARTMENT MANAGER M. MOHIUDDIN
DRAWN M. GRESS	CHECKED K. BEIER
PROJECT NUMBER GP06PICA.P020.NJ001	FIGURE 12-9





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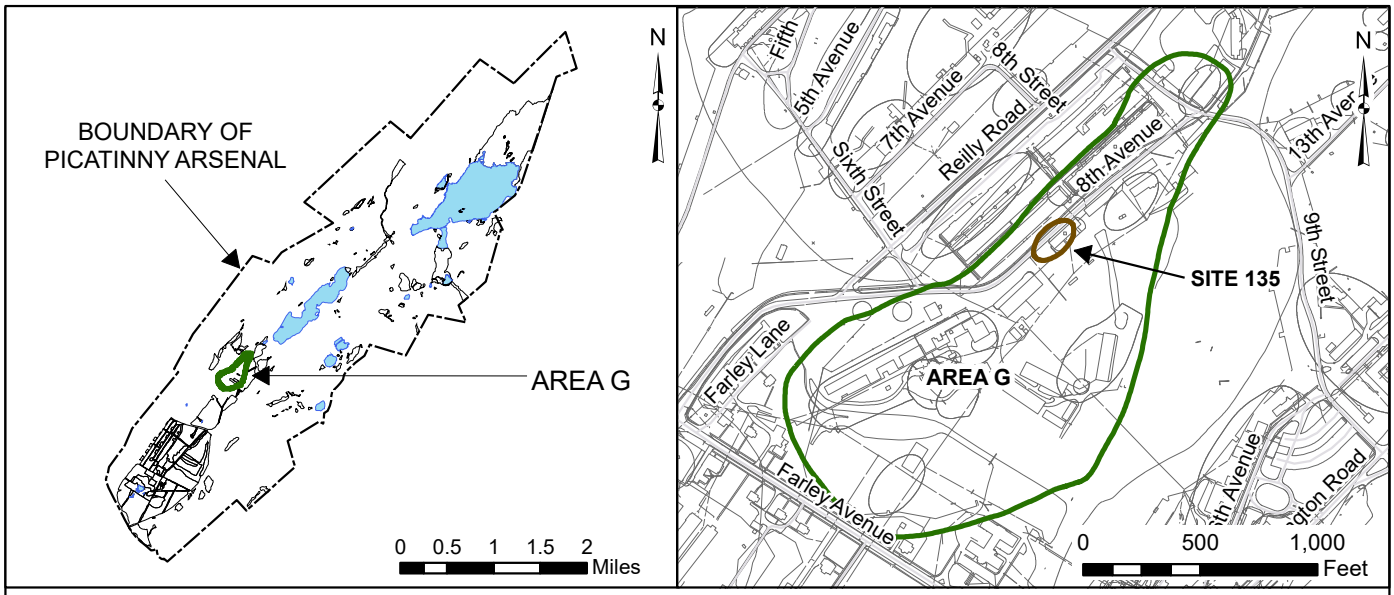
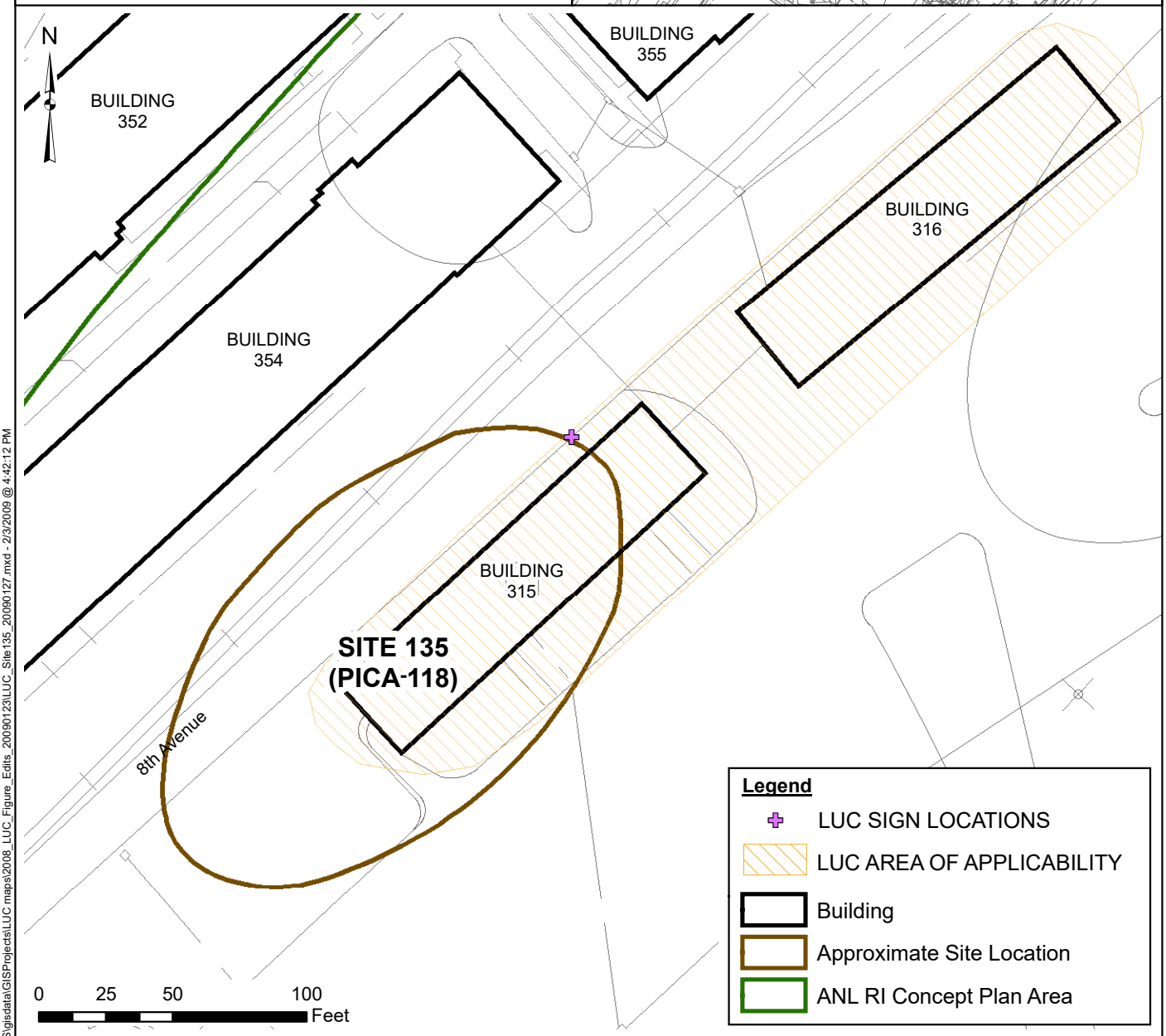
GROUP OF SITES (PICA-020)
LAYOUT OF LUC AREA SITE 143 (PICA-112)
PICATINNY ARSENAL, NEW JERSEY

PROJECT MANAGER T. LLEWELLYN	DEPARTMENT MANAGER M. MOHIUDDIN
DRAWN M. GRESS	CHECKED K. BEIER
PROJECT NUMBER GP06PICA.P020.NJ001	FIGURE 12-10





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GROUP OF SITES (PICA-020)
LAYOUT OF LUC AREA SITE 135 (PICA-118)
PICATINNY ARSENAL, NEW JERSEY

PROJECT MANAGER T. LLEWELLYN	DEPARTMENT MANAGER M. MOHIUDDIN
DRAWN M. GRESS	CHECKED K. BEIER
PROJECT NUMBER GP06PICA.P020.NJ001	FIGURE 12-11

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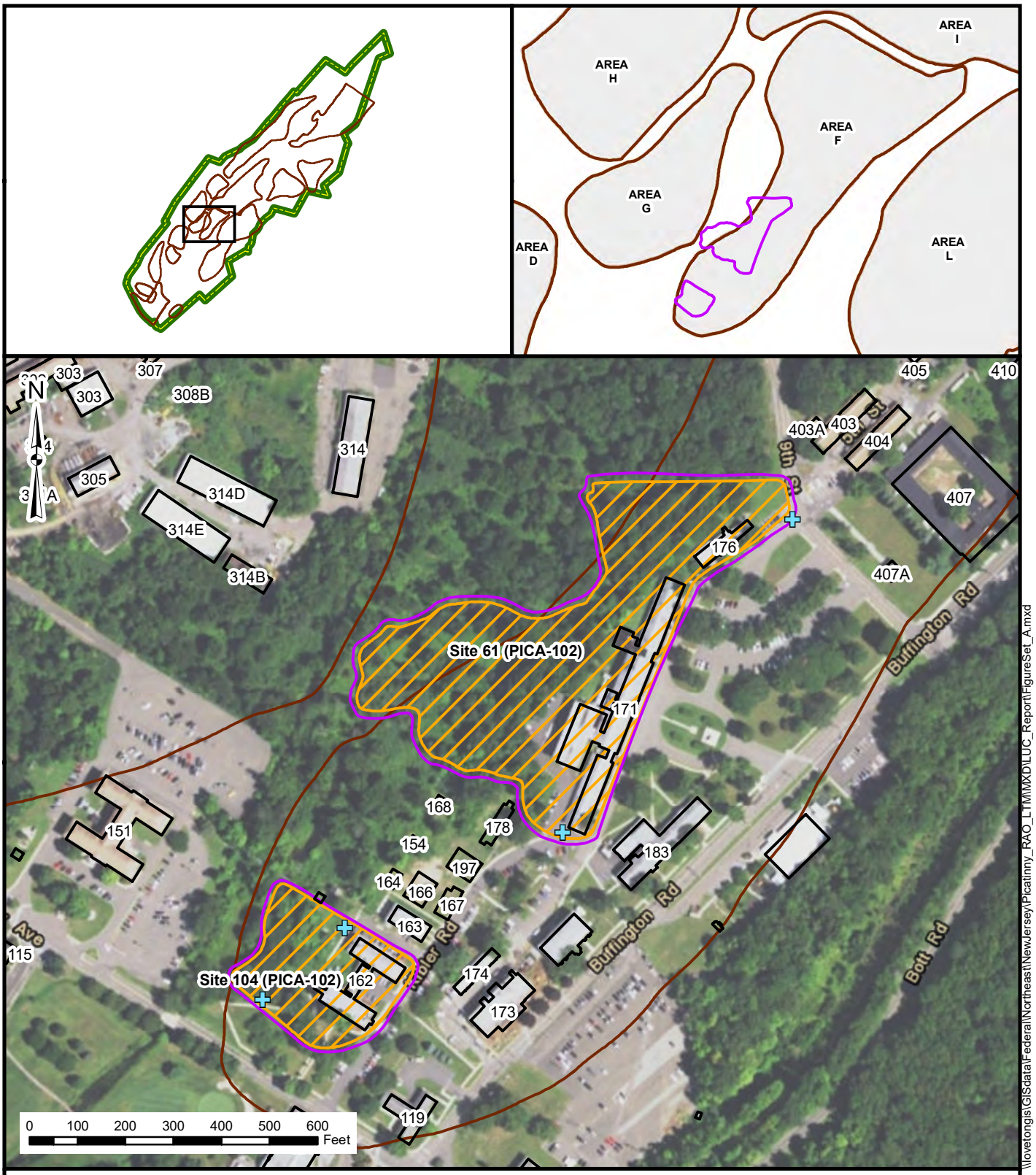

Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location
- LUC Area of Applicability
- LUC Sign Location

ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure 13-1
Site 61/104 (PICA-102)

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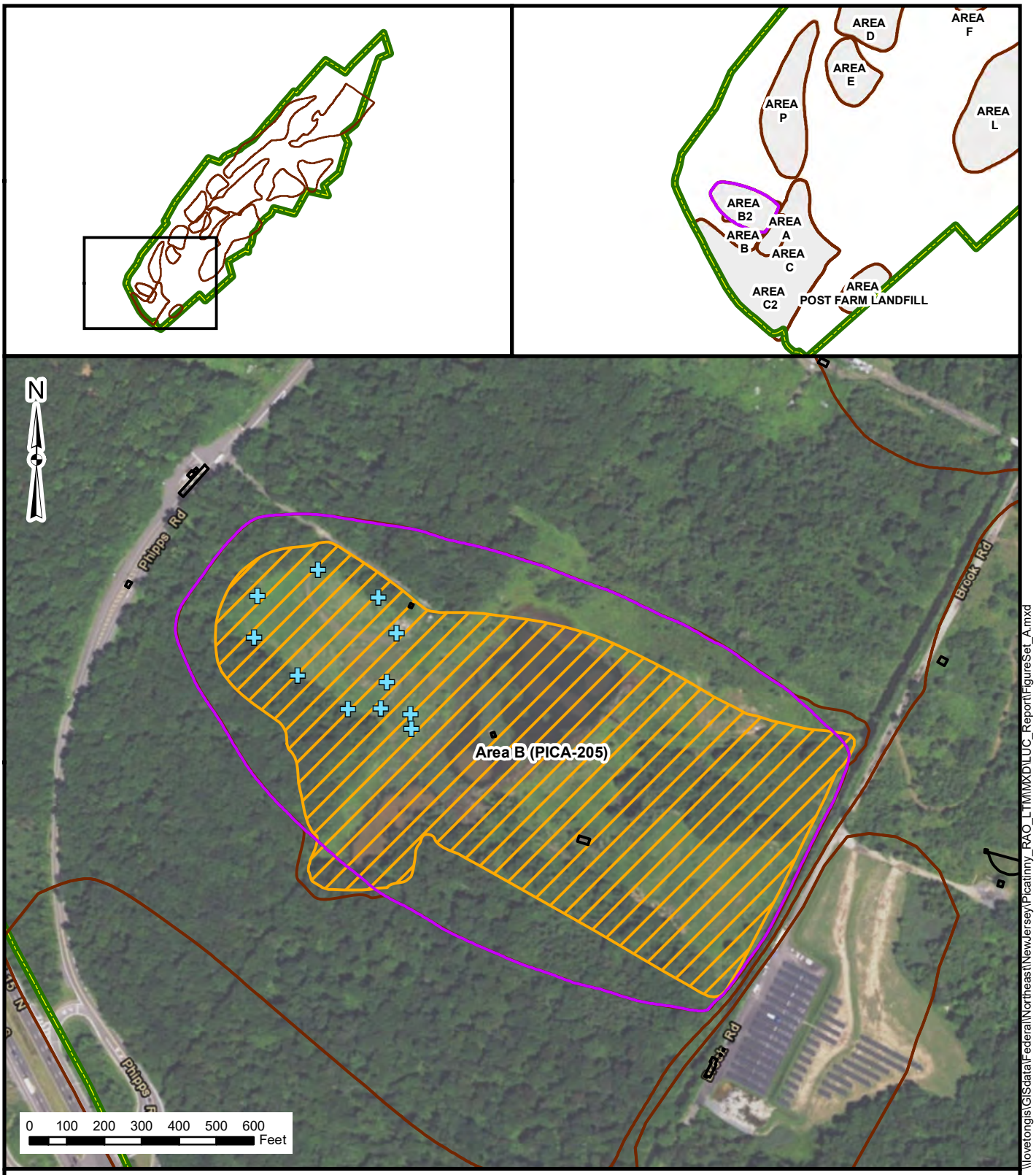

Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location
- LUC Area of Applicability
- LUC Sign Location

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ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure 14-1
Area B (PICA-205)

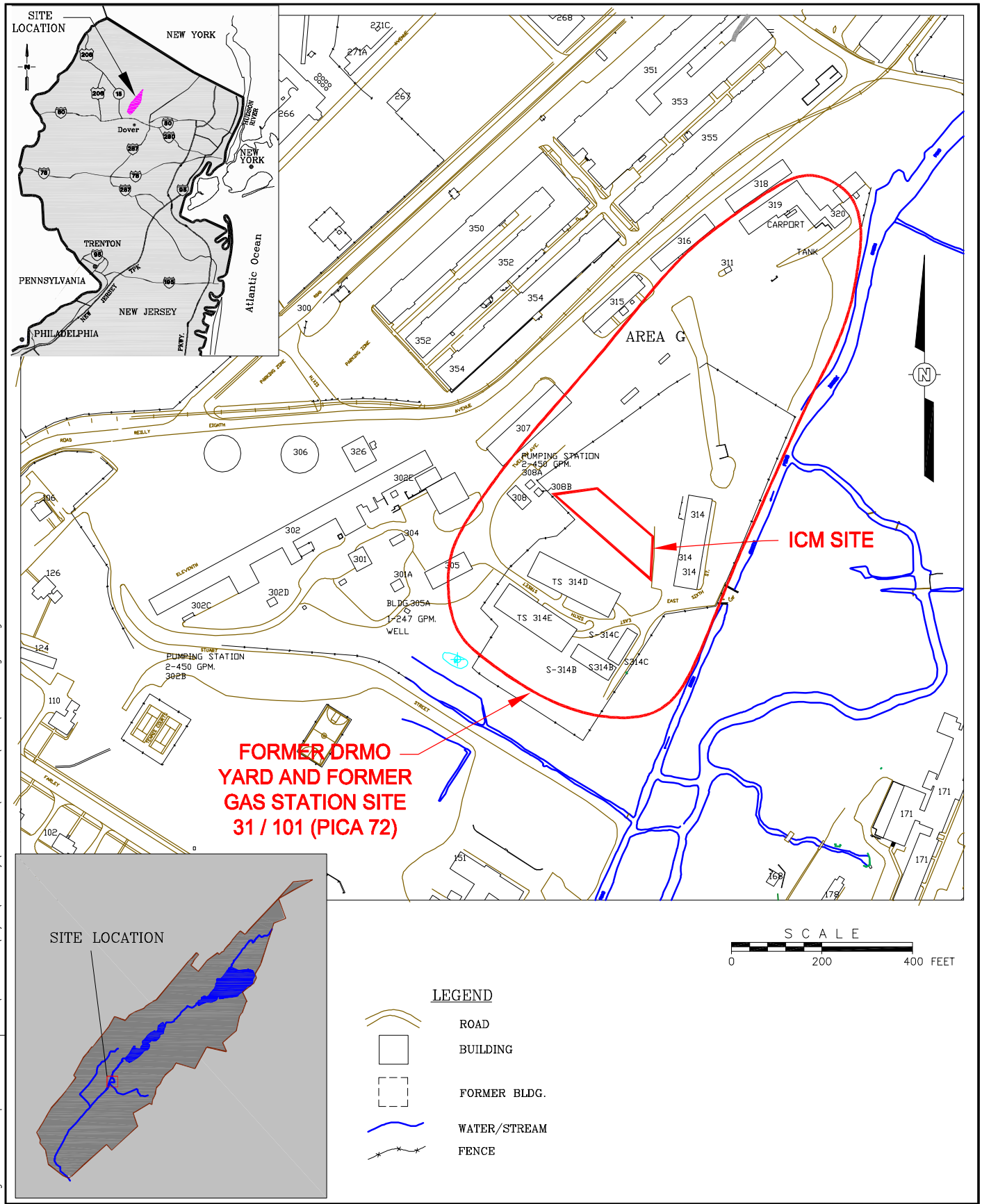
Installation Boundary
Area B
Surface Water Sampling Location
Existing Injection Well
Annual Monitoring Well
Performance Monitoring Well

0 150
Feet

EA Engineering, Science, and Technology, Inc., PBC

2015 ANNUAL REPORT
AREA B (PICA-205)
PICATINNY ARSENAL

Figure 14-2
Sample Location



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Date\Time : Fri, 13 Aug 2010 - 3:46pm

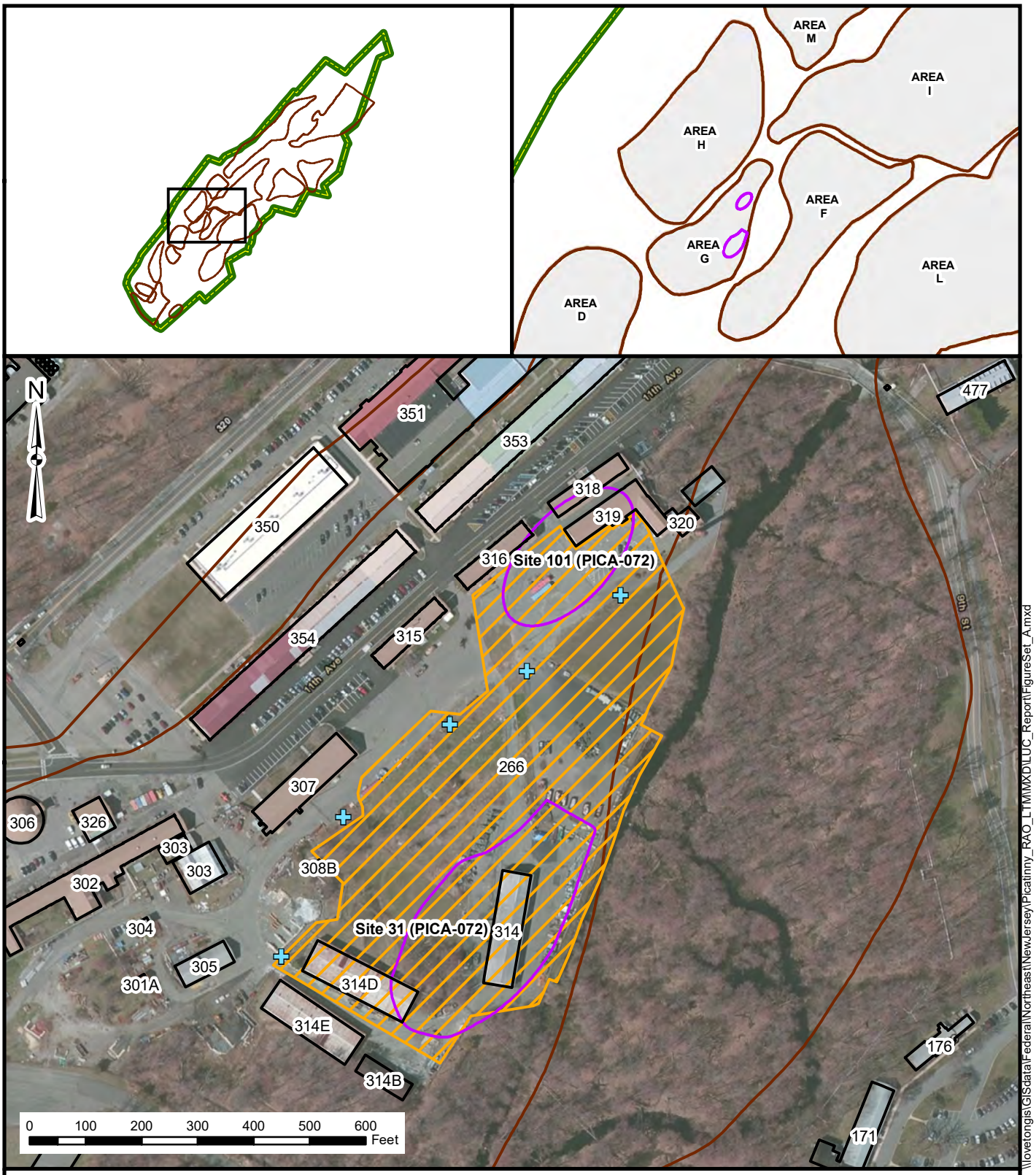
ARCADIS

1114 Benfield Boulevard, Suite A
Millersville, Maryland 21108
Tel (410) 987-0032 Fax (410) 987-4392

SITE LOCATION MAP

SITE 31/101 (PICA 072)
FORMER DRMO YARD AND
FORMER GAS STATION
PICATINNY, ARSENAL
NEW JERSEY

PROJECT MANAGER BS	DEPARTMENT MANAGER PJS
DRAWN JSG	CHECKED CSC
PROJECT NUMBER GP06PICA.P072	FIGURE 15-1



Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location
- LUC Area of Applicability
- LUC Sign Location

ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure 15-1
Site 31/101 (PICA-072)

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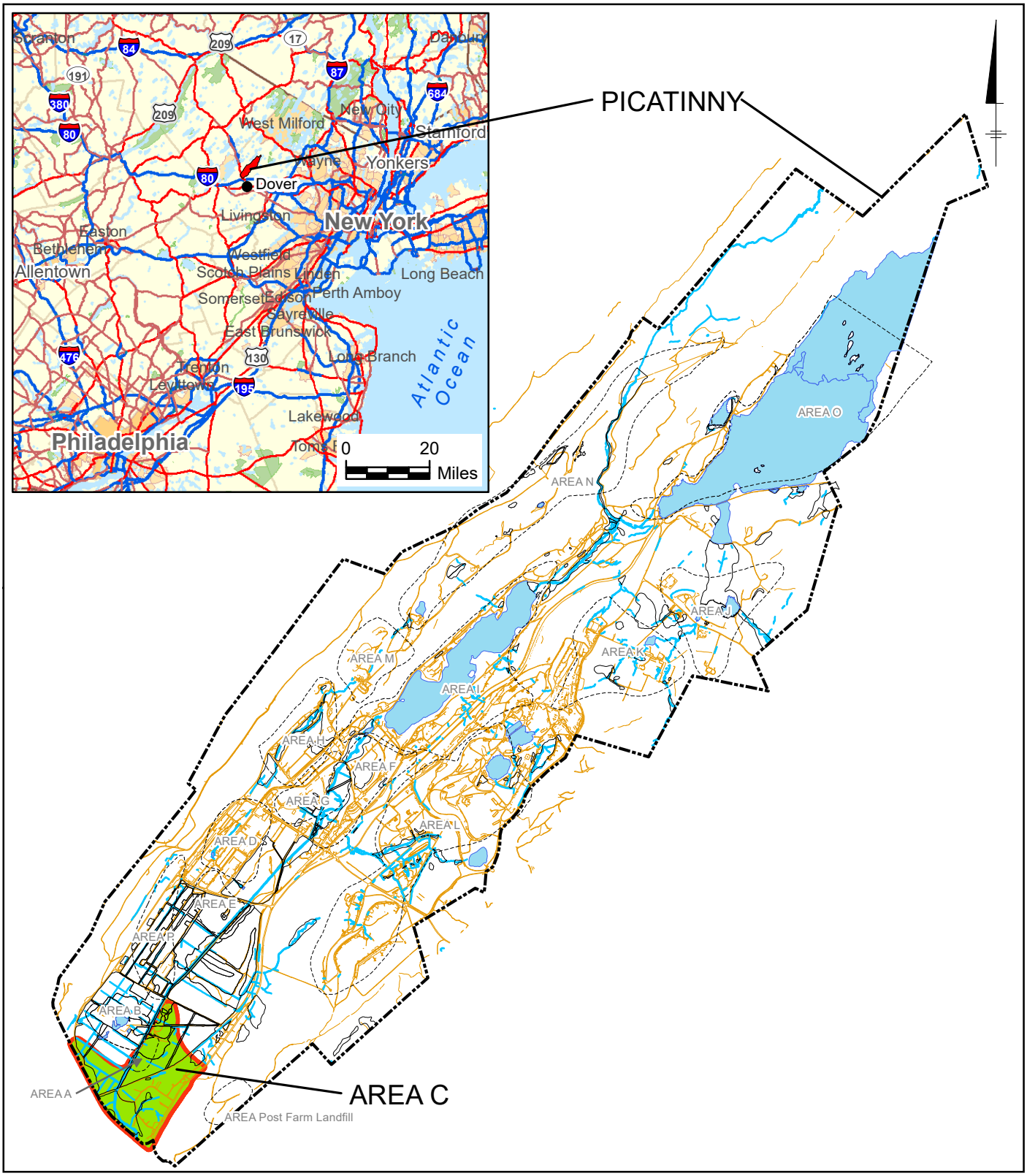

0 4,000 8,000 Feet

GRAPHIC SCALE

LEGEND:

SURFICIAL HYDROLOGY

ROAD

AREA BOUNDARY

PICATINNY BOUNDARY

AREA C
PICATINNY ARSENAL, DOVER, NEW JERSEY

LOCATION OF AREA C AND PICATINNY ARSENAL

ARCADIS

FIGURE
16-1

CITY: MPLS DIV/GROUP: IM DB: MG LD: EC
Picatinny (GP06PICA.SITE)
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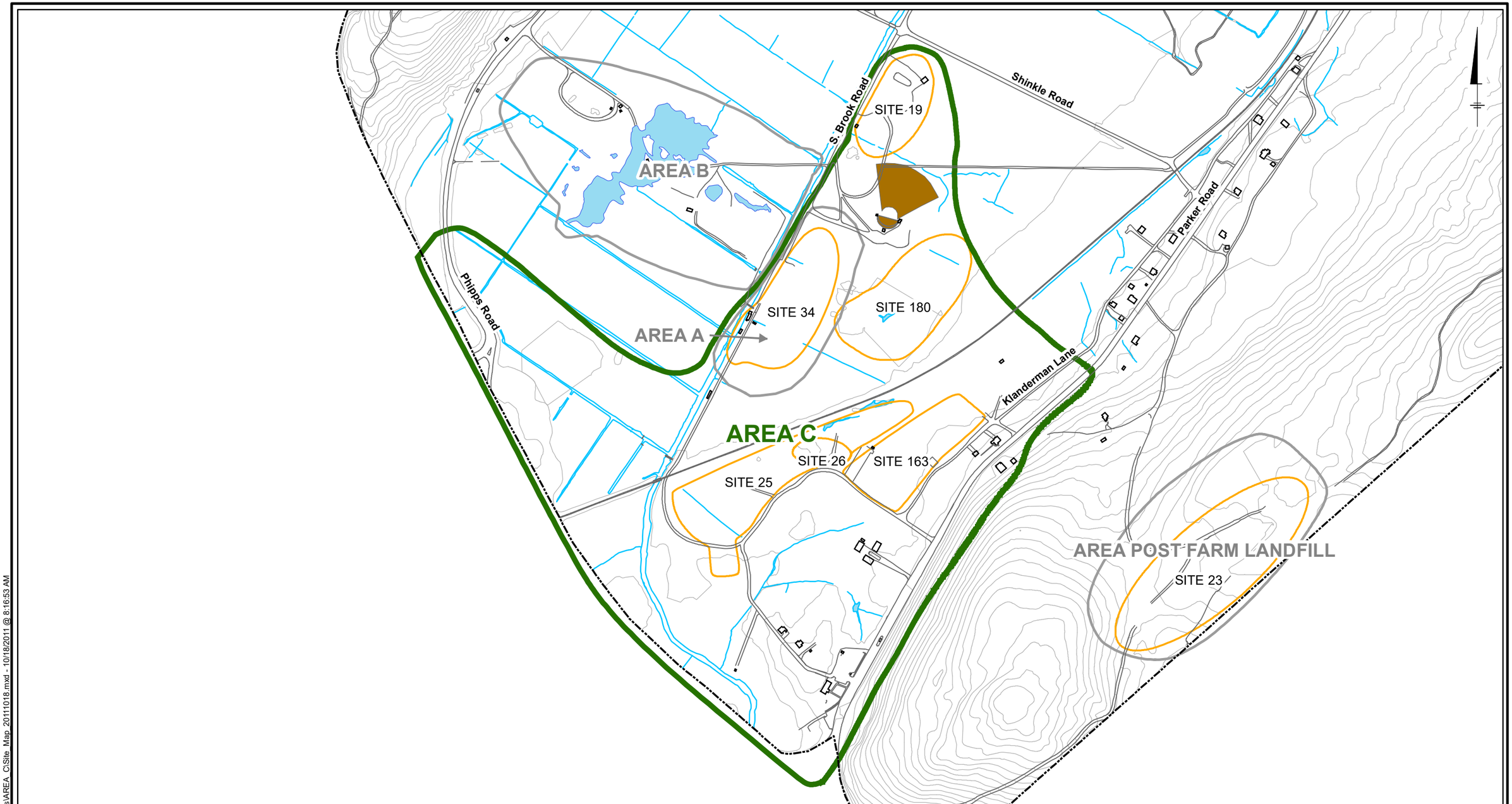

LEGEND:

- ROAD
- 10' SURFACE CONTOUR
- SURFICIAL HYDROLOGY
- SKEET RANGE
- BUILDING
- AREA C BOUNDARY
- SITE BOUNDARY
- BASE BOUNDARY

0 400 800 Feet

GRAPHIC SCALE

AREA C
PICATINNY ARSENAL, DOVER, NEW JERSEY

AREA C SITE MAP

ARCADIS

FIGURE
16-2

CITY: MPLS DIV/GROUP: IM DB: MG LD: EC
Picatinny (GP06PICA.SITE)
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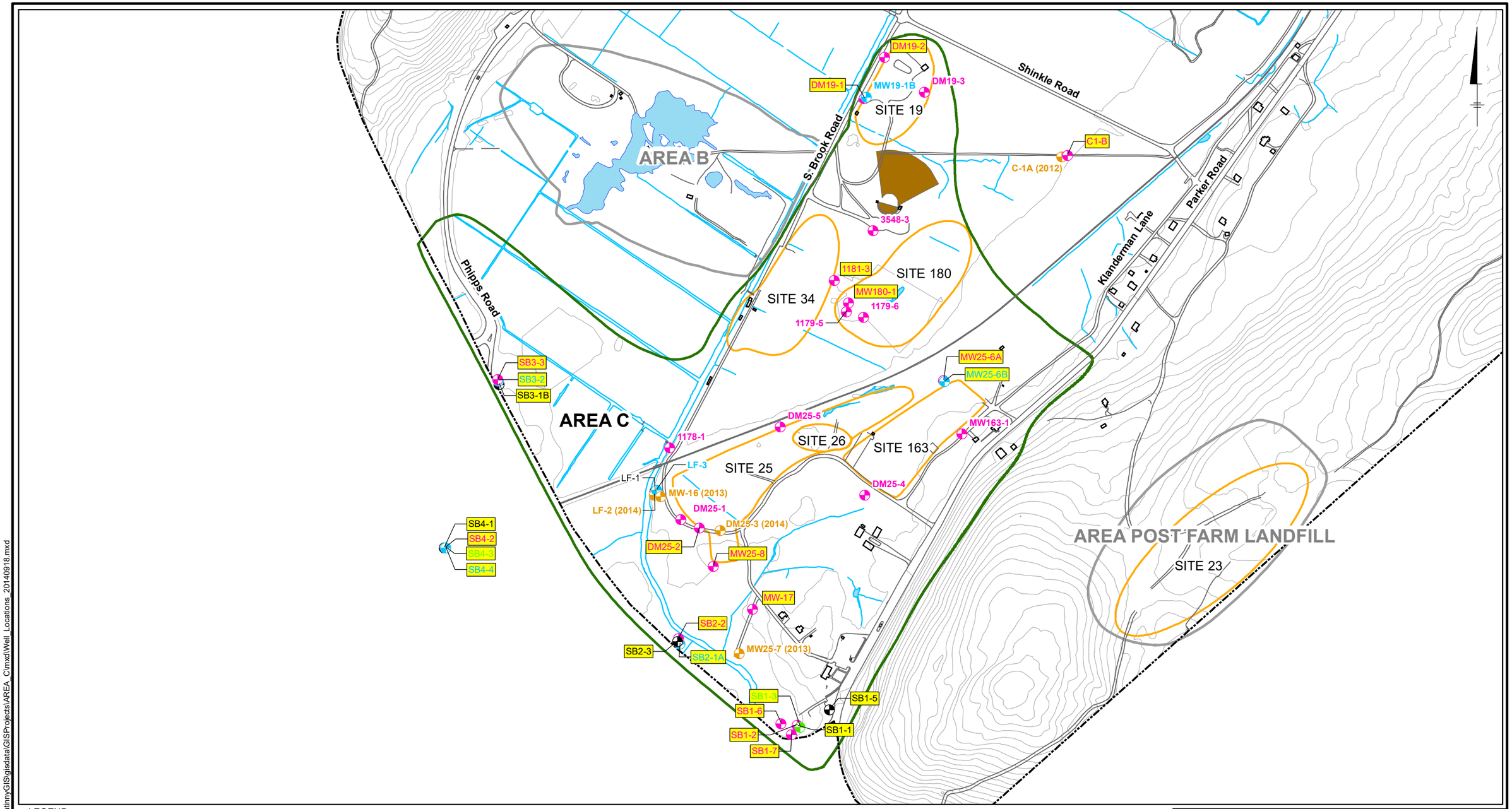


LEGEND:

MONITORING WELLS

- WELL SCREENED WITHIN THE UNCONFINED AQUIFER
- WELL SCREENED WITHIN THE LOWER SEMI-CONFINED AQUIFER
- WELL SCREENED WITHIN THE UPPER SEMI-CONFINED AQUIFER
- WELL SCREENED WITHIN THE BEDROCK AQUIFER
- DECOMMISSIONED WELL (YEAR DECOMMISSIONED)
- C-1B WELL IN LTM PLAN

- ROAD
- 10' SURFACE CONTOUR
- SURFICIAL HYDROLOGY
- SKEET RANGE

- BUILDING
- AREA C BOUNDARY
- SITE BOUNDARY
- BASE BOUNDARY

0 550 1,100 Feet

GRAPHIC SCALE

AREA C
PICATINNY ARSENAL, DOVER, NEW JERSEY

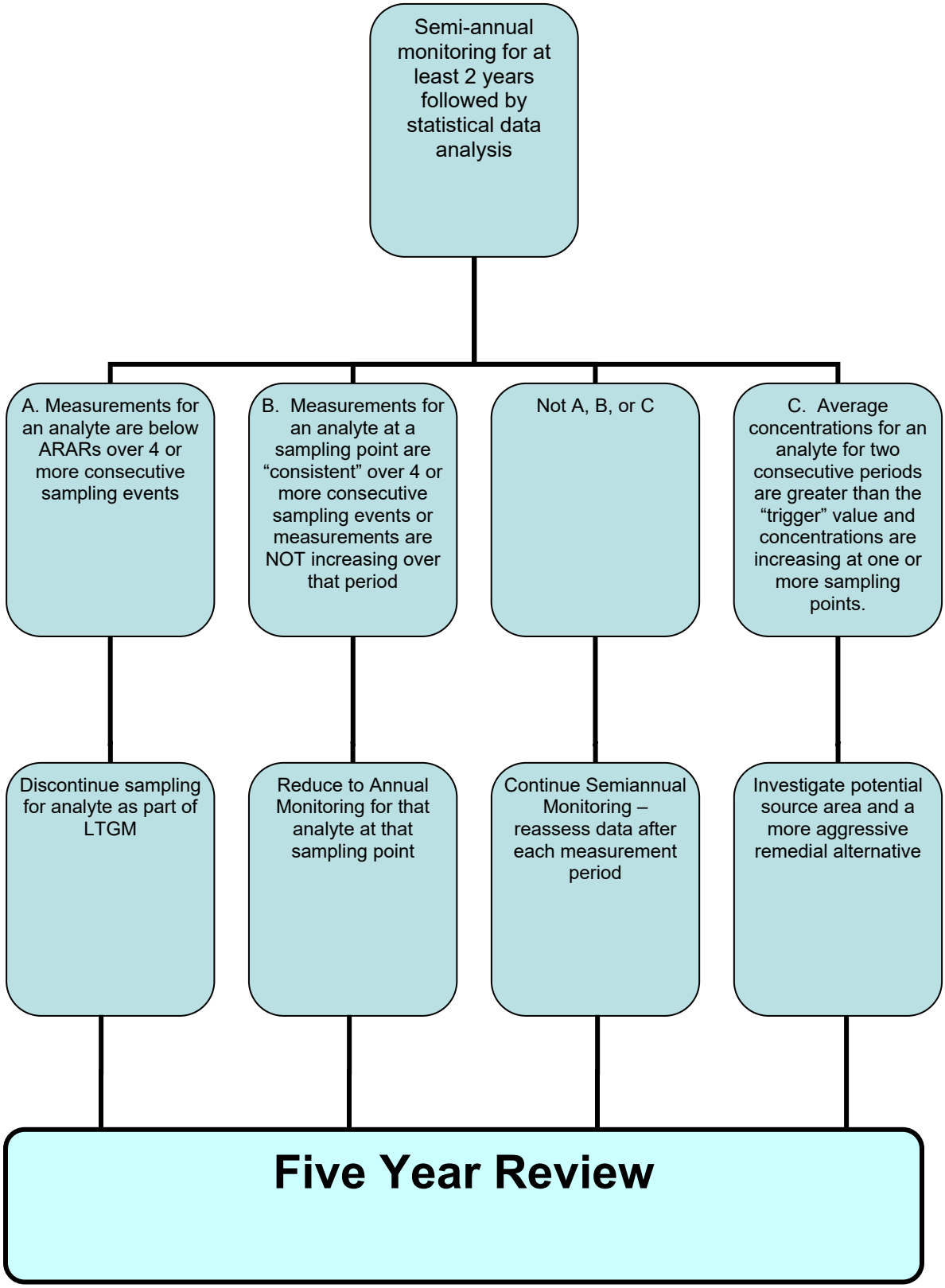
LONG-TERM GROUNDWATER MONITORING WELL LOCATIONS

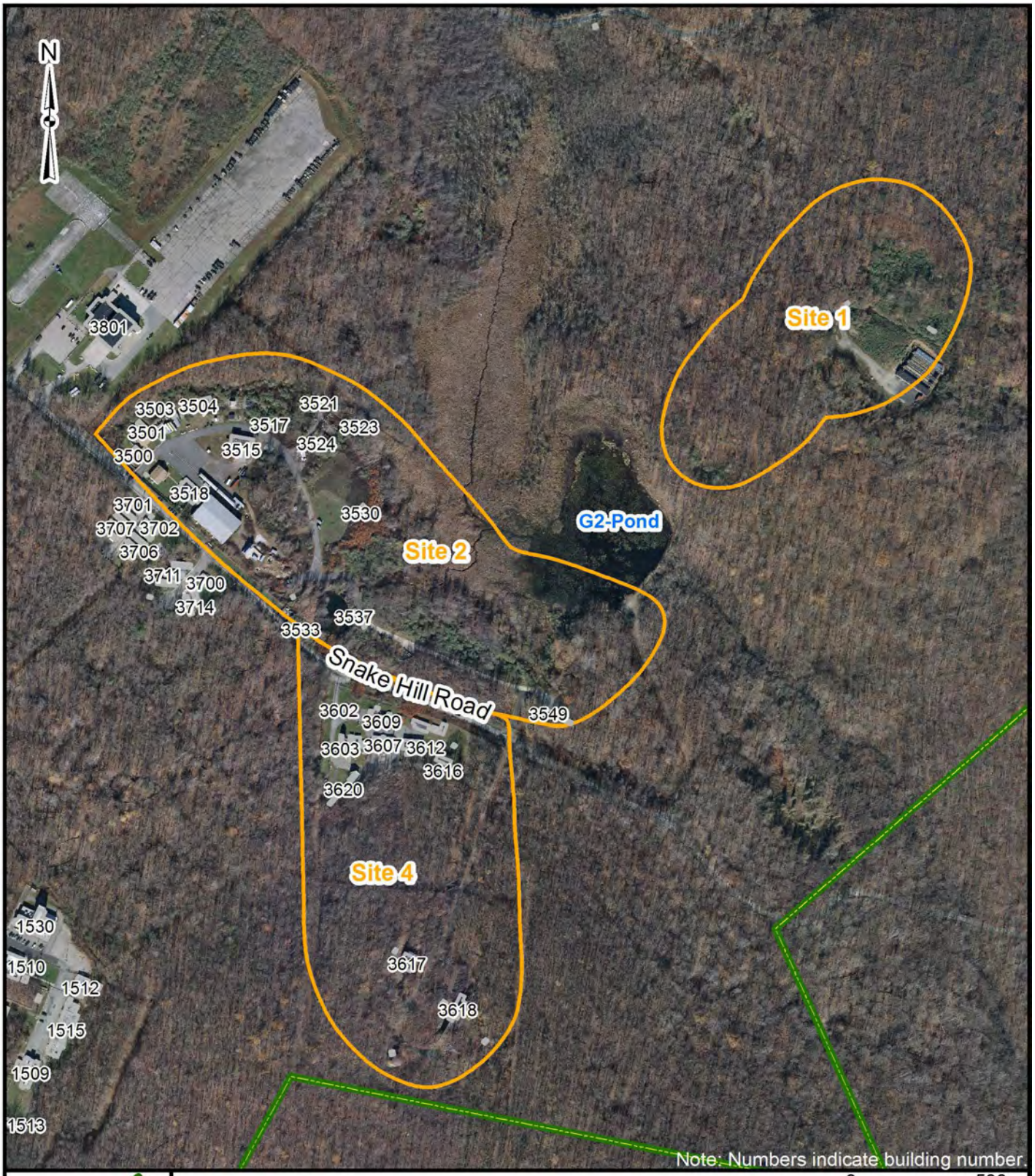
ARCADIS

FIGURE
16-3

CITY: MPLS DIV/GROUP: IM DB: MG LD: EC
Picatinny (GP06PICA.SITE)
Document Path: Z:\GISPROJECTS_ENV\PicatinnyGIS\gisdata\GISProjects\AREA_C\mxd\Well_Locations_20140918.mxd

Figure 16-4
Long –Term Groundwater Monitoring Flow Chart





Group 3 (PICA-008)

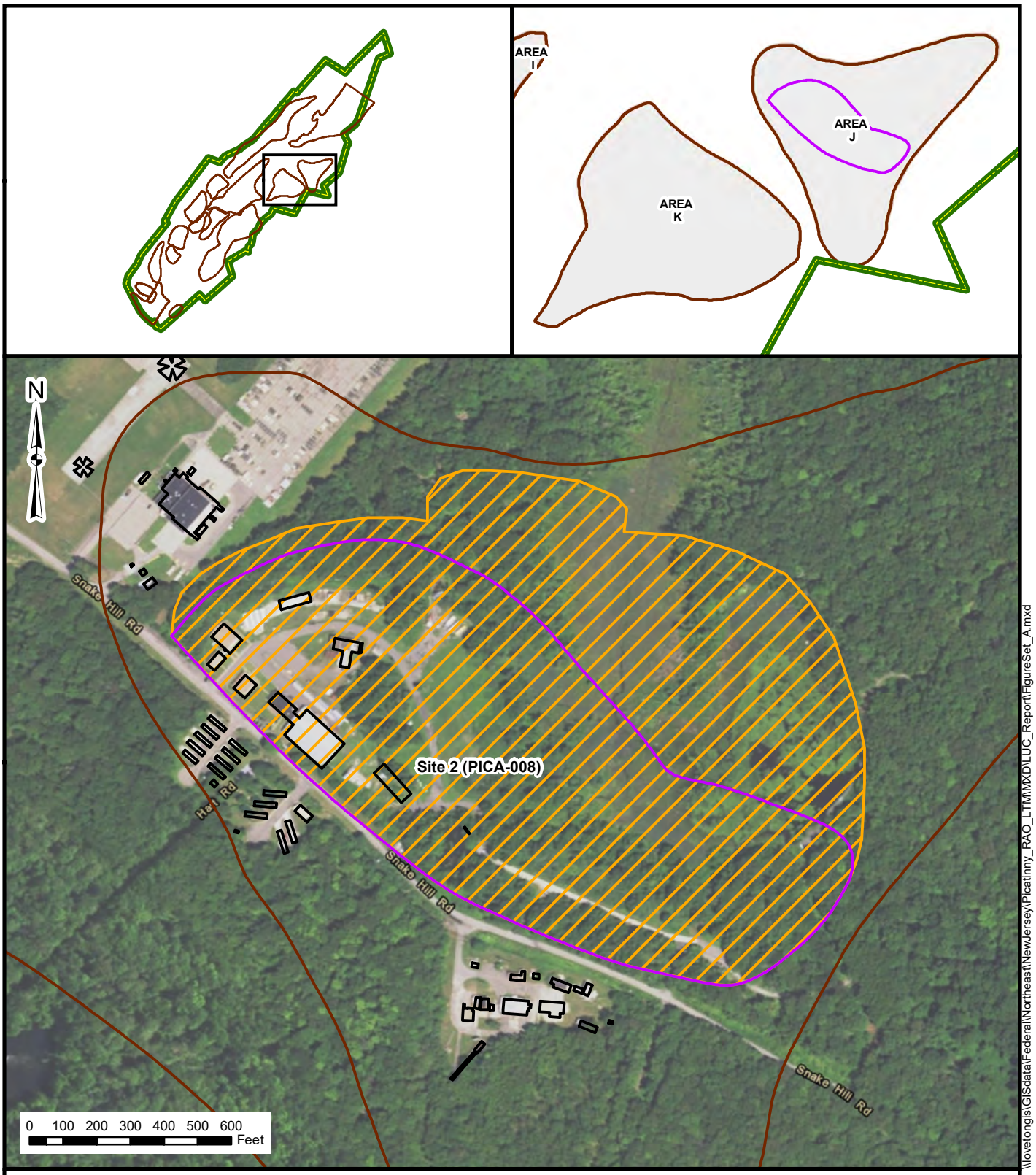
Installation Boundary

Buildings

EA Engineering, Science, and Technology, Inc., PBC

2015 ANNUAL REPORT
GROUP 3 - SITE 2 (PICA-008)
PICATINNY ARSENAL

Figure 17-1
Group 3 (PICA-008)
Location Map



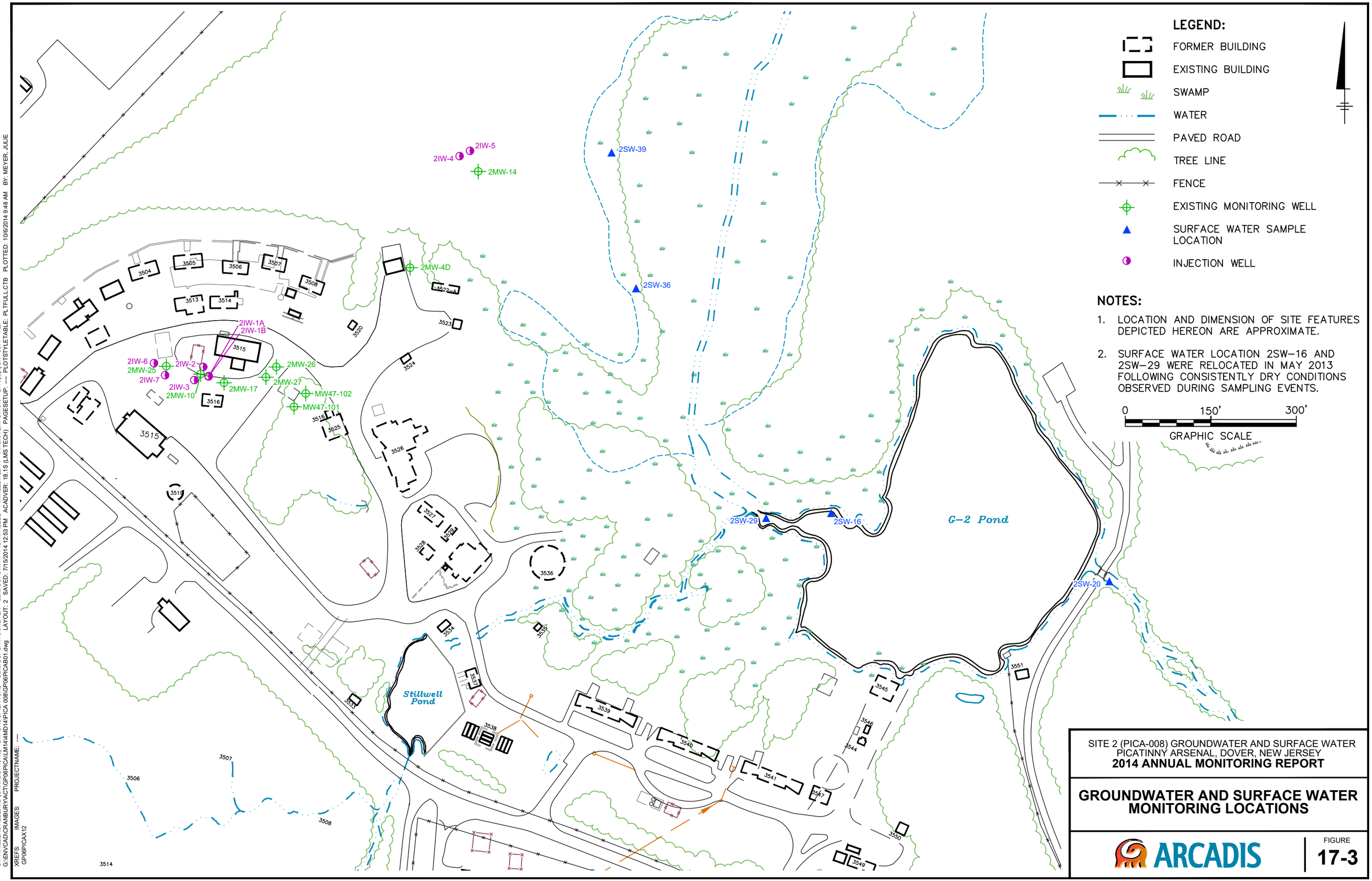
Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location
- LUC Area of Applicability

ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure 17-2
Site 2 (PICA-008)

\\lovetongis\GISdata\Federal\Northeast\NewJersey\Picatinny_RAO_LTM\MXD\LUC_Report\FigureSet_A.mxd



SITE 2 (PICA-008) GROUNDWATER AND SURFACE WATER
PICATINNY ARSENAL, DOVER, NEW JERSEY
2014 ANNUAL MONITORING REPORT

GROUNDWATER AND SURFACE WATER MONITORING LOCATIONS

ARCADIS

FIGURE
17-3

CITY:MILLERSVILLE, MD (CRANBURY, NJ) DIV/GROUP:ENVCAD DB:J.GOFORTH, JMEYER LD:J.GOFORTH PIC:T.TALELE PM:T.LLEWLLYN TM:B.STEMPOWSKI LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\CRANBURY*ACT\GP06PICA\LM14\MD14\PICA 008\GP06PICAB01.dwg LAYOUT: 2 SAVED: 7/15/2014 12:53 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/6/2014 9:48 AM BY: MEYER, JULIE
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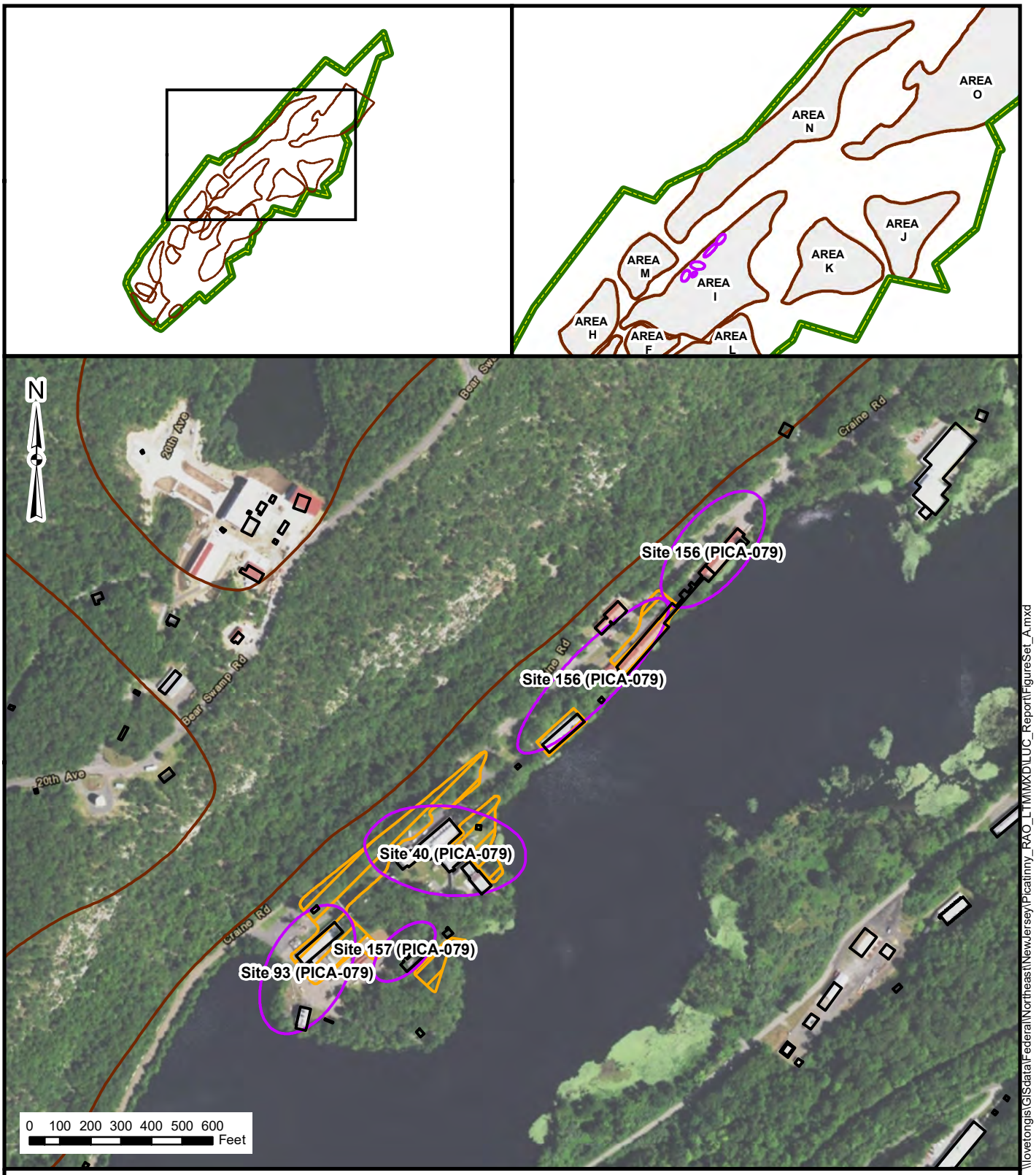

Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location
- LUC Area of Applicability

ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure 18-1
Group 1 (PICA-079)

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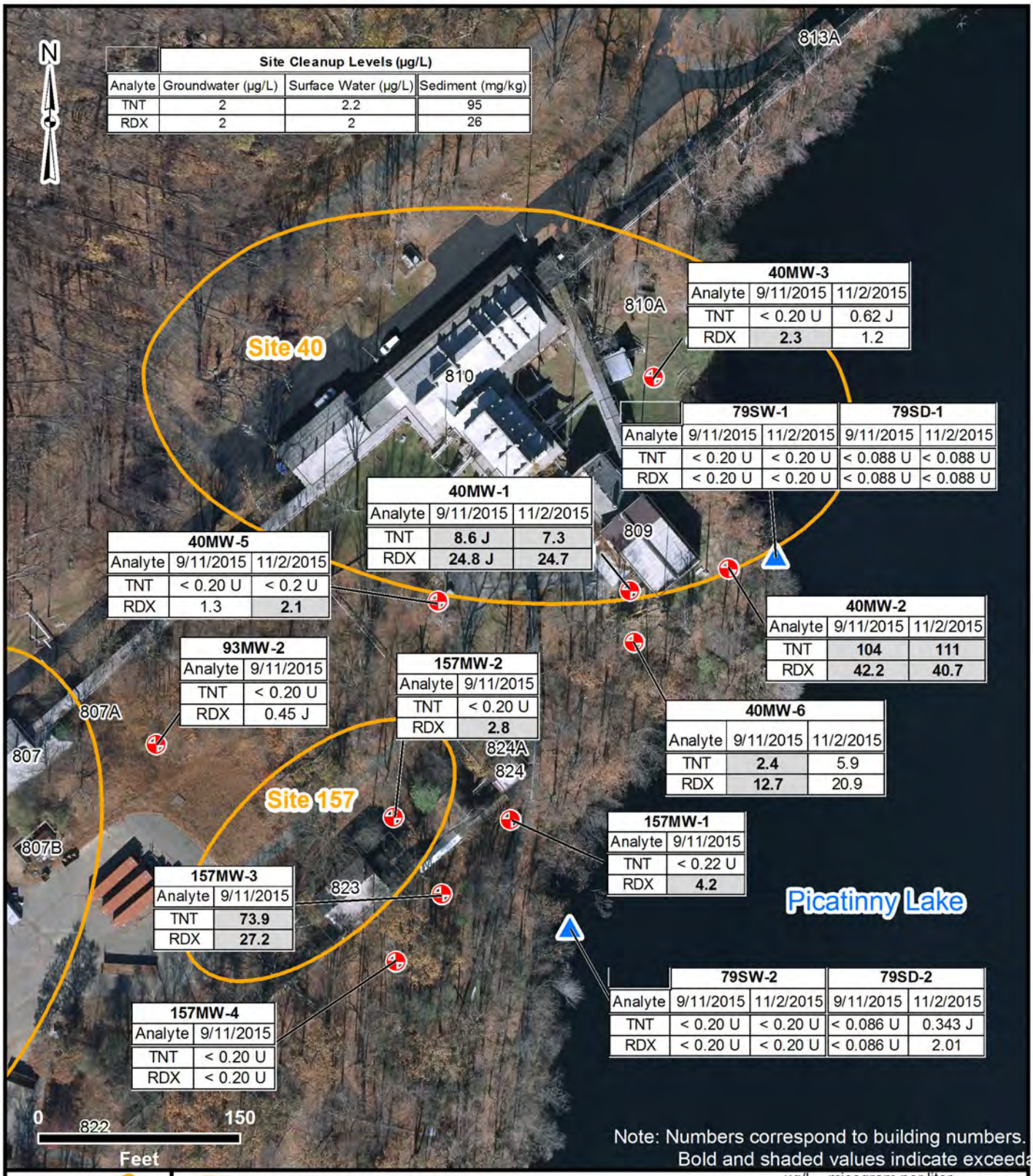

Group 1 (PICA-079)

Monitoring Well

Surface Water and Sediment Sampling Location

ug/L - micogram per liter
mg/kg - microgram per kilogram
J - estimated value
U - non-detect
SCL - site cleanup level
TNT - 2,4,6 Trinitrotouluene
RDX - cyclotrimethylenetrinitramine

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2015 ANNUAL REPORT
GROUP 1 SITES (PICA-079)
PICATINNY ARSENAL

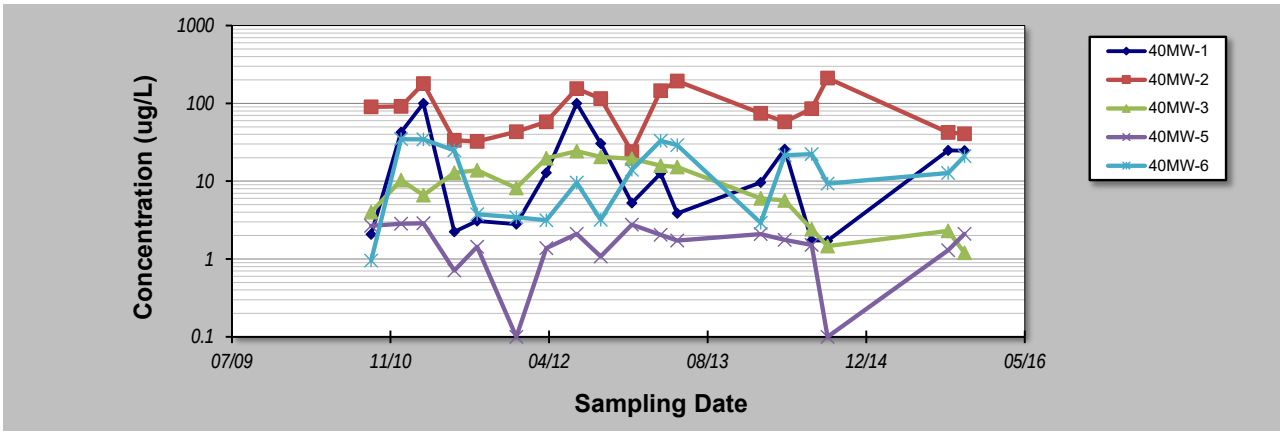
Figure 18-2
Group 1 (PICA-079)
Analytical Results

Figure 18-3a. Mann-Kendall Analysis for Site 40, RDX

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	8-Jan-16	Job ID:	
Facility Name:	Picatinny Group 1 Site 40	Constituent:	RDX
Conducted By:	Janet Mathews-Flynn	Concentration Units:	ug/L

Sampling Point ID:		40MW-1	40MW-2	40MW-3	40MW-5	40MW-6		
Sampling Event	Sampling Date	RDX CONCENTRATION (ug/L)						
1	18-Sep-10	2.08	89.9	3.99	2.67	0.956		
2	21-Dec-10	42.7	91.7	10.3	2.84	34.6		
3	2-Mar-11	100	180	6.6	2.88	34.5		
4	7-Jun-11	2.24	33.5	12.8	0.71	24.8		
5	18-Aug-11	3.08	32.5	13.8	1.44	3.75		
6	20-Dec-11	2.8	43.1	8.2	0.1	3.45		
7	23-Mar-12	12.8	58	19.7	1.38	3.14		
8	27-Jun-12	99.9	155	24.3	2.11	9.59		
9	11-Sep-12	30.4	115	20.5	1.08	3.19		
10	18-Dec-12	5.26	24	19.4	2.77	14		
11	19-Mar-13	12.6	145	15.8	2.05	33.1		
12	10-May-13	3.85	194	15.2	1.73	29		
13	28-Jan-14	9.63	74.4	6.02	2.09	2.92		
14	14-Apr-14	25.8	57.9	5.64	1.76	21.6		
15	8-Jul-14	1.74	85.5	2.42	1.52	22.3		
16	27-Aug-14	1.72	211	1.47	0.1	9.29		
17	11-Sep-15	24.8	42.2	2.3	1.3	12.7		
18	2-Nov-15	24.7	40.7	1.2	2.1	20.9		
19								
20								
Coefficient of Variation:		1.36	0.65	0.70	0.50	0.76		
Mann-Kendall Statistic (S):		-7	-1	-49	-26	-1		
Confidence Factor:		58.9%	50.0%	96.6%	82.6%	50.0%		
Concentration Trend:		No Trend	Stable	Decreasing	Stable	Stable		



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

4 Not detected, used 1/2 of Limit of Detection for analysis

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

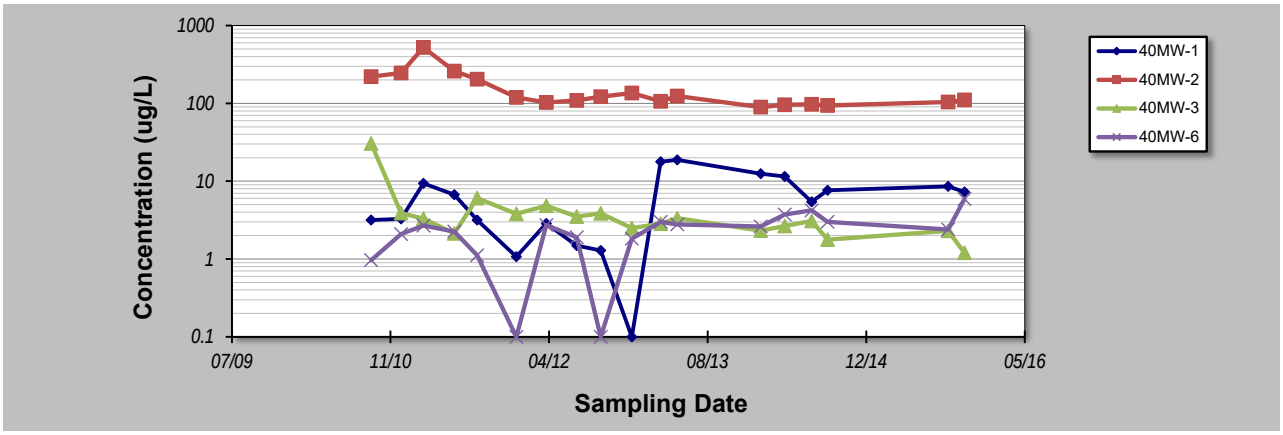
GSI Environmental Inc., www.gsi-net.com

Figure 18-3b. Mann-Kendall Analysis for Site 40, TNT

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	8-Jan-16	Job ID:	
Facility Name:	Picatinny Group 1 Site 40	Constituent:	TNT
Conducted By:	Janet Mathews-Flynn	Concentration Units:	ug/L

Sampling Point ID:		40MW-1	40MW-2	40MW-3	40MW-6			
Sampling Event	Sampling Date	TNT CONCENTRATION (ug/L)						
1	18-Sep-10	3.16	221	30.6	0.966			
2	21-Dec-10	3.29	245	3.9	2.09			
3	2-Mar-11	9.38	523	3.3	2.69			
4	7-Jun-11	6.72	259	2.14	2.26			
5	18-Aug-11	3.16	204	6.06	1.12			
6	20-Dec-11	1.07	119	3.81	0.1			
7	23-Mar-12	2.87	103	4.83	2.72			
8	27-Jun-12	1.49	109	3.52	1.9			
9	11-Sep-12	1.29	122	3.85	0.1			
10	18-Dec-12	0.1	136	2.49	1.83			
11	19-Mar-13	17.8	106	2.85	3			
12	10-May-13	18.8	124	3.34	2.78			
13	28-Jan-14	12.5	89.3	2.31	2.61			
14	14-Apr-14	11.5	96.1	2.66	3.73			
15	8-Jul-14	5.43	97.5	3.09	4.23			
16	27-Aug-14	7.65	94.1	1.77	3			
17	11-Sep-15	8.6	104	2.3	2.4			
18	2-Nov-15	7.3	111	1.2	5.9			
19								
20								
Coefficient of Variation:		0.82	0.67	1.41	0.58			
Mann-Kendall Statistic (S):		24	-81	-87	71			
Confidence Factor:		80.6%	99.9%	>99.9%	99.7%			
Concentration Trend:		No Trend	Decreasing	Decreasing	Increasing			



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

4 Not detected, used 1/2 of Limit of Detection for analysis

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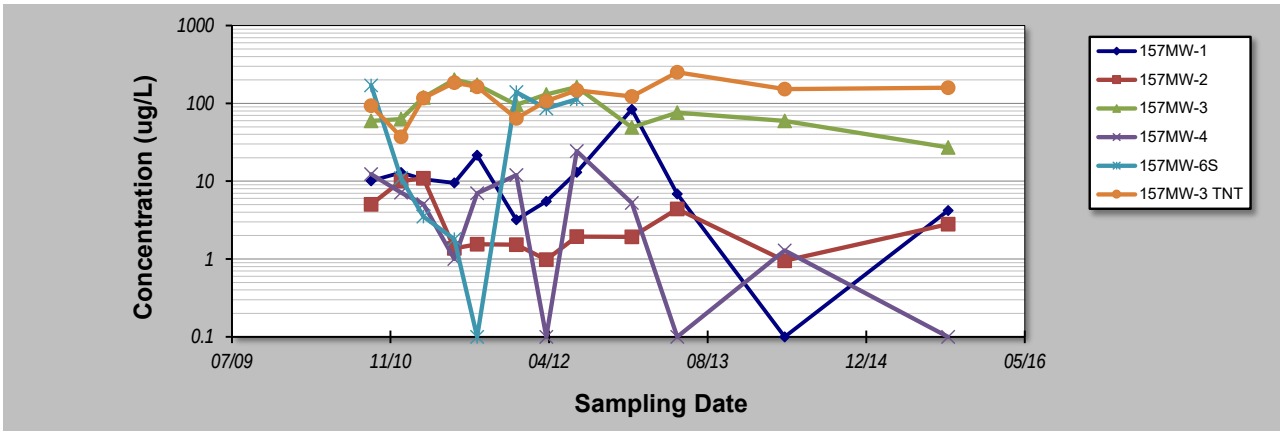
Figure 18-3c. Mann-Kendall Analysis for Site 157, RDX and TNT

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 8-Jan-16
Facility Name: Picatinny Group 1 Site 157
Conducted By: Janet Mathews-Flynn

Job ID:
Constituent: RDX and TNT as noted
Concentration Units: ug/L

Sampling Point ID:		157MW-1	157MW-2	157MW-3	157MW-4	157MW-6S	157MW-3 TNT	
Sampling Event	Sampling Date	RDX AND TNT AS NOTED CONCENTRATION (ug/L)						
1	18-Sep-10	10.1	5.03	59.3	12.3	170	93.2	
2	21-Dec-10	12.9	10	63	7.14	11	37.1	
3	2-Mar-11	10.6	10.9	119	5.06	3.5	117	
4	7-Jun-11	9.51	1.37	202	1	1.8	184	
5	18-Aug-11	21.5	1.55	174	7	0.1	163	
6	20-Dec-11	3.2	1.53	96	12	140	64	
7	23-Mar-12	5.49	0.98	130	0.1	85.8	107	
8	27-Jun-12	13	1.94	162	24.3	113	147	
9	18-Dec-12	83.6	1.92	49	5.26		123	
10	10-May-13	6.86	4.41	76.1	0.1		251	
11	14-Apr-14	0.1	0.95	59.3	1.29		153	
12	11-Sep-15	4.2	2.8	27.2	0.1		159	
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.48	0.95	0.55	1.14	1.07	0.43	
Mann-Kendall Statistic (S):		-16	-14	-17	-25	-2	26	
Confidence Factor:		84.5%	81.0%	86.0%	95.0%	54.8%	95.7%	
Concentration Trend:		No Trend	Stable	Stable	Prob. Decreasing	No Trend	Increasing	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

4 Not detected, used 1/2 of Limit of Detection for analysis

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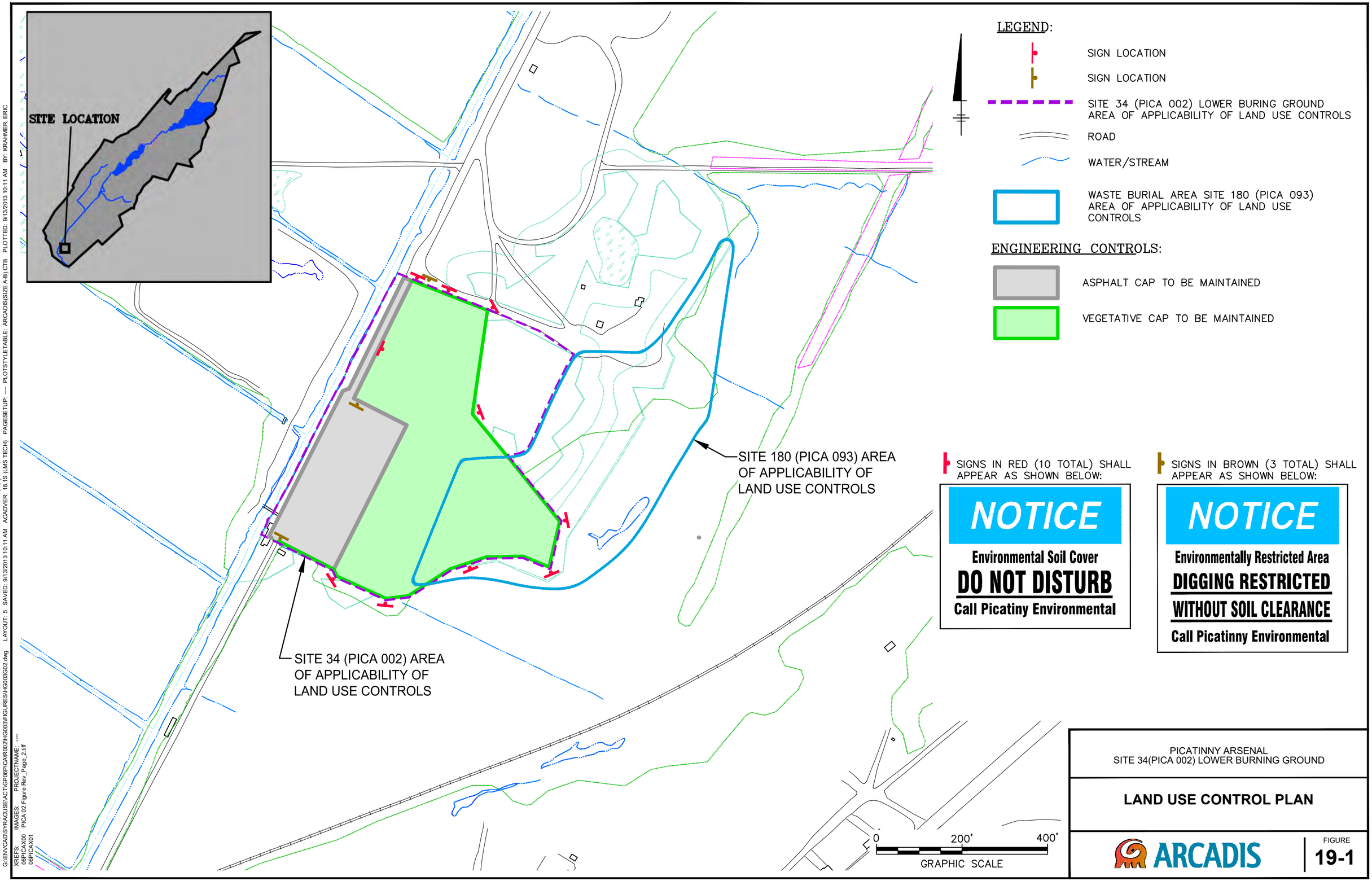


PICATINNY ARSENAL
SITE 34(PICA 002) LOWER BURNING GROUND

LAND USE CONTROL PLAN

ARCADIS

FIGURE
19-1

CITY: NEWTOWN, PA DIV/GROUP: ENV DB: LD: M. WASILEWSKI PIC: T. TALELE PM: T. LLEWELLYN TM: R. WHITE LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\GP06\PICA\R002\HG003\FIGURES\HG003G02.dwg LAYOUT: 5 SAVED: 9/13/2013 10:11 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ARCADIS(SIZE A-B).CTB PLOTTED: 9/13/2013 10:11 AM BY: KRAHMER, ERIC
XREFS: 06PICAX00 06PICAX01 IMAGES: PICA 02 Figure Rev_Page_2.tiff PROJECTNAME: ----

LEGEND:

- ASPHALT CAP
- VEGETATED CAP
- BASIN
- LIMITS OF DISTURBANCE - CONSTRUCTION
- LIMITS OF REMEDIAL ACTIONS
- DRAINAGE SWALE

0 125 250 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE: 2007 NEW JERSEY ORTHOPHOTOS

PICATINNY ARSENAL, MORRIS COUNTY, NEW JERSEY

NJDEP DLUR PERMIT EQUIVALENCY PACKAGE

HYBRID CAP

ARCADIS

FIGURE **19-2a**

CITY: MPLS DIV/GROUP: IM DB: MG LD: AD
PICATINNY (GP06PICA.SITE)
Path: G:\GIS\Projects\PicatinnyGIS\gisdata\GISProjects\PICA002\ArcMap\2013\Hybrid_Cap_20130820.mxd

NOTES AND REFERENCES

1. AS-BUILT INFORMATION PERFORMED BY GTS CONSULTANTS, INC. ON AUGUST 21, 2014 AND AUGUST 22, 2014.
2. ALL CONSTRUCTION DESIGN PARAMETERS ARE IN ACCORDANCE WITH A SET OF PLANS PREPARED BY ARCADIS U.S., INC. ENTITLED, "CONSTRUCTION DRAWINGS, SITE 34 (PICA 002) LOWER BURNING GROUND, PICATINNY ARSENAL, NEW JERSEY, AUGUST 2013."
3. HORIZONTAL DATUM: NJ STATE PLANE (NAD'83)
4. VERTICAL DATUM: NAVD'88
5. ALL FIELD MEASUREMENTS WERE BASED ON EXISTING CONTROL POINTS PER THE ABOVE REFERENCED PLANS.
6. ASPHALT CAP LOCATION AND ELEVATIONS WERE SURVEYED BY GTS CONSULTANTS, INC. ON SEPTEMBER 12, 2014.

FIGURE 19-2b

No.	Date	Revision	DRWN BY	CHKD BY
1	9/15/14	ADDED ASPHALT CAP AND MONITORING WELLS	SC	FLV

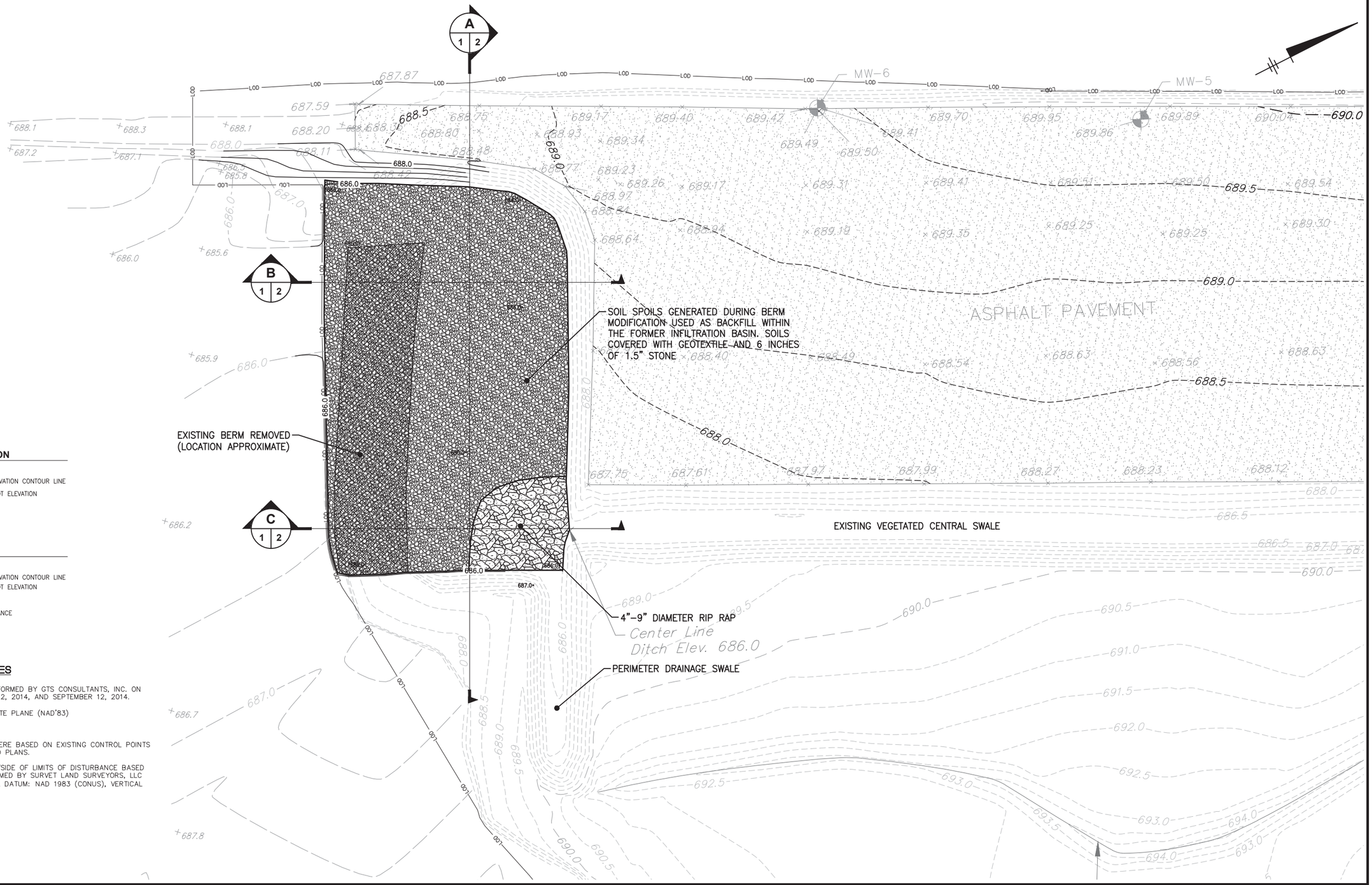
40' 20' 0' 40' 80'
GRAPHIC SCALE

FREDRICK L. VOSS
New Jersey Professional Engineer and Land Surveyor License No. 25797

GTS CONSULTANTS
Engineering, Surveying & Mapping
State of New Jersey Certificate of Authorization 24GA28021900
2 Monmouth Avenue, Unit A-1
Freehold, New Jersey 07728
(732) 409-0900 Fax (732) 409-0927

FINAL AS-BUILT VERIFICATION
PICATINNY ARSENAL
LOWER BURNING GROUND SITE 34
TOWNSHIP OF ROCKAWAY
MORRIS COUNTY NEW JERSEY

DATE: 8/22/2014	SCALE: 1" = 40'
DRAWN: SC	CHECKED: FLV
FILE NAME: 14-127.dwg	PROJECT: 14-127
1 of 1	



LEGEND

MODIFICATION

- 687.5 — LAND SURFACE ELEVATION CONTOUR LINE
- *686.0 — LAND SURFACE SPOT ELEVATION
- RIP-RAP
- CLEAN STONE

EXISTING

- 53 — LAND SURFACE ELEVATION CONTOUR LINE
- × 689.26 — LAND SURFACE SPOT ELEVATION
- PAVEMENT
- LIMITS OF DISTURBANCE

NOTES AND REFERENCES

1. AS-BUILT INFORMATION PERFORMED BY GTS CONSULTANTS, INC. ON AUGUST 21, 2014, AUGUST 22, 2014, AND SEPTEMBER 12, 2014.
2. HORIZONTAL DATUM: NJ STATE PLANE (NAD'83)
3. VERTICAL DATUM: NAVD'88
4. ALL FIELD MEASUREMENTS WERE BASED ON EXISTING CONTROL POINTS PER THE ABOVE REFERENCED PLANS.
5. TOPOGRAPHIC FEATURES OUTSIDE OF LIMITS OF DISTURBANCE BASED UPON FIELD SURVEY PERFORMED BY SURVET LAND SURVEYORS, LLC (MAY 10, 2010). HORIZONTAL DATUM: NAD 1983 (CONUS), VERTICAL DATUM: NAVD 1998.

CITY: NEWTOWN, PA DIV/GROUP: ENV LD: M. WASILEWSKI PIC: E. CARMAN PM: E. ZIMMERMAN TM: K. LIAO LYR:ON=*;OFF=*REF*
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XREFS: GP06PICAX01 IMAGES: PROJECTNAME: ----

1"=20' (20' 0 20' 40')

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd
			MW	KM

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.

Professional Engineer's Name: DAVID A. CABALLERO
Professional Engineer's No.: 24GE04919300
State: NJ | Date Signed: - | Project Mgr.: TC
Designed by: DC | Drawn by: MW | Checked by: KM

ARCADIS
ARCADIS U.S., INC.
NEW JERSEY ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 24GA27939600

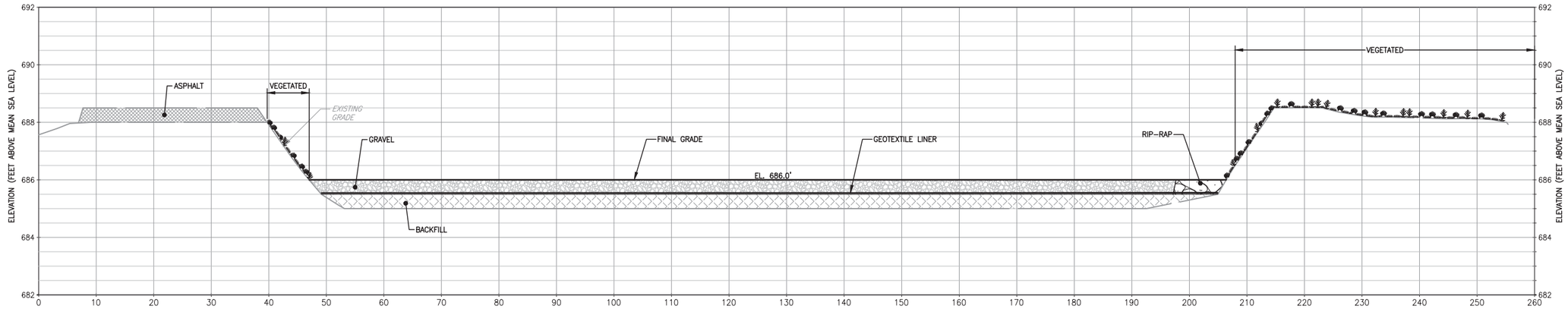
SITE 34 (PICA 002) LOWER BURNING GROUND • PICATINNY ARSENAL, NEW JERSEY
CONSTRUCTION DRAWINGS

STORMWATER MANAGEMENT SYSTEM MODIFICATIONS

ARCADIS Project No. GP06PICA.R002.HG003
Date: NOVEMBER 2014

ARCADIS
1114 BENFIELD BLVD., SUITE A
MILLERSVILLE, MD 21108
TEL. 410.987.0032

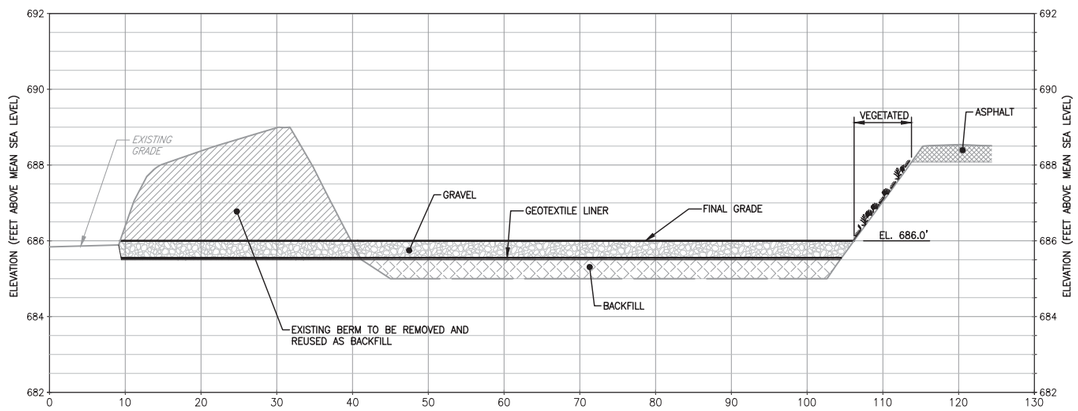
FIGURE
19-3a



A SECTION

1 2

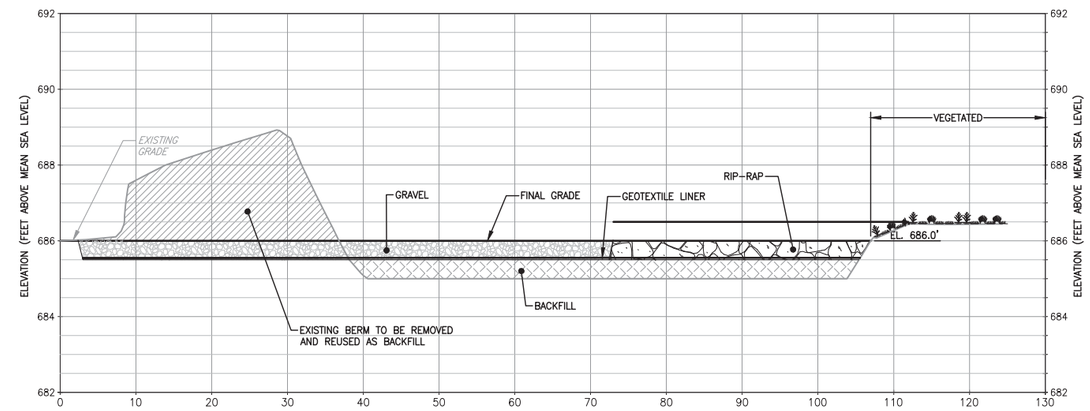
HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=2'



B SECTION

1 2

HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=2'



C SECTION

1 2

HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=2'

CITY: NEWTOWN, PA DIV/GROUP: ENV LD: M. WASILEWSKI PIC: E. CARMAN PM: E. ZIMMERMAN TM: K. LIAO LYR:ON=*;OFF=*REF*
G:\ENVCAD\Newtown\ACT\GP06PICA\R002\KG003\AS-BUILT\DRAWING 1.2 - STORMWATER MANAGEMENT SYSTEM MODIFICATIONS.dwg LAYOUT: 2 SAVED: 12/19/2014 4:53 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ARCADIS (SIZE C-E).CTB PLOTTED: 12/19/2014
4:53 PM BY: WASILEWSKI, MATT
XREFS: IMAGES: PROJECTNAME: ----
GP06PICAX01

0 10 20 30
HORIZONTAL SCALE: 1"=10'
0 2 4 6
VERTICAL SCALE: 1"=2'

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd
			MW	KM

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.

Professional Engineer's Name: DAVID A. CABALLERO
Professional Engineer's No.: 24GE04919300

State	Date Signed	Project Mgr.
NJ	-	TC
Designed by	Drawn by	Checked by
DC	MW	KM

ARCADIS

ARCADIS U.S., INC.
NEW JERSEY ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 24GA27939600

SITE 34 (PICA 002) LOWER BURNING GROUND • PICATINNY ARSENAL, NEW JERSEY
CONSTRUCTION DRAWINGS

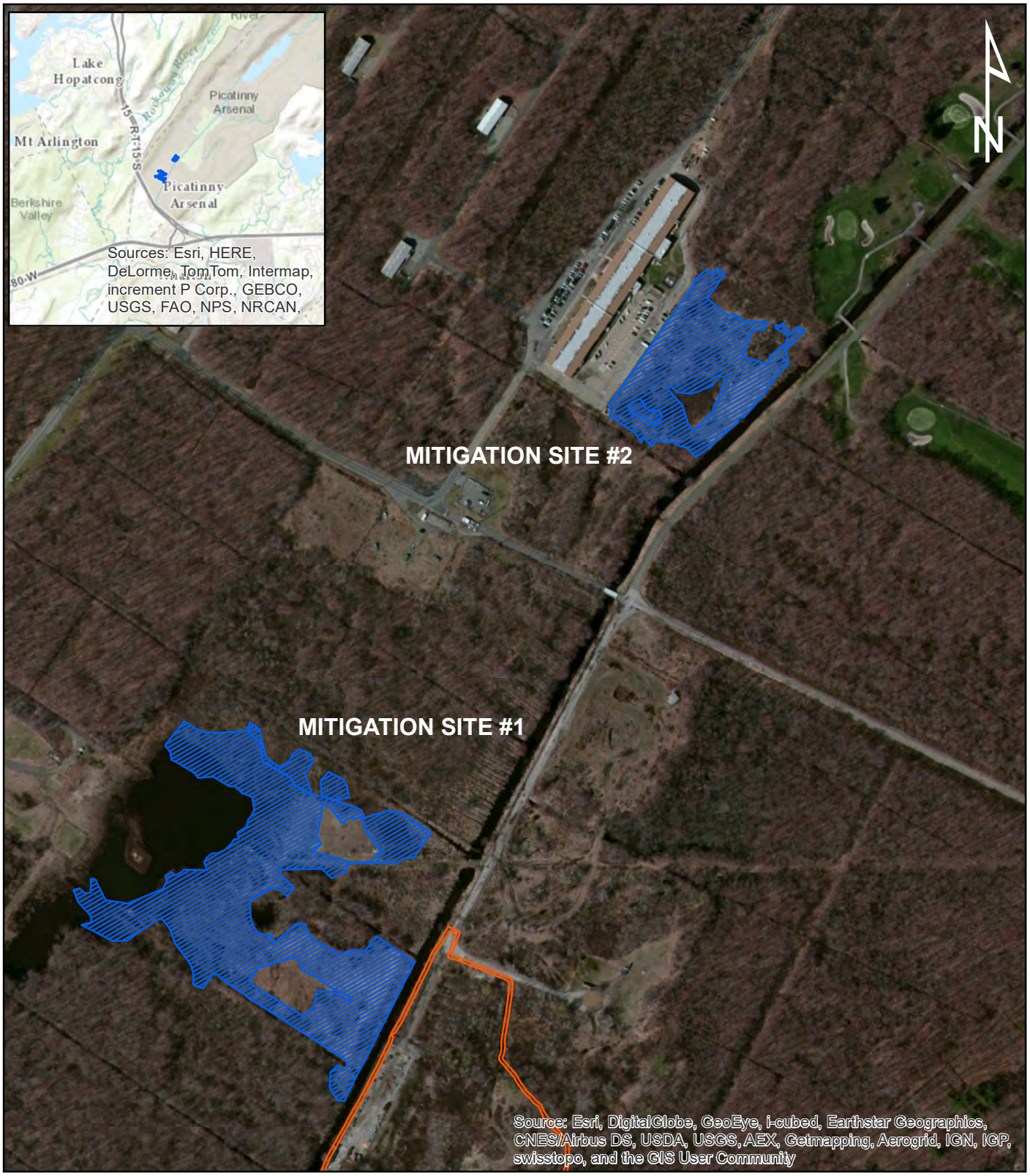
CROSS SECTIONS

ARCADIS Project No.
GP06PICA.R002.HG003

Date
NOVEMBER 2014

ARCADIS
1114 BENFIELD BLVD., SUITE A
MILLERSVILLE, MD 21108
TEL. 410.987.0032

FIGURE
19-3b



Legend

Remedial Action Limit of Disturbance

Mitigaiton Sites

0 250 500 1,000 Feet

PICATINNY ARSENAL, MORRIS COUNTY, NEW JERSEY

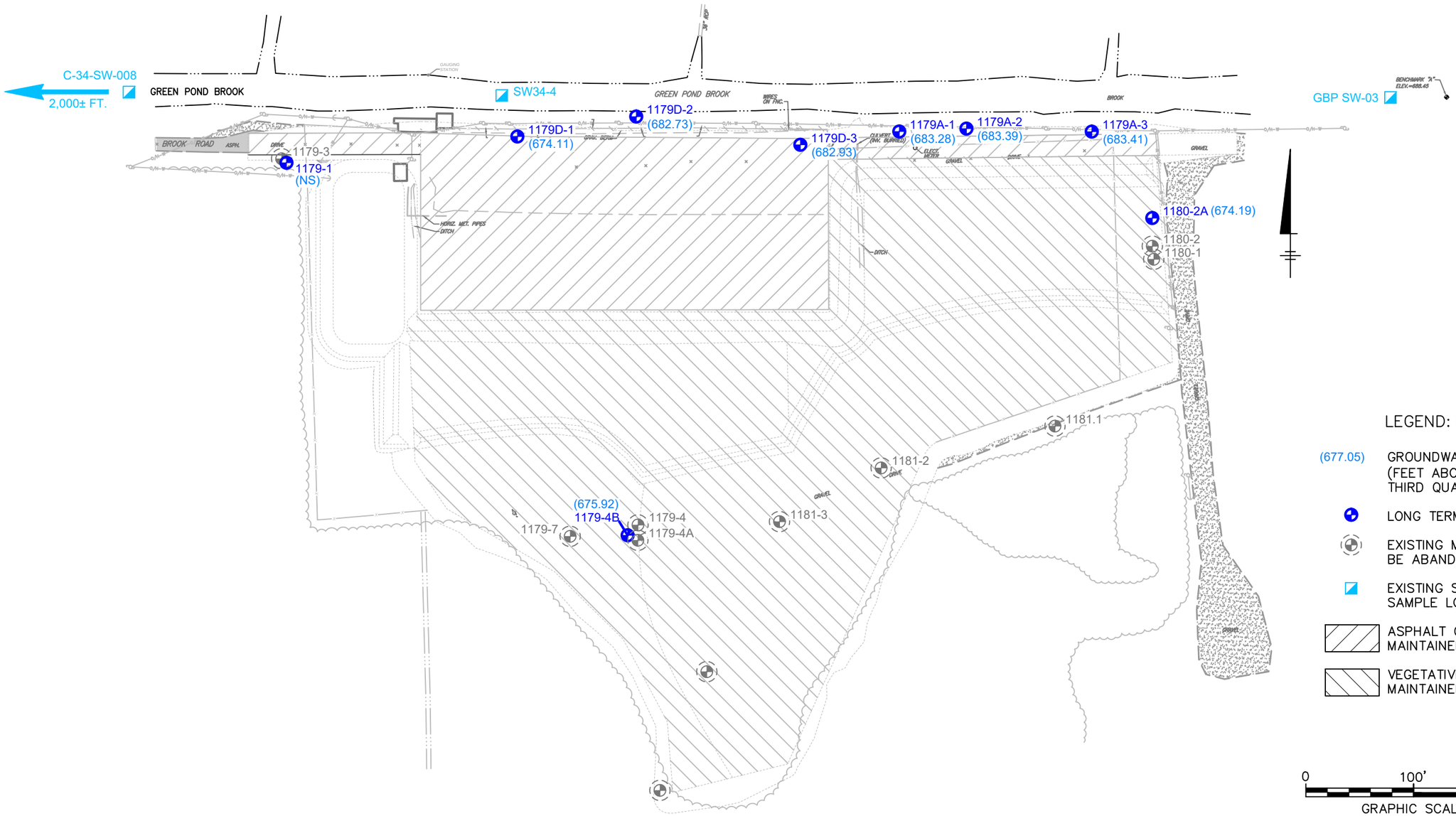
SITE 34 (PICA-002) LOWER BURNING GROUND

MITIGATION SITE LOCATION MAP

ARCADIS

FIGURE **19-4**

CITY: CRAN DIV/GROUP: ENVR DJP
GP06PICA.R002



LEGEND:

(677.05) GROUNDWATER ELEVATIONS (FEET ABOVE MEAN SEA LEVEL) THIRD QUARTER 2014

LONG TERM MONITORING WELL

EXISTING MONITORING WELL TO BE ABANDONED

EXISTING SURFACE WATER SAMPLE LOCATION

ASPHALT CAP TO BE MAINTAINED

VEGETATIVE CAP TO BE MAINTAINED

0 100' 200'

GRAPHIC SCALE

NOTES:

1. 1179–1 SAMPLED IN LIEU OF 1179–3. 1179–3 COULD NOT BE LOCATED AND IS BELIEVED TO BE ABANDONED.
2. NS – NOT SURVEYED
3. GROUNDWATER ELEVATIONS COLLECTED 9/26/2014.

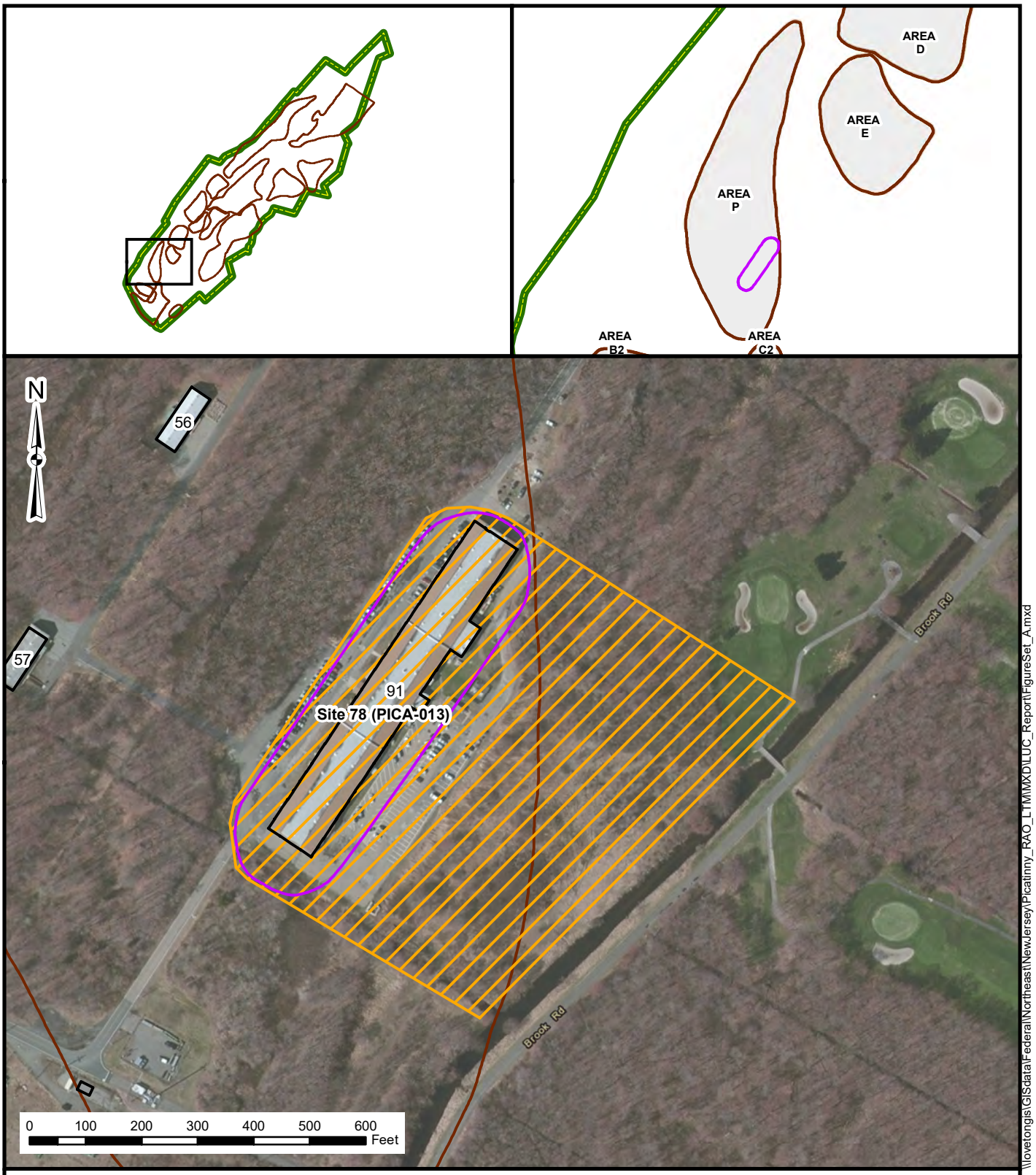
PICATINNY ARSENAL
SITE 34(PICA-002) LOWER BURNING GROUND

LONG TERM MONITORING WELL NETWORK AND SURFACE WATER MONITORING LOCATIONS

ARCADIS

FIGURE
19-5

CITY: NEWTOWN, PA/CRANBURY-NJ DIV/GROUP: ENVCAD DB: WASILEWSKI/JMEYER LD: PIC: T. TALELE PM: T. LLEWELLYN TM: R. WHITE LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\CRANBURY\ACT\GP06\PICA\LM1414\MD14\PICA 002\GP06PICAG02.dwg LAYOUT: 2 SAVED: 10/29/2014 11:22 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/29/2014 11:24 AM BY: MEYER, JULIE
XREFS: IMAGES: PROJECTNAME: ----
06PICAX00



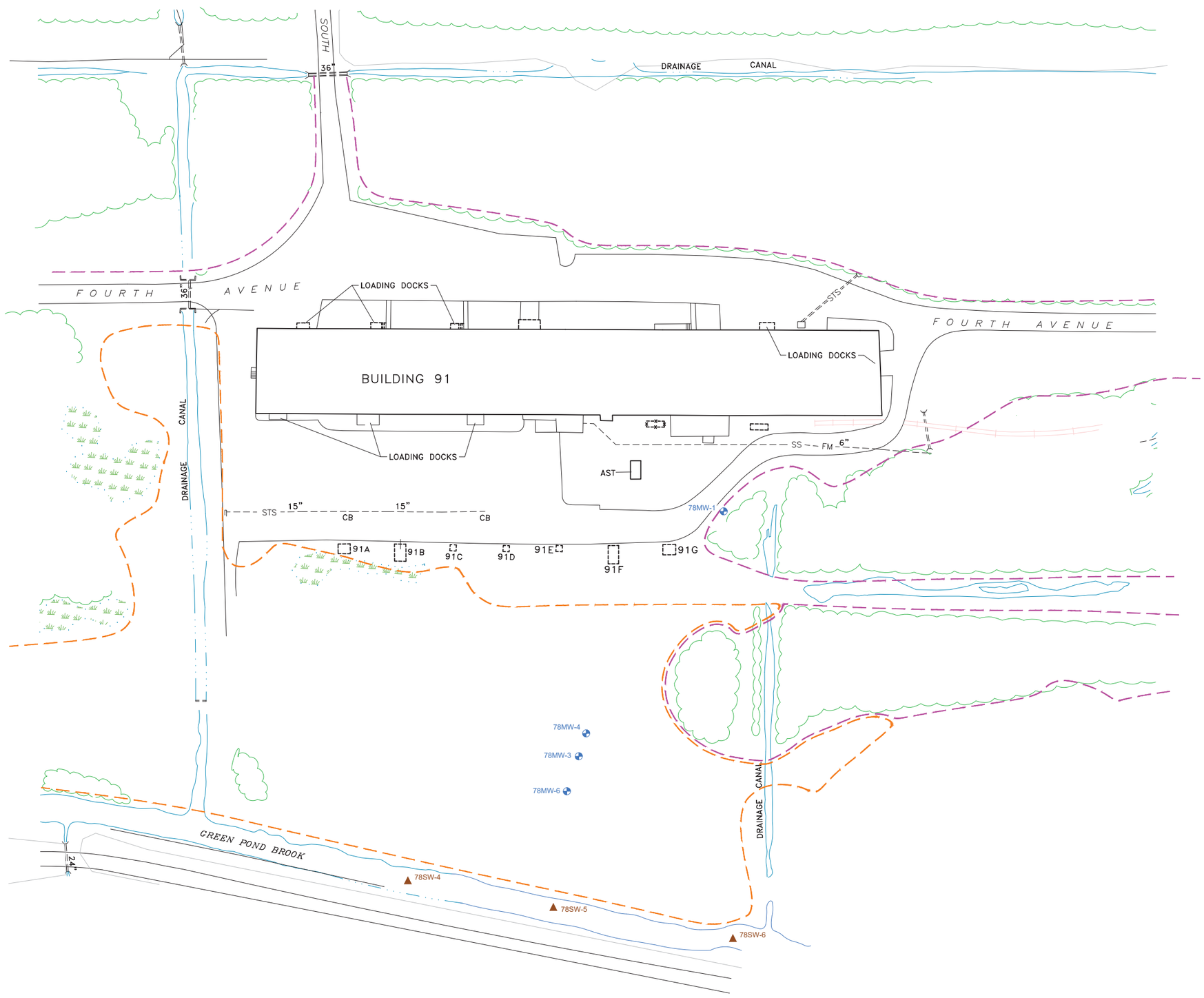
Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location
- LUC Area of Applicability

\\lovetongis\GISdata\Federal\Northeast\NewJersey\Picatinny_RAO_LTM\MXD\LUC_Report\FigureSet_A.mxd

ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure 20-1
Site 78 (PICA-013)



LEGEND:

- 78MW-1 — MONITORING WELL
- 78SW-3 — SURFACE WATER SAMPLE LOCATION
- FRESHWATER FORESTED AND SHRUB WETLAND BOUNDARY
- FRESHWATER EMERGENT WETLAND BOUNDARY

NOTE:

WETLAND BOUNDARIES ARE APPROXIMATE AND WERE ESTIMATED USING AN ARMY PROVIDED GIS LAYER.

0 80' 160'
GRAPHIC SCALE

SITE 78 (PICA-013) GROUNDWATER AND SURFACE WATER
PICATINNY ARSENAL, DOVER, NEW JERSEY
2014 ANNUAL MONITORING REPORT

GROUNDWATER AND SURFACE WATER MONITORING LOCATIONS FOR MNA

ARCADIS

FIGURE
20-2

CITY:MILLERSVILLE, MD (CRANBURY, NJ) DIV/GROUP:ENVCAD DB:J.GOFORTH, JMEYER LD:J.GOFORTH PIC:T.TALELE PM:T.LLEWLLYN TM:B.STEMPOWSKI LYR:(Opt)ON=*;OFF=*REF*
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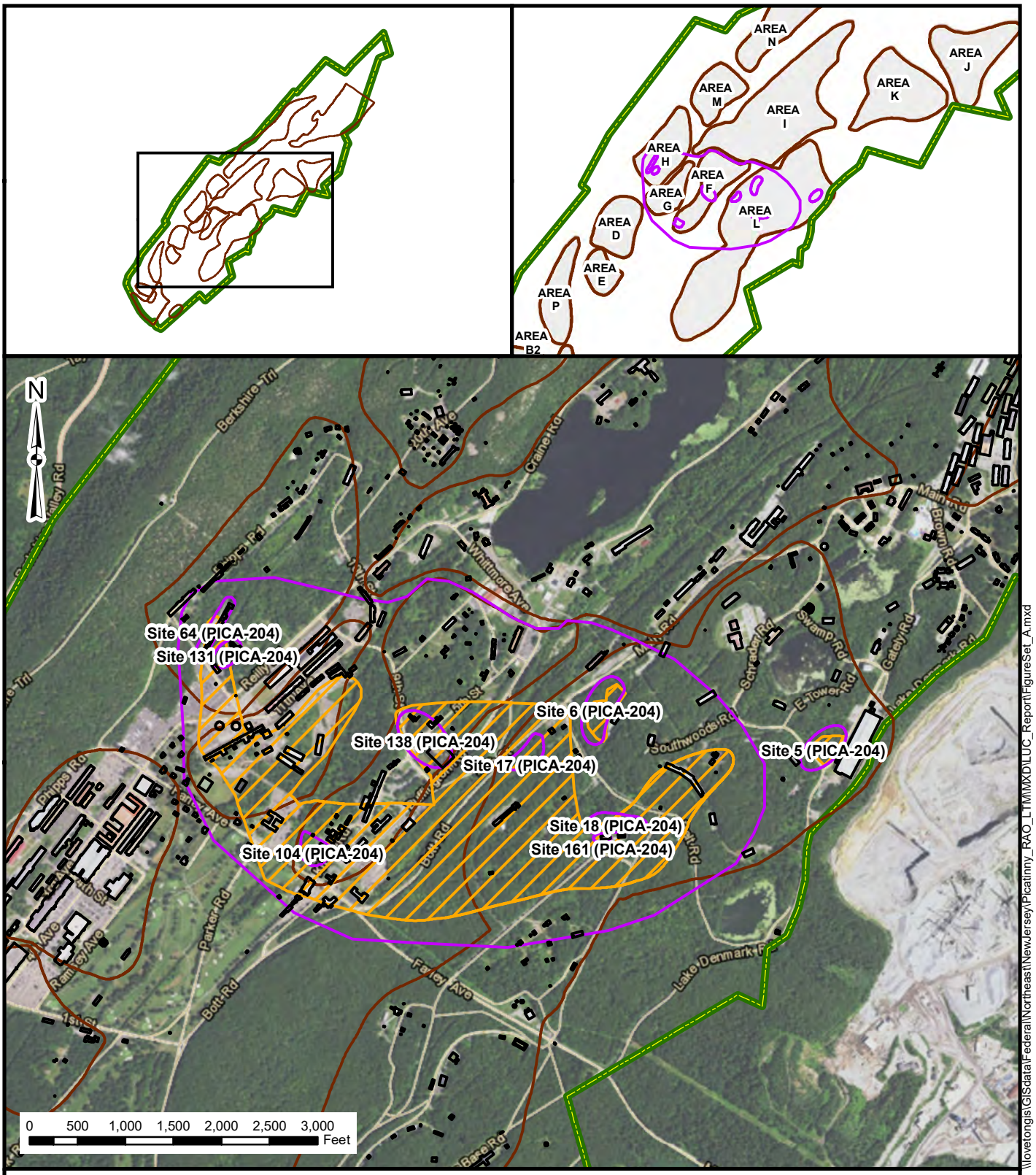
XREFS: IMAGES: PROJECTNAME: ----
GP06PICAX13



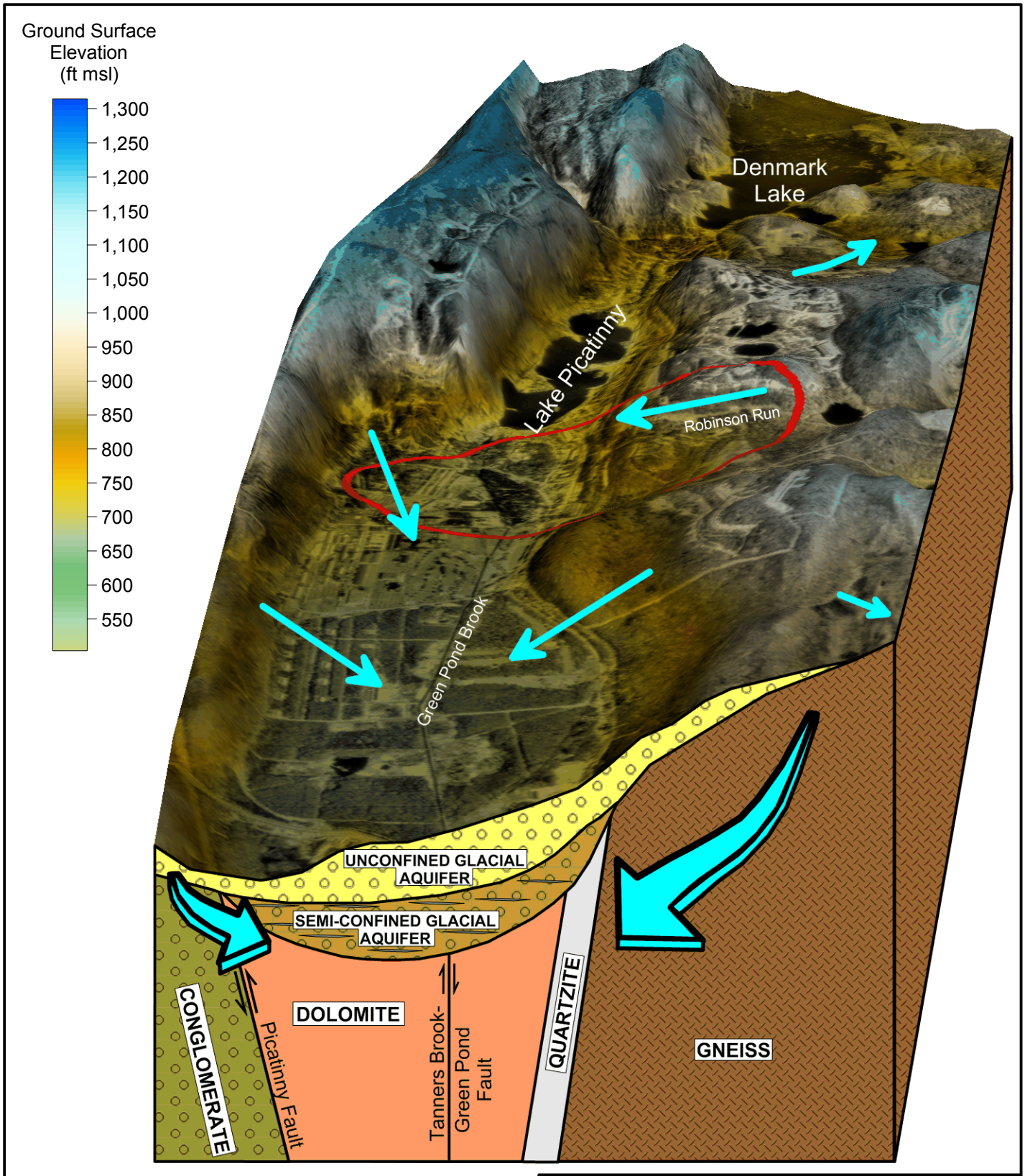
Legend

- Installation Boundary
- Area Boundary
- Building
- Approximate Site Location
- LUC Area of Applicability

\\lovetongis\GISdata\Federal\Northeast\NewJersey\Picatinny_RAO_LTM\MXD\LUC_Report\FigureSet_A.mxd

ANNUAL LAND USE CERTIFICATION
AND NFA SITE MONITORING REPORT
PICATINNY ARSENAL

Figure 21-1
Mid-Valley (PICA-204)



LEGEND

General Groundwater Flow Direction

Fault Direction Indicator

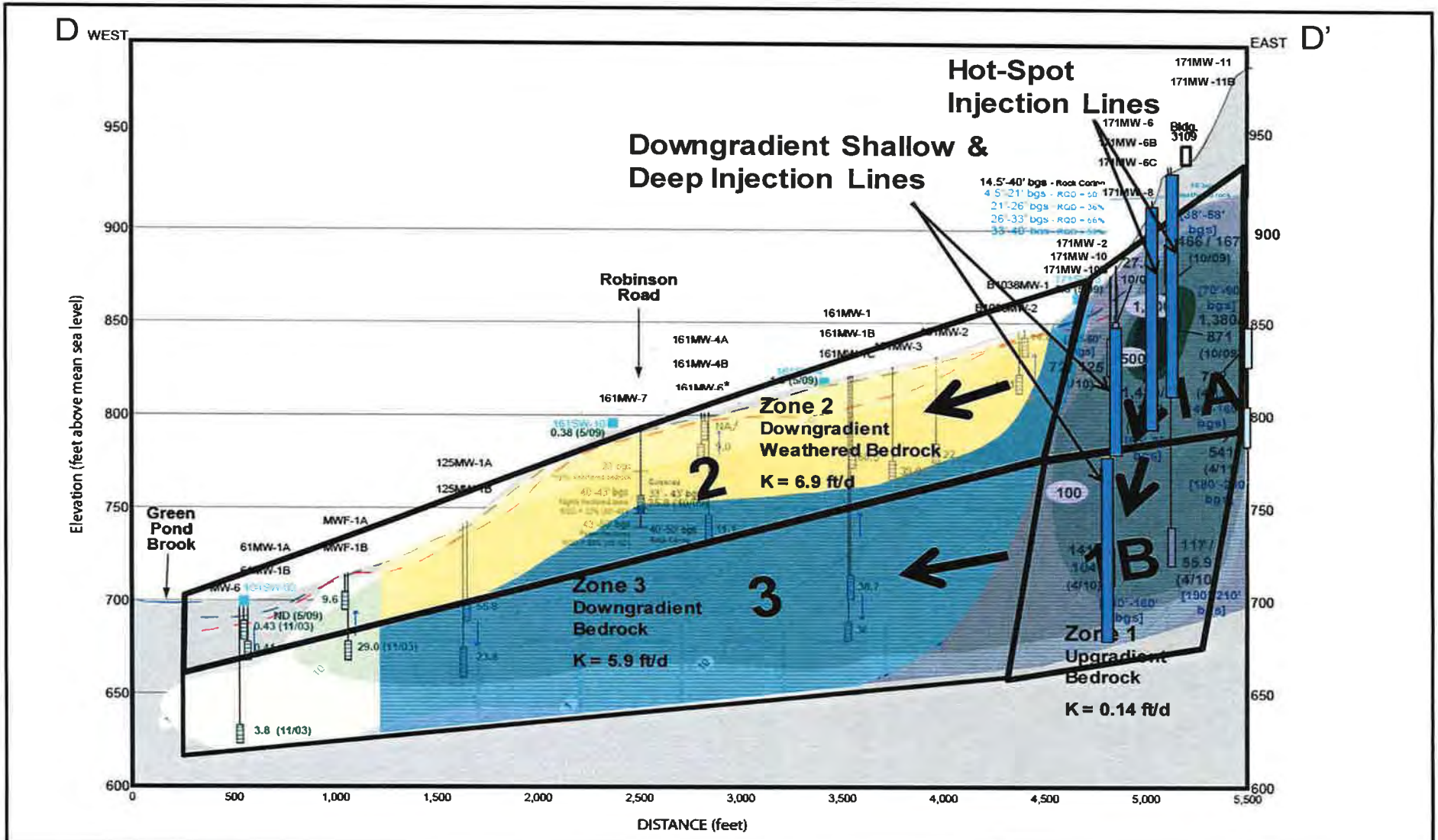
Mid-Valley Area

MID-VALLEY GROUNDWATER (PICA 204)
PICATINNY ARSENAL, NEW JERSEY

CONCEPTUAL SITE MODEL

ARCADIS

FIGURE
21-2



LEGEND:

161MW-1	Well Or Sample Name
— —	2004 Water Level; Upper Unit
— —	2004 Water Level; Lower Unit
—10—	Trichloroethene (TCE) Isoconcentration (ug/L)
10	TCE Concentration (ug/L)
▤	Screened Interval
■	Surface Water Sample
ND	Not Detected
NA	Not Analyzed

NOTES:

RQD = Rock quality designation

' bgs = Feet below ground surface

Concentrations from September/October 2008 unless otherwise indicated.

* Well located off plume axis

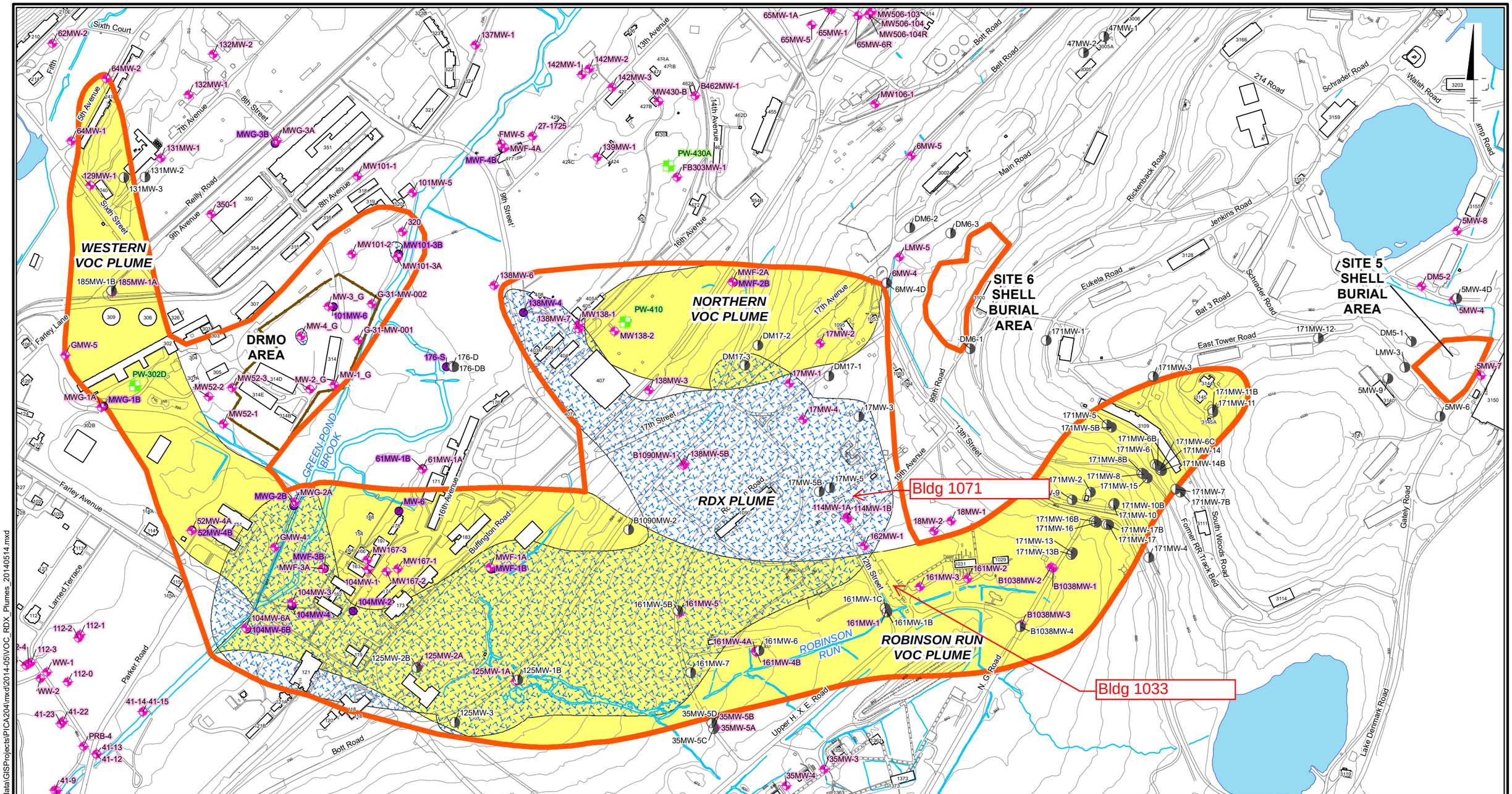
↑ Direction of vertical hydraulic gradient based on 2004 water levels

MID-VALLEY GROUNDWATER (PICA-204)
PICATINNY ARSENAL, NEW JERSEY

Layout of Focused Enhanced Reductive Dechlorination (ERD) Injection Well Network in Cross Section

ARCADIS

FIGURE 21-3



LEGEND:

- 161MW-7 — BEDROCK
- 104MW-4 — LOWER SEMI-CONFINED WELL
- 104MW-1 — UNCONFINED AND/OR WEATHERED BEDROCK UNIT WELL
- PW410 — SUPPLY WELL
- BOUNDARY FOR AREA OF ATTAINMENT AND LAND USE CONTROL
- RDX PLUME
- VOC PLUME
- AREA
- ROAD
- BUILDING
- FORMER BUILDING
- WATER FEATURE
- TOPOGRAPHY

0 200 400
SCALE IN FEET

MID-VALLEY GROUNDWATER (PICA-204)
PICATINNY ARSENAL, NEW JERSEY

MID-VALLEY GROUNDWATER VOC & RDX PLUMES

ARCADIS

FIGURE
21-4

CITY: MPLS DIV/GROUP: IM DB: MG LD: EC
Picatinny (GP06PICA SITE)
Path: Z:\GISPROJECTS_ENV\PicatinnyGIS\gisdata\GISProjects\PICA204\mxd\2014-05\VOC_RDX_Plumes_20140514.mxd

CITY: MPLS DIV/GROUP: IM DB: MG LD: EC
Picatinny (GP06PICA.SITE)
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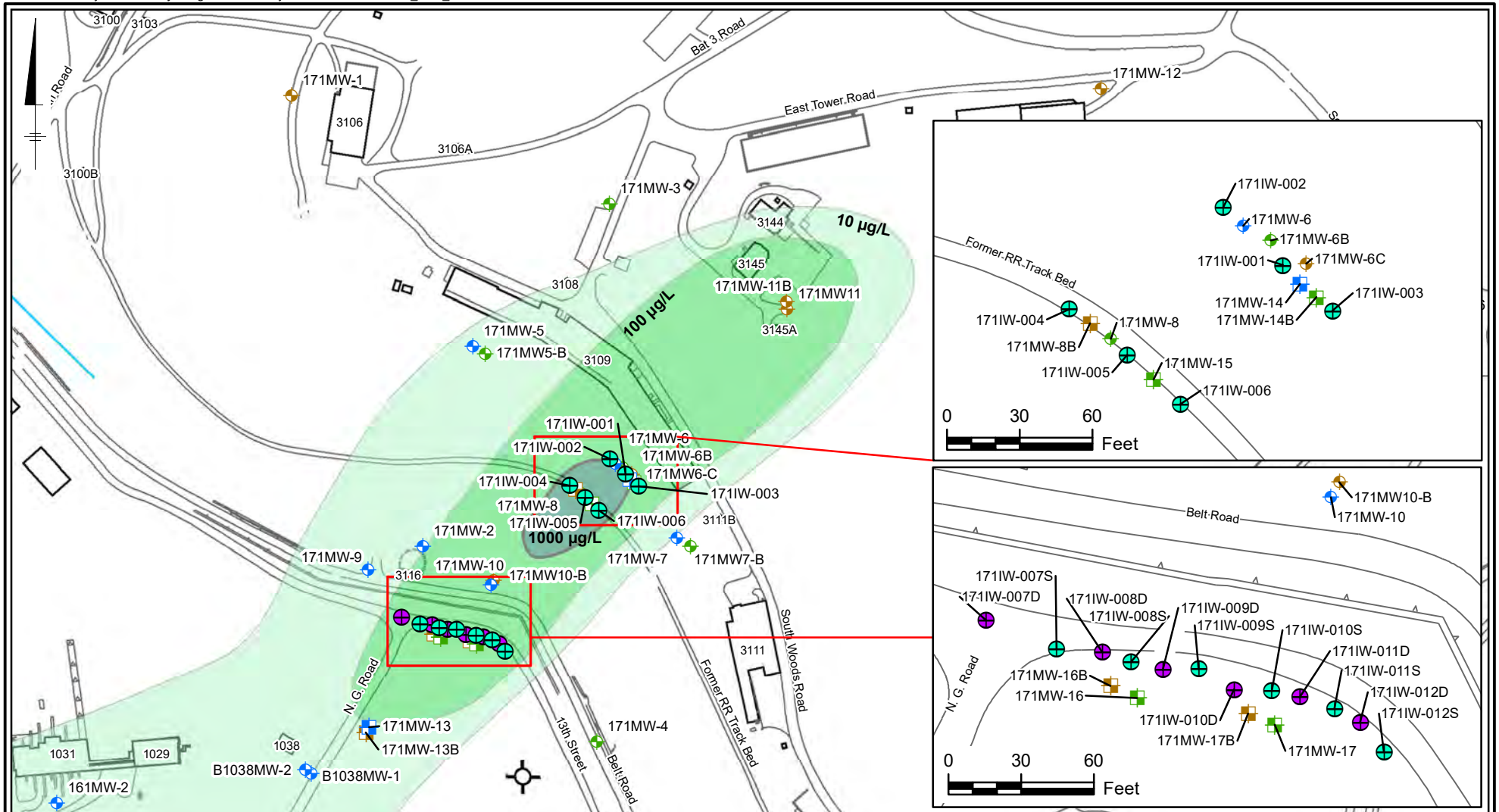

LEGEND:

- EXISTING SHALLOW BEDROCK WELL, < 65 FT DEPTH BGS
- EXISTING INTERMEDIATE BEDROCK WELL, 65 - 100 FT DEPTH BGS
- EXISTING DEEP BEDROCK WELL, > 100 FT DEPTH BGS
- ROAD
- BUILDING
- NEW SHALLOW INJECTION WELL
- NEW DEEP INJECTION WELL
- NEW SHALLOW MONITORING WELL
- NEW INTERMEDIATE MONITORING WELL
- NEW DEEP MONITORING WELL

0 230 460 Feet
GRAPHIC SCALE

MID-VALLEY GROUNDWATER (PICA-204)
PICATINNY ARSENAL, NEW JERSEY

LAYOUT OF FOCUSED ENHANCED REDUCTIVE DECHLORINATION (ERD) WELL NETWORK

ARCADIS

FIGURE
21-5

WESTERN VOC PLUME

NORTHERN VOC PLUME

ROBINSON RUN VOC PLUME

DRMO AREA

SITE 6 SHELL BURIAL AREA

SITE 5 SHELL BURIAL AREA

WEATHERED ZONE UNSATURATED

ERD PERFORMANCE MONITORING LOCATIONS

LEGEND:

- SUPPLY WELL
- UNKNOWN WELL CONSTRUCTION
- BEDROCK
- UNCONFINED AND/OR WEATHERED BEDROCK UNIT WELL
- UPPER SEMI-CONFINED WELL
- LOWER SEMI-CONFINED WELL
- INJECTION WELL
- SURFACE WATER SAMPLE
- AREA
- ROAD
- BUILDING
- WATER FEATURE
- VOC CONCENTRATION GREATER THAN 1µg/L
- WEATHERED BEDROCK/UNCONFINED AQUIFER
- BEDROCK
- WELL ID ERD PERFORMANCE MONITORING
- WELL ID VOC PLUME MNA NETWORK
- WELL ID MID-VALLEY MONITORING NETWORK WELLS
- APPROXIMATE GROUNDWATER FLOW DIRECTION

0 200 400
SCALE IN FEET

ACRONYMS:

µg/L - MICROGRAMS PER LITER
ERD - ENHANCED REDUCTIVE DECHLORINATION
MNA - MONITORED NATURAL ATTENUATION
VOC - VOLATILE ORGANIC COMPOUNDS

MID-VALLEY GROUNDWATER (PICA-204)
PICATINNY ARSENAL, NEW JERSEY

GROUNDWATER MONITORING NETWORK FOR VOC PLUMES

ARCADIS

FIGURE
21-6

CITY: MPLS DIV/GROUP: IM DB: MG LD: EC
Picatinny (GP08PICA SITE)
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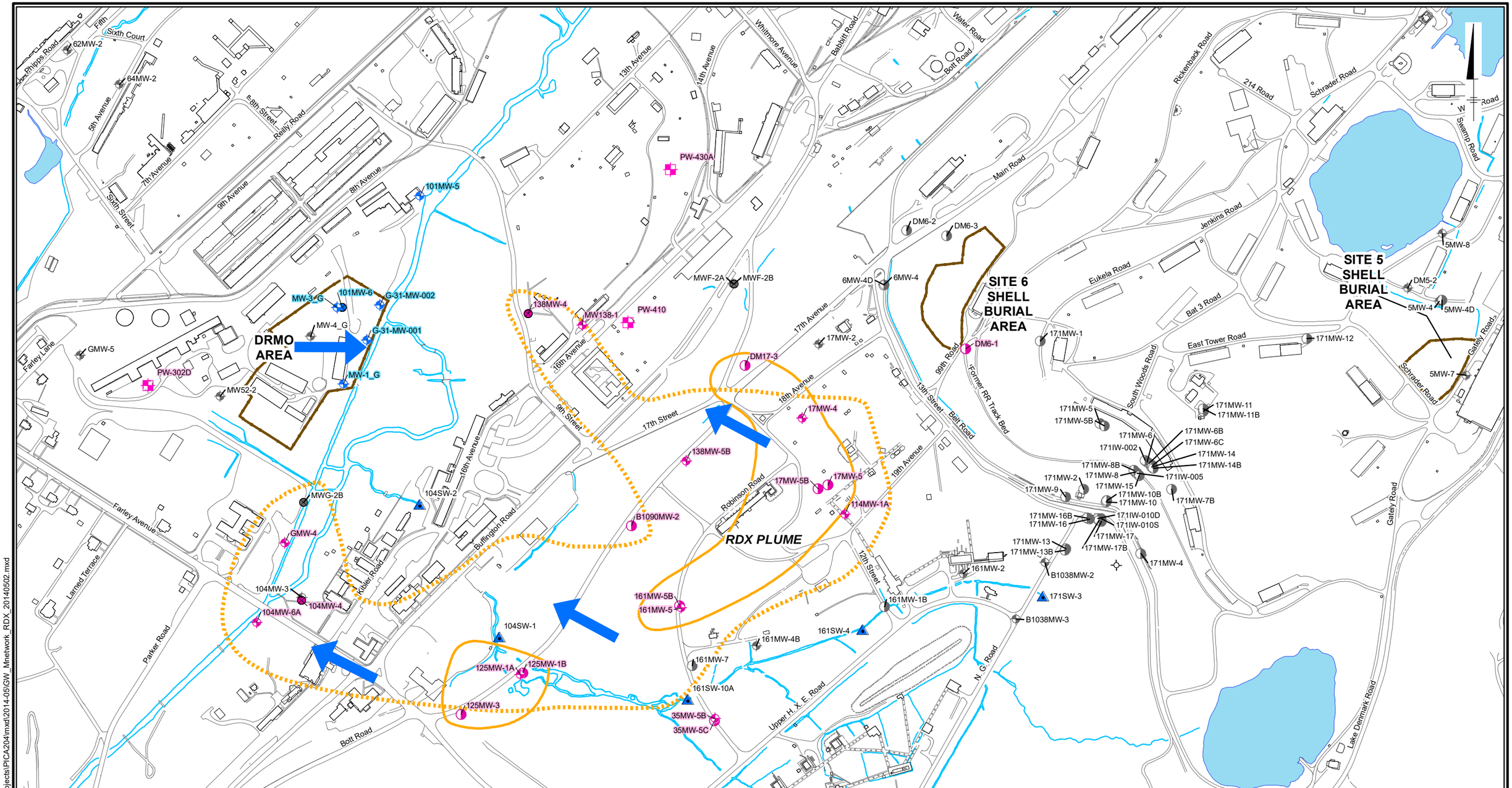

LEGEND:

- SUPPLY WELL
- UNKNOWN WELL CONSTRUCTION
- BEDROCK
- UNCONFINED AND/OR WEATHERED BEDROCK UNIT WELL
- UPPER SEMI-CONFINED WELL
- LOWER SEMI-CONFINED WELL
- SURFACE WATER SAMPLE
- AREA
- ROAD
- BUILDING
- WATER FEATURE
- RDX CONCENTRATION GREATER THAN 1µg/L
- WEATHERED BEDROCK/UNCONFINED AQUIFER
- BEDROCK
- WELL ID FORMER DRMO YARD (PICA 072) MNA NETWORK
- WELL ID RDX PLUME MNA NETWORK
- WELL ID MID-VALLEY MONITORING NETWORK WELLS
- APPROXIMATE GROUNDWATER FLOW DIRECTION

0 200 400
SCALE IN FEET

ACRONYMS:

µg/L - MICROGRAMS PER LITER
DRMO - DEFENSE REUTILIZATION AND MARKETING OFFICE
LTM - LONG TERM MONITORING
MNA - MONITORED NATURAL ATTENUATION
RDX - CYCLOTRIMETHYLENETRINITRAMINE

MID-VALLEY GROUNDWATER (PICA-204)
PICATINNY ARSENAL, NEW JERSEY

GROUNDWATER MONITORING NETWORK FOR RDX PLUMES

ARCADIS

FIGURE
21-7

CITY: MPLS DIV/GROUP: IM DB: MG LD: EC
Picatinny (GP06PICA.SITE)
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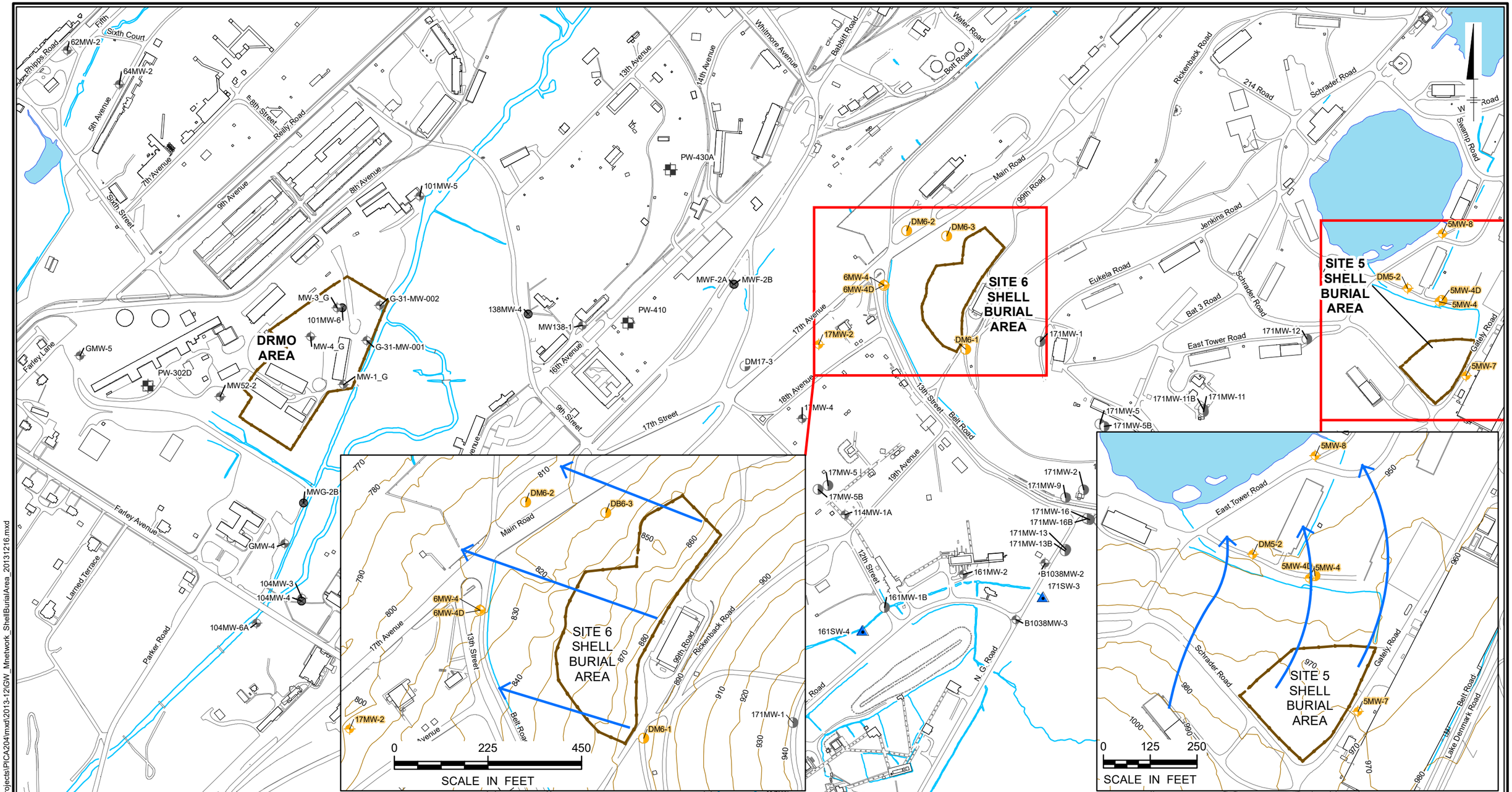

LEGEND:

- SUPPLY WELL
- UNKNOWN WELL CONSTRUCTION
- BEDROCK
- UNCONFINED AND/OR WEATHERED BEDROCK UNIT WELL
- UPPER SEMI-CONFINED WELL
- LOWER SEMI-CONFINED WELL
- SURFACE WATER SAMPLE
- AREA
- ROAD
- 10 FT CONTOUR
- BUILDING
- WATER FEATURE
- WELL ID SHELL BURIAL AREAS LTM
- WELL ID MID-VALLEY MONITORING NETWORK WELLS
- GENERALIZED GROUNDWATER FLOW DIRECTION

ACRONYM:

LTM - LONG TERM MONITORING

MID-VALLEY GROUNDWATER (PICA-204)
PICATINNY ARSENAL, NEW JERSEY

GROUNDWATER MONITORING NETWORK FOR SHELL BURIAL AREAS

ARCADIS

FIGURE **21-8**

CITY: MPLS DIV/GROUP: IM DB: MG LD: EC
Picatinny (GP06PICA.SITE)
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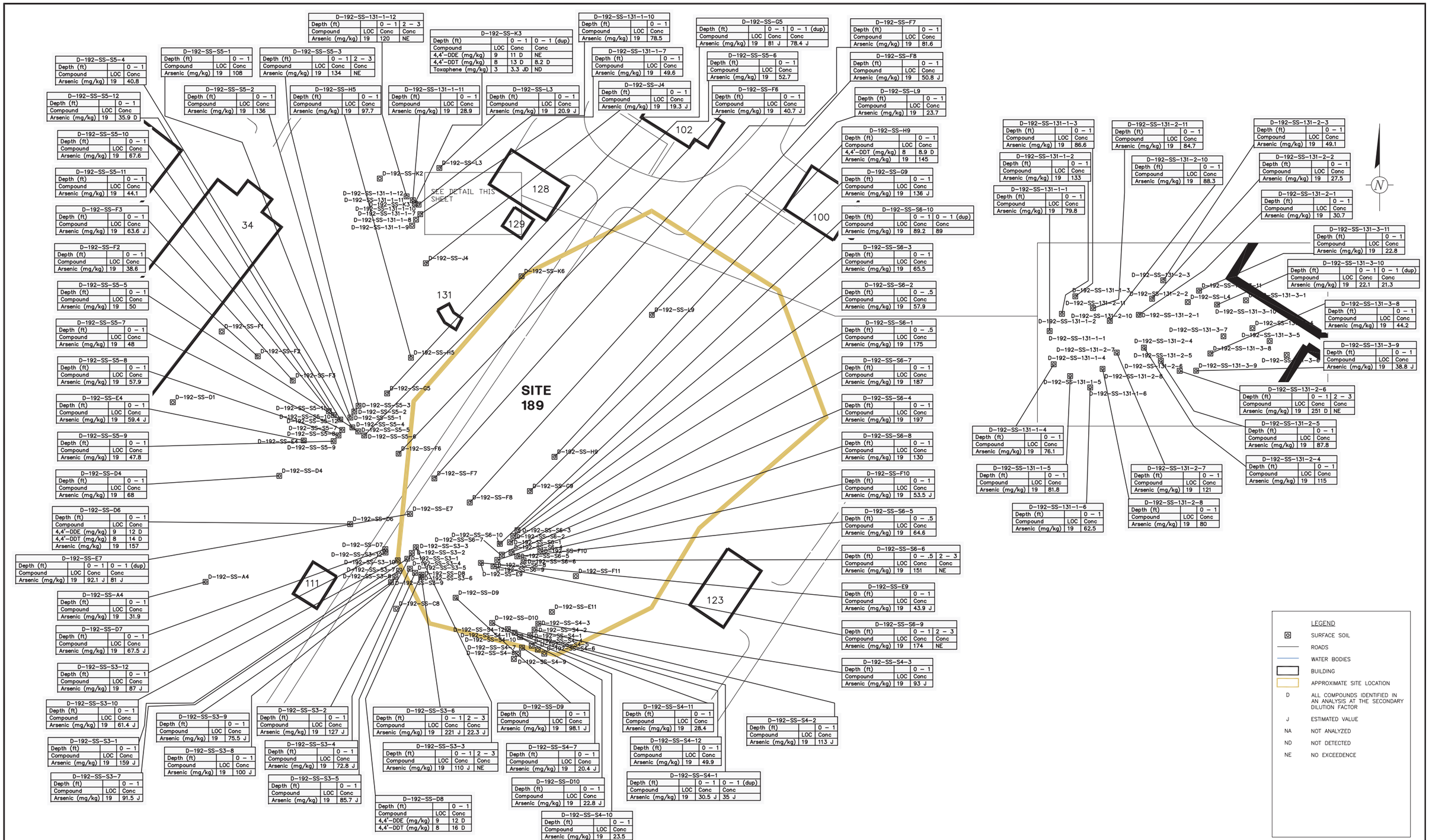

D-192-SS-131-1-12			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	120	NE

D-192-SS-K3			
Depth (ft)		0 – 1	0 – 1 (dup)
Compound	LOC	Conc	Conc
4,4'-DDE (mg/kg)	9	11 D	NE
4,4'-DDT (mg/kg)	8	13 D	8.2 D
Toxaphene (mg/kg)	3	3.3 JD	ND

D-192-SS-131-1-10			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	78.5	

D-192-SS-G5			
Depth (ft)		0 – 1	0 – 1 (dup)
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	81 J	78.4 J

D-192-SS-F7			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	81.6	

D-192-SS-S5-4			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	40.8	

D-192-SS-S5-1			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	108	

D-192-SS-S5-3			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	134	NE

D-192-SS-131-1-7			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	49.6	

D-192-SS-S5-6			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	52.7	

D-192-SS-F8			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	50.8 J	

D-192-SS-S5-2			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	136	

D-192-SS-H5			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	97.7	

D-192-SS-131-1-11			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	28.9	

D-192-SS-L3			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	20.9 J	

D-192-SS-J4			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	19.3 J	

D-192-SS-F6			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	40.7 J	

D-192-SS-L9			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	23.7	

D-192-SS-S5-10			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	67.6	

D-192-SS-S5-11			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	44.1	

D-192-SS-F3			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	63.6 J	

D-192-SS-F2			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	38.6	

D-192-SS-S5-5			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	50	

D-192-SS-S5-7			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	48	

D-192-SS-S5-8			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	57.9	

D-192-SS-E4			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	59.4 J	

D-192-SS-S5-9			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	47.8	

D-192-SS-D4			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	68	

D-192-SS-D6			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
4,4'-DDE (mg/kg)	9	12 D	
4,4'-DDT (mg/kg)	8	14 D	
Arsenic (mg/kg)	19	157	

D-192-SS-E7			
Depth (ft)		0 – 1	0 – 1 (dup)
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	92.1 J	81 J

D-192-SS-A4			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	31.9	

D-192-SS-D7			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	67.5 J	

D-192-SS-S3-12			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	87 J	

D-192-SS-S3-10			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	61.4 J	

D-192-SS-S3-1			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	159 J	

D-192-SS-S3-7			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	91.5 J	

D-192-SS-S3-9			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	75.5 J	

D-192-SS-S3-8			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	100 J	

D-192-SS-S3-2			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	127 J	

D-192-SS-S3-4			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	72.8 J	

D-192-SS-S3-5			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	85.7 J	

D-192-SS-S3-6			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	221 J	22.3 J

D-192-SS-S3-3			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	110 J	NE

D-192-SS-D8			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
4,4'-DDE (mg/kg)	9	12 D	
4,4'-DDT (mg/kg)	8	16 D	

D-192-SS-D9			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	98.1 J	

D-192-SS-S4-7			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	20.4 J	

D-192-SS-D10			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	22.8 J	

D-192-SS-S4-10			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	23.5	

D-192-SS-S4-11			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	28.4	

D-192-SS-S4-12			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	49.9	

D-192-SS-S4-1			
Depth (ft)		0 – 1	0 – 1 (dup)
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	30.5 J	35 J

D-192-SS-S4-2			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	113 J	

D-192-SS-H9			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
4,4'-DDT (mg/kg)	8	8.9 D	
Arsenic (mg/kg)	19	145	

D-192-SS-G9			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	136 J	

D-192-SS-S6-10			
Depth (ft)		0 – 1	0 – 1 (dup)
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	89.2	89

D-192-SS-S6-3			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	65.5	

D-192-SS-S6-2			
Depth (ft)		0 – .5	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	57.9	

D-192-SS-S6-1			
Depth (ft)		0 – .5	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	175	

D-192-SS-S6-7			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	187	

D-192-SS-S6-4			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	197	

D-192-SS-S6-8			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	130	

D-192-SS-F10			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	53.5 J	

D-192-SS-S6-5			
Depth (ft)		0 – .5	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	64.6	

D-192-SS-S6-6			
Depth (ft)		0 – .5	2 – 3
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	151	NE

D-192-SS-E9			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	43.9 J	

D-192-SS-S6-9			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	174	NE

D-192-SS-S4-3			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	93 J	

D-192-SS-131-1-3			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	86.6	

D-192-SS-131-2-11			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	84.7	

D-192-SS-131-2-3			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	49.1	

D-192-SS-131-1-2			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	133	

D-192-SS-131-2-10			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	88.3	

D-192-SS-131-2-2			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	27.5	

D-192-SS-131-1-1			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	79.8	

D-192-SS-131-2-1			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	30.7	

D-192-SS-131-3-11			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	22.8	

D-192-SS-131-3-10			
Depth (ft)		0 – 1	0 – 1 (dup)
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	22.1	21.3

D-192-SS-131-3-8			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	44.2	

D-192-SS-131-3-9			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	38.8 J	

D-192-SS-131-2-6			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	251 D	NE

D-192-SS-131-1-4			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	76.1	

D-192-SS-131-2-5			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	87.8	

D-192-SS-131-1-5			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	81.8	

D-192-SS-131-2-7			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	121	

D-192-SS-131-2-4			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	115	

D-192-SS-131-1-6			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	62.5	

D-192-SS-131-2-8			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	80	

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Acad Version : R18.0s (LMS Tech)
User Name : AFOX

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0 30
SCALE IN FEET

PLOT SIZE: 22x34

REV. ISSUED DATE DESCRIPTION

KEYPLAN

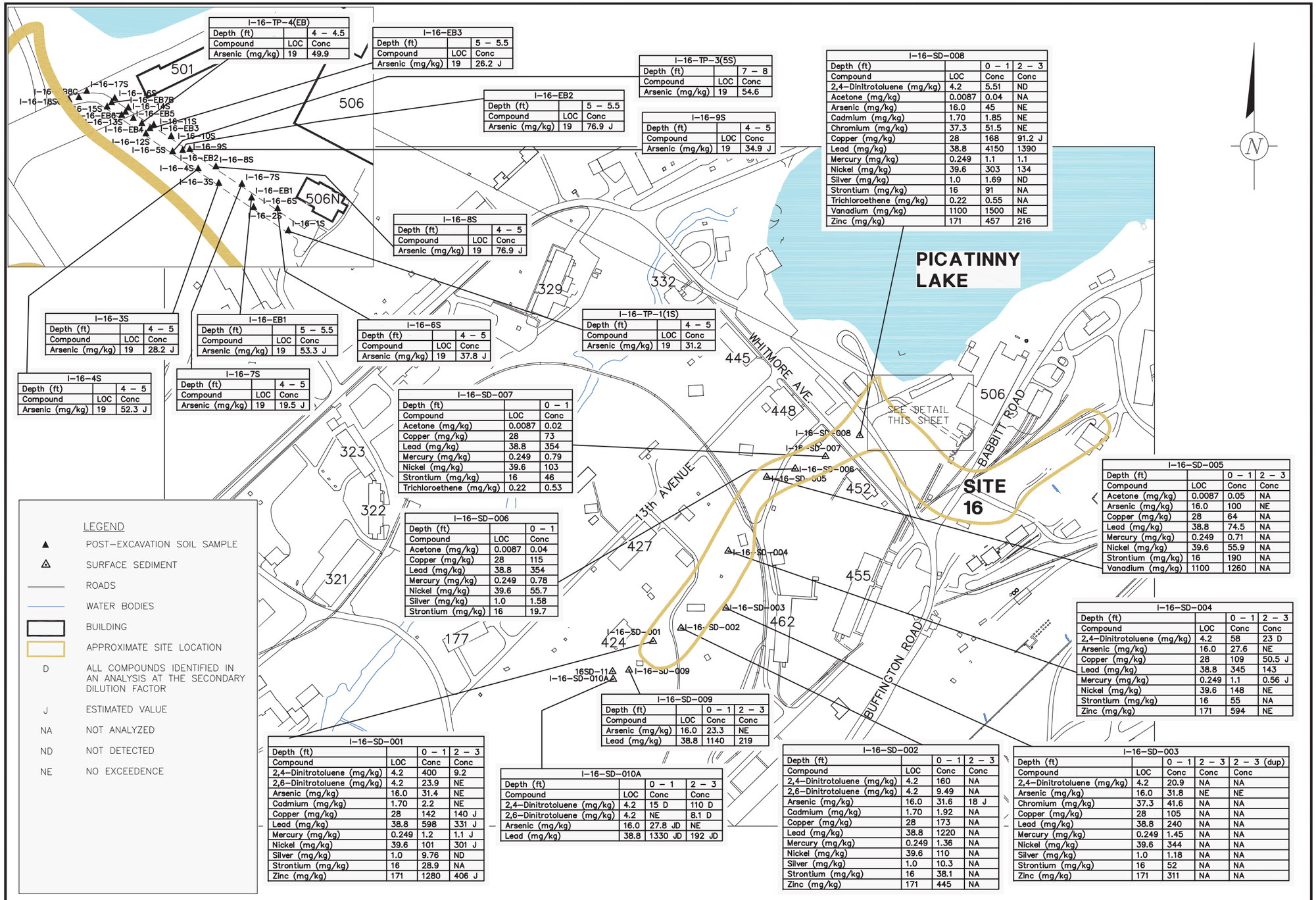
SEAL

ARCADIS
1114 Benfield Blvd.
Suite A
Millersville, MD 21108
Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN
		TASK/PHASE NUMBER	DRAWN BY
		EA001	A. FOX
		PROJECT NUMBER	FIGURE
		GP06PICA.P001	22-1

SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 189/PICA 192 APPLE TREES RECREATION AREA



I-16-TP-4(EB)		
Depth (ft)		4 – 4.5
Compound	LOC	Conc
Arsenic (mg/kg)	19	49.9

I-16-EB3		
Depth (ft)		5 – 5.5
Compound	LOC	Conc
Arsenic (mg/kg)	19	26.2 J

I-16-TP-3(5S)		
Depth (ft)		7 – 8
Compound	LOC	Conc
Arsenic (mg/kg)	19	54.6

I-16-EB2		
Depth (ft)		5 – 5.5
Compound	LOC	Conc
Arsenic (mg/kg)	19	76.9 J

I-16-9S		
Depth (ft)		4 – 5
Compound	LOC	Conc
Arsenic (mg/kg)	19	34.9 J

I-16-SD-008			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
2,4-Dinitrotoluene (mg/kg)	4.2	5.51	ND
Acetone (mg/kg)	0.0087	0.04	NA
Arsenic (mg/kg)	16.0	45	NE
Cadmium (mg/kg)	1.70	1.85	NE
Chromium (mg/kg)	37.3	51.5	NE
Copper (mg/kg)	28	168	91.2 J
Lead (mg/kg)	38.8	4150	1390
Mercury (mg/kg)	0.249	1.1	1.1
Nickel (mg/kg)	39.6	303	134
Silver (mg/kg)	1.0	1.69	ND
Strontium (mg/kg)	16	91	NA
Trichloroethene (mg/kg)	0.22	0.55	NA
Vanadium (mg/kg)	1100	1500	NE
Zinc (mg/kg)	171	457	216

I-16-8S		
Depth (ft)		4 – 5
Compound	LOC	Conc
Arsenic (mg/kg)	19	76.9 J

I-16-3S		
Depth (ft)		4 – 5
Compound	LOC	Conc
Arsenic (mg/kg)	19	28.2 J

I-16-EB1		
Depth (ft)		5 – 5.5
Compound	LOC	Conc
Arsenic (mg/kg)	19	53.3 J

I-16-6S		
Depth (ft)		4 – 5
Compound	LOC	Conc
Arsenic (mg/kg)	19	37.8 J

I-16-TP-1(1S)		
Depth (ft)		4 – 5
Compound	LOC	Conc
Arsenic (mg/kg)	19	31.2

I-16-4S		
Depth (ft)		4 – 5
Compound	LOC	Conc
Arsenic (mg/kg)	19	52.3 J

I-16-7S		
Depth (ft)		4 – 5
Compound	LOC	Conc
Arsenic (mg/kg)	19	19.5 J

I-16-SD-007		
Depth (ft)		0 – 1
Compound	LOC	Conc
Acetone (mg/kg)	0.0087	0.02
Copper (mg/kg)	28	73
Lead (mg/kg)	38.8	354
Mercury (mg/kg)	0.249	0.79
Nickel (mg/kg)	39.6	103
Strontium (mg/kg)	16	46
Trichloroethene (mg/kg)	0.22	0.53

I-16-SD-006		
Depth (ft)		0 – 1
Compound	LOC	Conc
Acetone (mg/kg)	0.0087	0.04
Copper (mg/kg)	28	115
Lead (mg/kg)	38.8	354
Mercury (mg/kg)	0.249	0.78
Nickel (mg/kg)	39.6	55.7
Silver (mg/kg)	1.0	1.58
Strontium (mg/kg)	16	19.7

I-16-SD-005			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
Acetone (mg/kg)	0.0087	0.05	NA
Arsenic (mg/kg)	16.0	100	NE
Copper (mg/kg)	28	64	NA
Lead (mg/kg)	38.8	74.5	NA
Mercury (mg/kg)	0.249	0.71	NA
Nickel (mg/kg)	39.6	55.9	NA
Strontium (mg/kg)	16	190	NA
Vanadium (mg/kg)	1100	1260	NA

I-16-SD-004			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
2,4-Dinitrotoluene (mg/kg)	4.2	58	23 D
Arsenic (mg/kg)	16.0	27.6	NE
Copper (mg/kg)	28	109	50.5 J
Lead (mg/kg)	38.8	345	143
Mercury (mg/kg)	0.249	1.1	0.56 J
Nickel (mg/kg)	39.6	148	NE
Strontium (mg/kg)	16	55	NA
Zinc (mg/kg)	171	594	NE

I-16-SD-009			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	16.0	23.3	NE
Lead (mg/kg)	38.8	1140	219

I-16-SD-001			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
2,4-Dinitrotoluene (mg/kg)	4.2	400	9.2
2,6-Dinitrotoluene (mg/kg)	4.2	23.9	NE
Arsenic (mg/kg)	16.0	31.4	NE
Cadmium (mg/kg)	1.70	2.2	NE
Copper (mg/kg)	28	142	140 J
Lead (mg/kg)	38.8	598	331 J
Mercury (mg/kg)	0.249	1.2	1.1 J
Nickel (mg/kg)	39.6	101	301 J
Silver (mg/kg)	1.0	9.76	ND
Strontium (mg/kg)	16	28.9	NA
Zinc (mg/kg)	171	1280	406 J

I-16-SD-010A			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
2,4-Dinitrotoluene (mg/kg)	4.2	15 D	110 D
2,6-Dinitrotoluene (mg/kg)	4.2	NE	8.1 D
Arsenic (mg/kg)	16.0	27.8 JD	NE
Lead (mg/kg)	38.8	1330 JD	192 JD

I-16-SD-002			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
2,4-Dinitrotoluene (mg/kg)	4.2	160	NA
2,6-Dinitrotoluene (mg/kg)	4.2	9.49	NA
Arsenic (mg/kg)	16.0	31.6	18 J
Cadmium (mg/kg)	1.70	1.92	NA
Copper (mg/kg)	28	173	NA
Lead (mg/kg)	38.8	1220	NA
Mercury (mg/kg)	0.249	1.36	NA
Nickel (mg/kg)	39.6	110	NA
Silver (mg/kg)	1.0	10.3	NA
Strontium (mg/kg)	16	38.1	NA
Zinc (mg/kg)	171	445	NA

I-16-SD-003				
Depth (ft)		0 – 1	2 – 3	2 – 3 (dup)
Compound	LOC	Conc	Conc	Conc
2,4-Dinitrotoluene (mg/kg)	4.2	20.9	NA	NA
Arsenic (mg/kg)	16.0	31.8	NE	NE
Chromium (mg/kg)	37.3	41.6	NA	NA
Copper (mg/kg)	28	105	NA	NA
Lead (mg/kg)	38.8	240	NA	NA
Mercury (mg/kg)	0.249	1.45	NA	NA
Nickel (mg/kg)	39.6	344	NA	NA
Silver (mg/kg)	1.0	1.18	NA	NA
Strontium (mg/kg)	16	52	NA	NA
Zinc (mg/kg)	171	311	NA	NA

LEGEND

- ▲ POST-EXCAVATION SOIL SAMPLE
- △ SURFACE SEDIMENT
- ROADS
- WATER BODIES
- BUILDING
- APPROXIMATE SITE LOCATION
- D ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J ESTIMATED VALUE
- NA NOT ANALYZED
- ND NOT DETECTED
- NE NO EXCEEDENCE

Acad Version : R18.1s (LMS Tech)
User Name : AFOX

Date\Time : Wed, 02 May 2012 – 9:03am
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PLOT SIZE: 17x22

REV. ISSUED DATE DESCRIPTION

SEAL

ARCADIS
1114 Benfield Blvd.
Suite A
Millersville, MD 21108
Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER: T. LLEWELLYN
DEPARTMENT MANAGER: M. MOHIUDDIN
LEAD DESIGN PROF.: K. PANHORST
CHECKED BY: T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA
EXCEEDING LOCs AT
RI SITE 16/PICA 006
GUNCOTTON LINE

TASK/PHASE NUMBER: EA002
DRAWN BY: A. FOX
PROJECT NUMBER: GP06PICA.P001
FIGURE 22-2

Acad Version : R18.0s (LMS Tech)
User Name : AFOX

Date\Time : Wed, 28 Jul 2010 - 9:24am
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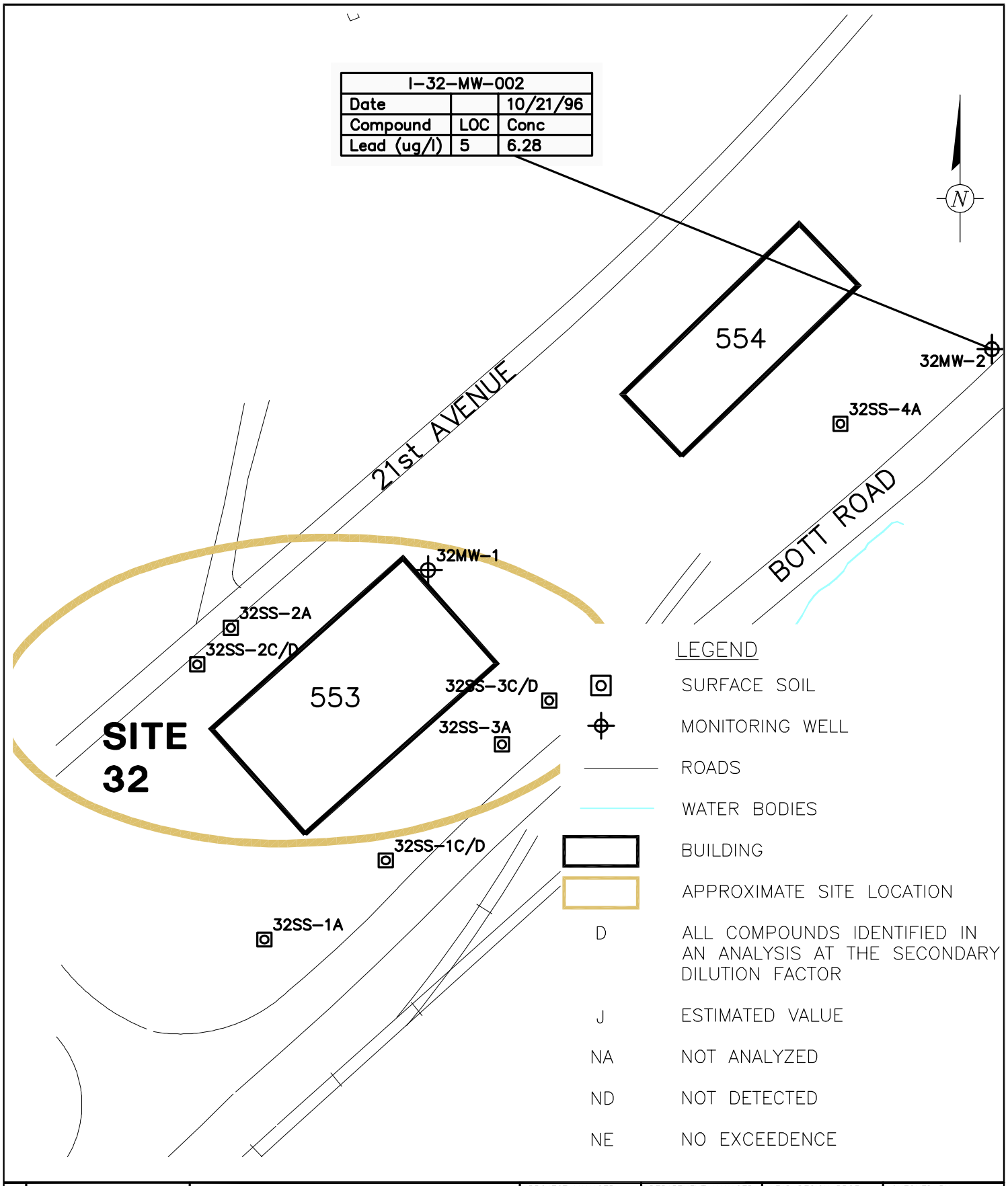

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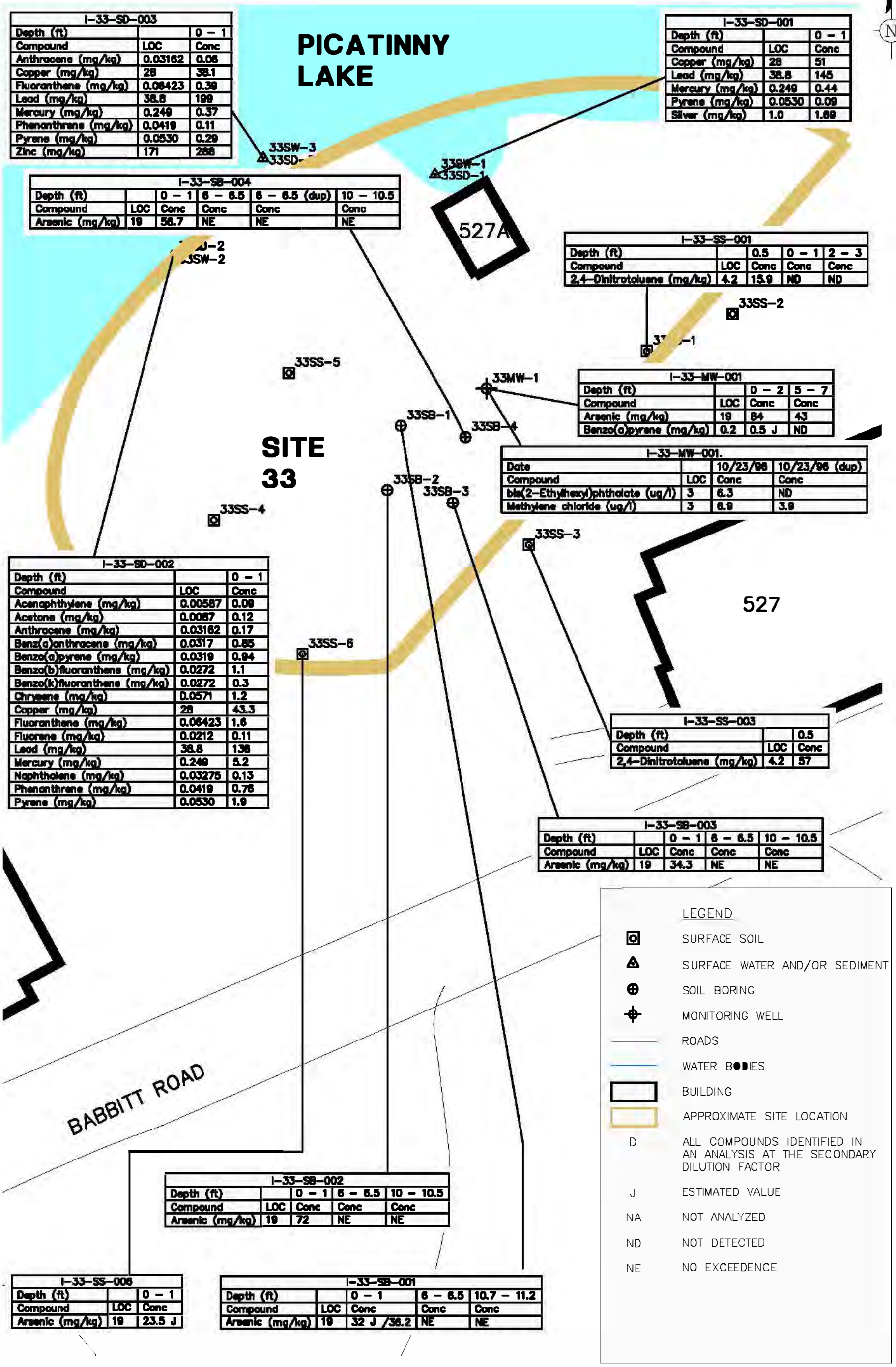
PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN
SHEET TITLE		TASK/PHASE NUMBER	DRAWN BY
HISTORICAL DATA EXCEEDING LOCs DATA AT RI SITE 32/PICA 073 STORAGE TANKS (BUILDING 553)		EA001	A. FOX
		PROJECT NUMBER	FIGURE
		GP06PICA.P001	22-3



I-33-SD-003		
Depth (ft)		0 - 1
Compound	LOC	Conc
Anthracene (mg/kg)	0.03162	0.06
Copper (mg/kg)	28	38.1
Fluoranthene (mg/kg)	0.06423	0.39
Lead (mg/kg)	38.8	199
Mercury (mg/kg)	0.249	0.37
Phenanthrene (mg/kg)	0.0419	0.11
Pyrene (mg/kg)	0.0530	0.29
Zinc (mg/kg)	171	288

I-33-SD-001		
Depth (ft)		0 - 1
Compound	LOC	Conc
Copper (mg/kg)	28	51
Lead (mg/kg)	38.8	145
Mercury (mg/kg)	0.249	0.44
Pyrene (mg/kg)	0.0530	0.09
Silver (mg/kg)	1.0	1.69

I-33-SB-004					
Depth (ft)		0 - 1	6 - 6.5	6 - 6.5 (dup)	10 - 10.5
Compound	LOC	Conc	Conc	Conc	Conc
Arsenic (mg/kg)	19	58.7	NE	NE	NE

I-33-SS-001				
Depth (ft)		0.5	0 - 1	2 - 3
Compound	LOC	Conc	Conc	Conc
2,4-Dinitrotoluene (mg/kg)	4.2	15.9	ND	ND

I-33-MW-001			
Depth (ft)		0 - 2	5 - 7
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	84	43
Benzo(a)pyrene (mg/kg)	0.2	0.5 J	ND

I-33-MW-001.			
Date		10/23/98	10/23/98 (dup)
Compound	LOC	Conc	Conc
bis(2-Ethylhexyl)phthalate (ug/l)	3	6.3	ND
Methylene chloride (ug/l)	3	6.9	3.9

I-33-SD-002		
Depth (ft)		0 - 1
Compound	LOC	Conc
Acenaphthylene (mg/kg)	0.00587	0.09
Acetone (mg/kg)	0.0087	0.12
Anthracene (mg/kg)	0.03162	0.17
Benz(a)anthracene (mg/kg)	0.0317	0.85
Benzo(a)pyrene (mg/kg)	0.0319	0.94
Benzo(b)fluoranthene (mg/kg)	0.0272	1.1
Benzo(k)fluoranthene (mg/kg)	0.0272	0.3
Chrysene (mg/kg)	0.0571	1.2
Copper (mg/kg)	28	43.3
Fluoranthene (mg/kg)	0.06423	1.6
Fluorene (mg/kg)	0.0212	0.11
Lead (mg/kg)	38.8	136
Mercury (mg/kg)	0.249	5.2
Naphthalene (mg/kg)	0.03275	0.13
Phenanthrene (mg/kg)	0.0419	0.76
Pyrene (mg/kg)	0.0530	1.9

I-33-SS-003		
Depth (ft)		0.5
Compound	LOC	Conc
2,4-Dinitrotoluene (mg/kg)	4.2	57

I-33-SB-003				
Depth (ft)		0 - 1	6 - 6.5	10 - 10.5
Compound	LOC	Conc	Conc	Conc
Arsenic (mg/kg)	19	34.3	NE	NE

LEGEND

- SURFACE SOIL
- SURFACE WATER AND/OR SEDIMENT
- SOIL BORING
- MONITORING WELL
- ROADS
- WATER BODIES
- BUILDING
- APPROXIMATE SITE LOCATION
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

I-33-SB-002				
Depth (ft)		0 - 1	6 - 6.5	10 - 10.5
Compound	LOC	Conc	Conc	Conc
Arsenic (mg/kg)	19	72	NE	NE

I-33-SS-006		
Depth (ft)		0 - 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	23.5 J

I-33-SB-001				
Depth (ft)		0 - 1	6 - 6.5	10.7 - 11.2
Compound	LOC	Conc	Conc	Conc
Arsenic (mg/kg)	19	32 J /36.2	NE	NE

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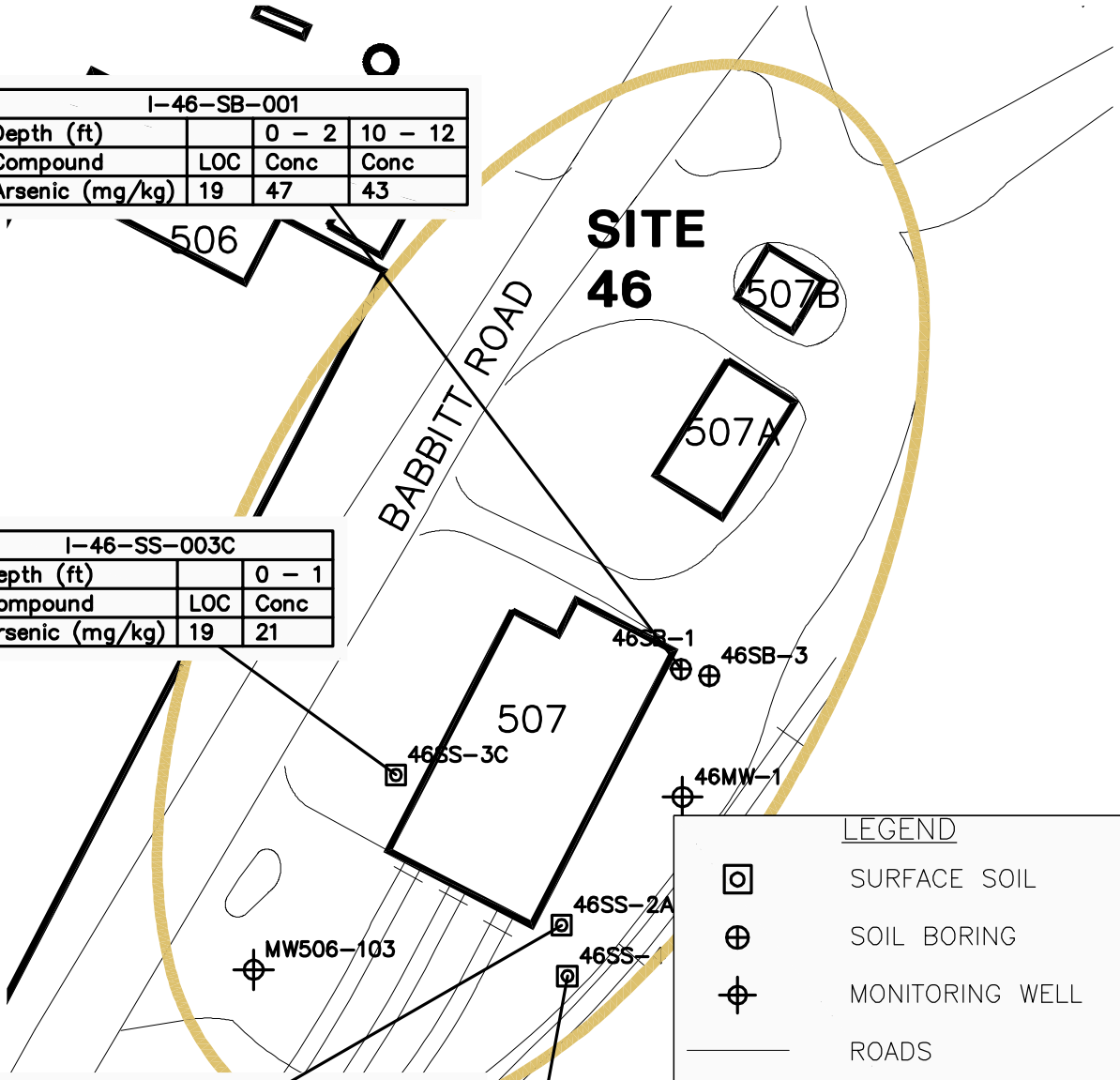
PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 33/PICA 074 STORAGE TANKS (BUILDING 527A)

TASK/PHASE NUMBER: EA001
DRAWN BY: A. SANTINI
PROJECT NUMBER: GP06PICAJP001
FIGURE: 22-4



I-46-SB-001			
Depth (ft)		0 - 2	10 - 12
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	47	43

I-46-SS-003C		
Depth (ft)		0 - 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	21

I-46-SS-002A		
Depth (ft)		0 - 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	250
Benz(a)anthracene (mg/kg)	2	9
Benzo(a)pyrene (mg/kg)	0.2	10
Benzo(b)fluoranthene (mg/kg)	2	10

I-46-SS-004		
Depth (ft)		0 - 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	49.5 J
Benz(a)anthracene (mg/kg)	2	3.8 D
Benzo(a)pyrene (mg/kg)	0.2	3.6 D
Benzo(b)fluoranthene (mg/kg)	2	4.8 D

LEGEND

⊡	SURFACE SOIL
⊕	SOIL BORING
⌖	MONITORING WELL
———	ROADS
———	WATER BODIES
▭	BUILDING
▭	APPROXIMATE SITE LOCATION
D	ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
J	ESTIMATED VALUE
NA	NOT ANALYZED
ND	NOT DETECTED
NE	NO EXCEEDENCE

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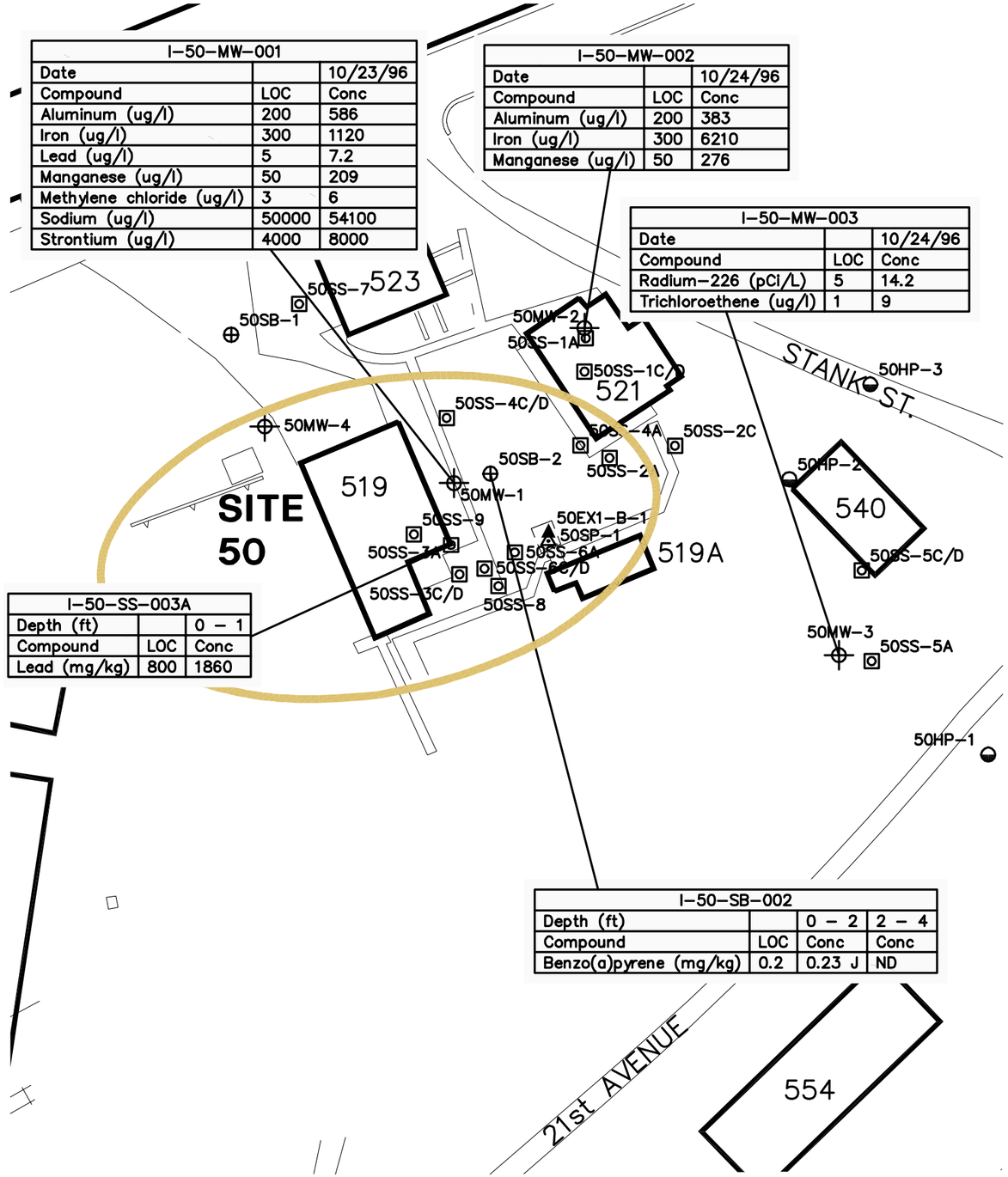
PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN
SHEET TITLE		TASK/PHASE NUMBER	DRAWN BY
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 46/PICA 085 90-DAY WASTE ACCUMULATION (BUILDING 507)		EA001	A. FOX
		PROJECT NUMBER	FIGURE
		GP06PICA.P001	22-5



I-50-MW-001		
Date		10/23/96
Compound	LOC	Conc
Aluminum (ug/l)	200	586
Iron (ug/l)	300	1120
Lead (ug/l)	5	7.2
Manganese (ug/l)	50	209
Methylene chloride (ug/l)	3	6
Sodium (ug/l)	50000	54100
Strontium (ug/l)	4000	8000

I-50-MW-002		
Date		10/24/96
Compound	LOC	Conc
Aluminum (ug/l)	200	383
Iron (ug/l)	300	6210
Manganese (ug/l)	50	276

I-50-MW-003		
Date		10/24/96
Compound	LOC	Conc
Radium-226 (pCi/L)	5	14.2
Trichloroethene (ug/l)	1	9

I-50-SS-003A		
Depth (ft)		0 - 1
Compound	LOC	Conc
Lead (mg/kg)	800	1860

I-50-SB-002			
Depth (ft)		0 - 2	2 - 4
Compound	LOC	Conc	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.23 J	ND

LEGEND

- SURFACE SOIL
- SURFACE WATER AND/OR SEDIMENT
- SOIL BORING
- MONITORING WELL
- HYDROPUNCH
- POST-EXCAVATION SOIL SAMPLE
- ROADS
- WATER BODIES
- BUILDING
- APPROXIMATE SITE LOCATION
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

0 50
SCALE IN FEET
PLOT SCALE 11x17

REV. ISSUED DATE DESCRIPTION

KEYPLAN

ARCADIS
1114 Benfield Blvd. Suite A
Millersville, MD 21108
Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	K. TIPTON

SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 50/PICA 022 STILL HOUSE AND HAZARDOUS WASTE STORAGE TANK

TASK/PHASE NUMBER: EA001
DRAWN BY: A. FOX
PROJECT NUMBER: GP06PICA.P001
FIGURE: 22-6

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Date/Time : 11:, 30 Jul 2010 - 11:10am
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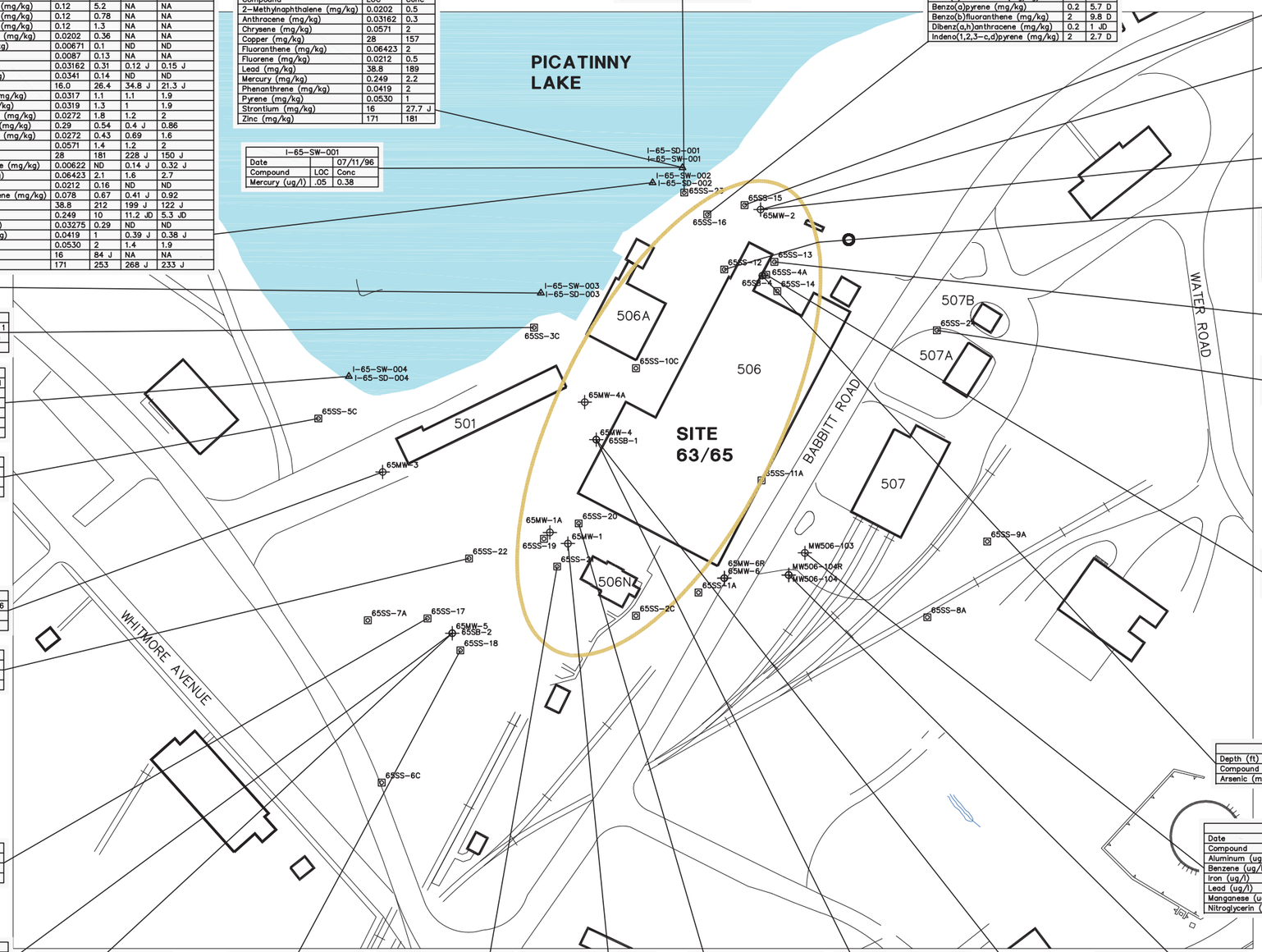
User Name : AFOX



I-65-SD-002				
Depth (ft)		0 – 1	1 – 2	1 – 2 (dup)
Compound	LOC	Conc	Conc	Conc
1,2-Dichlorobenzene (mg/kg)	0.12	5.2	NA	NA
1,3-Dichlorobenzene (mg/kg)	0.12	0.78	NA	NA
1,4-Dichlorobenzene (mg/kg)	0.12	1.3	NA	NA
2-Methylnaphthalene (mg/kg)	0.0202	0.36	NA	NA
Acenaphthene (mg/kg)	0.00671	0.1	ND	ND
Acetone (mg/kg)	0.0087	0.13	NA	NA
Anthracene (mg/kg)	0.03162	0.31	0.12 J	0.15 J
Aroclor 1260 (mg/kg)	0.0341	0.14	ND	ND
Arsenic (mg/kg)	16.0	26.4	34.8 J	21.3 J
Benz(a)anthracene (mg/kg)	0.0317	1.1	1.1	1.9
Benzo(a)pyrene (mg/kg)	0.0319	1.3	1	1.9
Benzo(b)fluoranthene (mg/kg)	0.0272	1.8	1.2	2
Benzo(g,h,i)perylene (mg/kg)	0.29	0.54	0.4 J	0.86
Benzo(k)fluoranthene (mg/kg)	0.0272	0.43	0.69	1.6
Chrysene (mg/kg)	0.0571	1.4	1.2	2
Copper (mg/kg)	28	181	228 J	150 J
Dibenz(a,h)anthracene (mg/kg)	0.00622	ND	0.14 J	0.32 J
Fluoranthene (mg/kg)	0.06423	2.1	1.6	2.7
Fluorene (mg/kg)	0.0212	0.16	ND	ND
Indeno(1,2,3-c,d)pyrene (mg/kg)	0.078	0.67	0.41 J	0.92
Lead (mg/kg)	38.8	212	199 J	122 J
Mercury (mg/kg)	0.249	10	11.2 JD	5.3 JD
Naphthalene (mg/kg)	0.03275	0.29	ND	ND
Phenanthrene (mg/kg)	0.0419	1	0.39 J	0.38 J
Pyrene (mg/kg)	0.0530	2	1.4	1.9
Strontium (mg/kg)	16	84 J	NA	NA
Zinc (mg/kg)	171	253	268 J	233 J

I-65-SD-001		
Depth (ft)		0 – 1
Compound	LOC	Conc
2-Methylnaphthalene (mg/kg)	0.0202	0.5
Anthracene (mg/kg)	0.03162	0.3
Chrysene (mg/kg)	0.0571	2
Copper (mg/kg)	28	157
Fluoranthene (mg/kg)	0.06423	2
Fluorene (mg/kg)	0.0212	0.5
Lead (mg/kg)	38.8	189
Mercury (mg/kg)	0.249	2.2
Phenanthrene (mg/kg)	0.0419	2
Pyrene (mg/kg)	0.0530	1
Strontium (mg/kg)	16	27.7 J
Zinc (mg/kg)	171	181

I-65-SD-003		
Depth (ft)		0 – 1
Compound	LOC	Conc
2-Methylnaphthalene (mg/kg)	0.0202	1
Acenaphthene (mg/kg)	0.00671	2
Anthracene (mg/kg)	0.03162	1
Benz(a)anthracene (mg/kg)	0.0317	3
Benzo(a)pyrene (mg/kg)	0.0319	3
Benzo(b)fluoranthene (mg/kg)	0.0272	5
Benzo(k)fluoranthene (mg/kg)	0.0272	1
Chrysene (mg/kg)	0.0571	4
Copper (mg/kg)	28	71
Dibenzofuran (mg/kg)	0.42	0.8
Fluoranthene (mg/kg)	0.06423	9
Fluorene (mg/kg)	0.0212	1
Lead (mg/kg)	38.8	71.3
Naphthalene (mg/kg)	0.03275	2
Phenanthrene (mg/kg)	0.0419	9
Pyrene (mg/kg)	0.0530	7
Strontium (mg/kg)	16	47 J

I-65-SW-001		
Date		07/11/96
Compound	LOC	Conc
Mercury (ug/l)	.05	0.38

I-65-SS-023		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	22.4 J

I-65-SS-016		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	55 J
Benz(a)anthracene (mg/kg)	2	4.2 D
Benzo(a)pyrene (mg/kg)	0.2	5.7 D
Benzo(b)fluoranthene (mg/kg)	2	9.8 D
Dibenz(a,h)anthracene (mg/kg)	0.2	1 JD
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	2.7 D

I-65-SS-015			
Depth (ft)		0 – 1	0 – 1 (dup)
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	55.4 J	49.7 J
Benzo(a)pyrene (mg/kg)	0.2	0.48 J	0.29 J

I-65-MW-002			
Depth (ft)		0 – 2	10 – 12
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	79	NE
Benz(a)anthracene (mg/kg)	2	20	ND
Benzo(a)pyrene (mg/kg)	0.2	30	ND
Benzo(b)fluoranthene (mg/kg)	2	50	ND
Dibenz(a,h)anthracene (mg/kg)	0.2	2.6	ND
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	10	ND

I-65-MW-002.		
Date		10/14/96
Compound	LOC	Conc
Manganese (ug/l)	50	164
Sodium (ug/l)	50000	439000

I-65-SS-012		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	54.3 J
Benzo(a)pyrene (mg/kg)	0.2	1.5
Benzo(b)fluoranthene (mg/kg)	2	2.6
Dibenz(a,h)anthracene (mg/kg)	0.2	0.24 J

I-65-SS-013		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	22.5 J

I-65-SS-024		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	24.8 J

I-65-SS-004A		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	940

I-65-SS-003C		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.4

I-65-SD-004		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	38.8	51.9
Mercury (mg/kg)	0.249	0.31
Phenanthrene (mg/kg)	0.0419	0.7
Pyrene (mg/kg)	0.0530	0.7

I-65-SS-005C		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.57

I-65-MW-003		
Date		10/24/96
Compound	LOC	Conc
Manganese (ug/l)	50	59.7

I-65-SS-022		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	28 J

I-65-SS-017		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	29.6 J

I-65-MW-005		
Date		10/28/96
Compound	LOC	Conc
Manganese (ug/l)	50	106

I-65-SB-002		
Depth (ft)		0 – 2
Compound	LOC	Conc
Arsenic (mg/kg)	19	80

I-65-SS-018		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	20 J

I-65-SS-021		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	33.3 J

I-65-MW-001		
Depth (ft)		0 – 2
Compound	LOC	Conc
Arsenic (mg/kg)	19	110

I-65-SS-020		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	19.1 J

I-65-SB-001		
Depth (ft)		0 – 2
Compound	LOC	Conc
Arsenic (mg/kg)	19	23

I-65-MW-004		
Date		10/28/96
Compound	LOC	Conc
Sodium (ug/l)	50000	151000

I-MW506-104		
Date		10/11/96
Compound	LOC	Conc
Aluminum (ug/l)	200	11100
Iron (ug/l)	300	44200
Lead (ug/l)	5	36.4
Manganese (ug/l)	50	396

I-65-SB-004			
Depth (ft)		3 – 3.5	6.2 – 6.7
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	179 J	75.6 J

I-MW506-103			
Date		10/11/96	01/17/03
Compound	LOC	Conc	Conc
Aluminum (ug/l)	200	290	NA
Benzene (ug/l)	1	1.8	ND
Iron (ug/l)	300	13200	NA
Lead (ug/l)	5	5.18	NA
Manganese (ug/l)	50	832	NA
Nitroglycerin (ug/l)	3.7	14	NA

LEGEND

- SURFACE SOIL
- SURFACE WATER AND/OR SEDIMENT
- MONITORING WELL
- ROADS
- WATER BODIES
- BUILDING
- APPROXIMATE SITE LOCATION
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

Date\Time : Wed, 29 Jul 2010 – 2:43pm
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PLOT SIZE: 22x34

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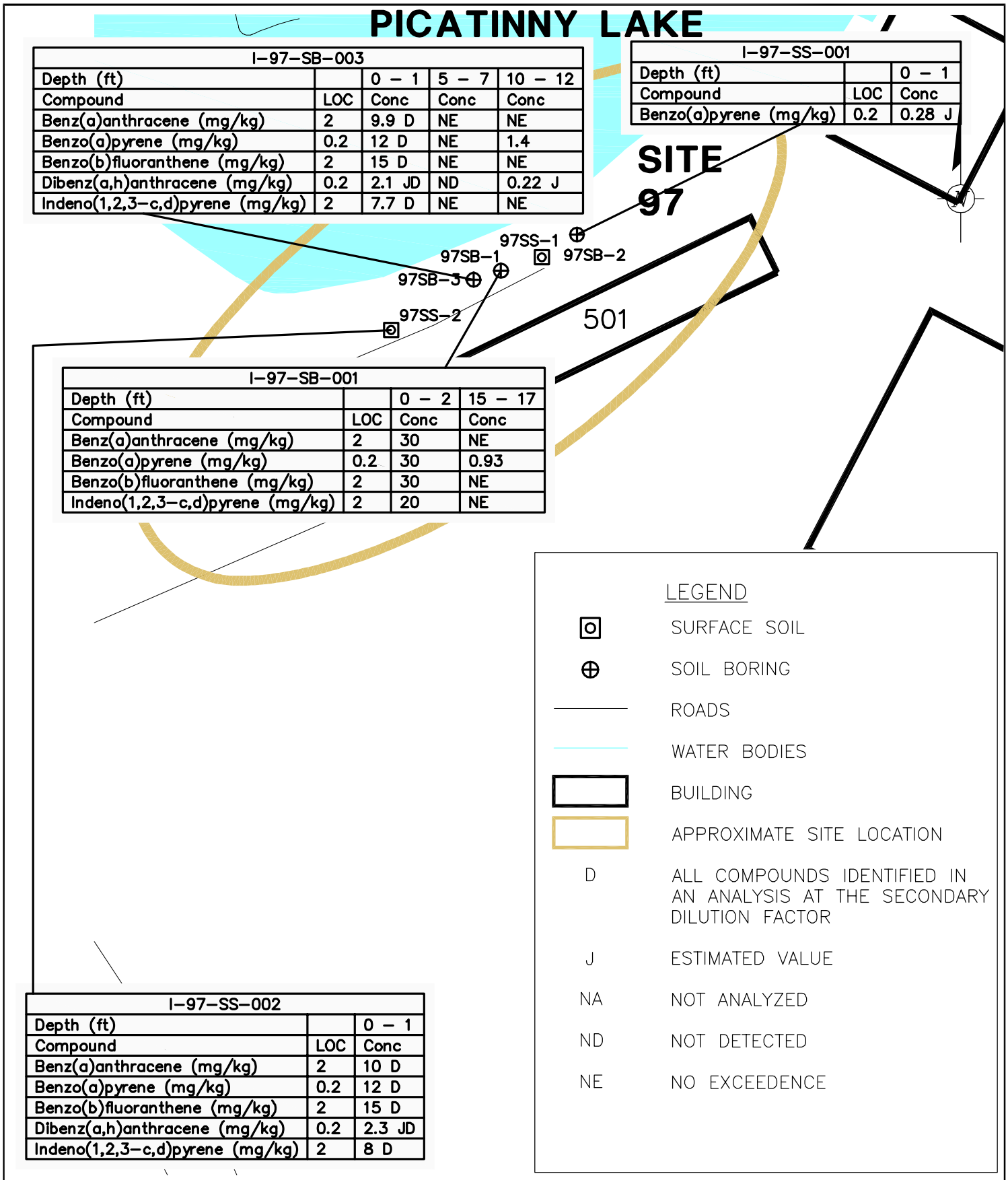
Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER: T. LLEWELLYN
DEPARTMENT MANAGER: M. MOHIUDDIN
LEAD DESIGN PROF.: K. PANHORST
CHECKED BY: T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 63/65 /PICA 047 STEAM AND POWER PLANT (BUILDING 506)

TASK/PHASE NUMBER: EA001
DRAWN BY: A. FOX
PROJECT NUMBER: GP06PICA.P001
FIGURE: 22-7



I-97-SB-003				
Depth (ft)		0 - 1	5 - 7	10 - 12
Compound	LOC	Conc	Conc	Conc
Benz(a)anthracene (mg/kg)	2	9.9 D	NE	NE
Benzo(a)pyrene (mg/kg)	0.2	12 D	NE	1.4
Benzo(b)fluoranthene (mg/kg)	2	15 D	NE	NE
Dibenz(a,h)anthracene (mg/kg)	0.2	2.1 JD	ND	0.22 J
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	7.7 D	NE	NE

I-97-SS-001		
Depth (ft)		0 - 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.28 J

I-97-SB-001			
Depth (ft)		0 - 2	15 - 17
Compound	LOC	Conc	Conc
Benz(a)anthracene (mg/kg)	2	30	NE
Benzo(a)pyrene (mg/kg)	0.2	30	0.93
Benzo(b)fluoranthene (mg/kg)	2	30	NE
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	20	NE

I-97-SS-002		
Depth (ft)		0 - 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	10 D
Benzo(a)pyrene (mg/kg)	0.2	12 D
Benzo(b)fluoranthene (mg/kg)	2	15 D
Dibenz(a,h)anthracene (mg/kg)	0.2	2.3 JD
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	8 D

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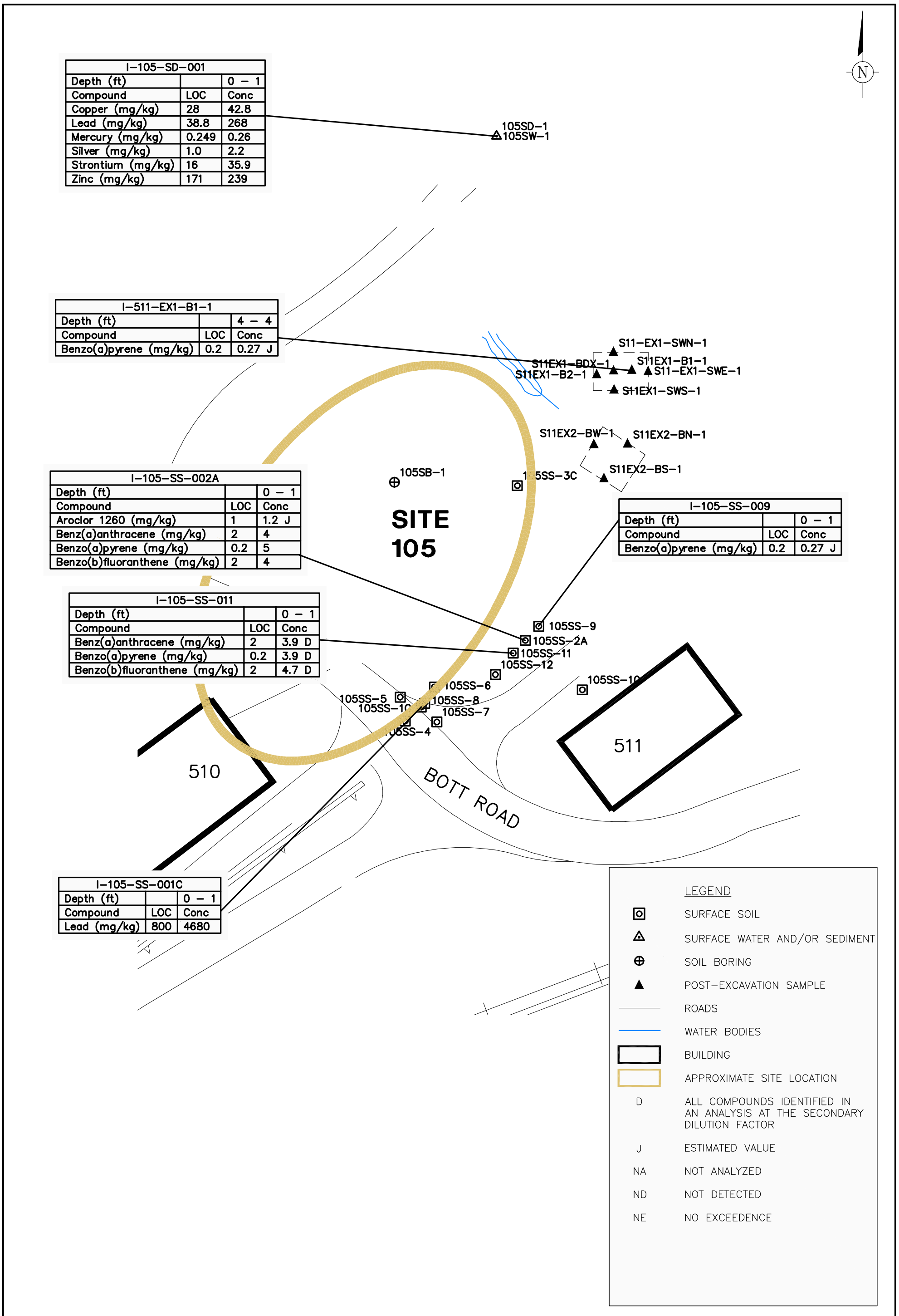
PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN
SHEET TITLE: HISTORICAL DATA EXCEEDING LOCs AT RI SITE 97/PICA 140 POST ENGINEERING MAINTENANCE SHOP		TASK/PHASE NUMBER: EA001	DRAWN BY: A. FOX
		PROJECT NUMBER: GP06PICA.P001	FIGURE 22-8



I-105-SD-001		
Depth (ft)		0 - 1
Compound	LOC	Conc
Copper (mg/kg)	28	42.8
Lead (mg/kg)	38.8	268
Mercury (mg/kg)	0.249	0.26
Silver (mg/kg)	1.0	2.2
Strontium (mg/kg)	16	35.9
Zinc (mg/kg)	171	239

I-511-EX1-B1-1		
Depth (ft)		4 - 4
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.27 J

I-105-SS-002A		
Depth (ft)		0 - 1
Compound	LOC	Conc
Aroclor 1260 (mg/kg)	1	1.2 J
Benz(a)anthracene (mg/kg)	2	4
Benzo(a)pyrene (mg/kg)	0.2	5
Benzo(b)fluoranthene (mg/kg)	2	4

I-105-SS-009		
Depth (ft)		0 - 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.27 J

I-105-SS-011		
Depth (ft)		0 - 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	3.9 D
Benzo(a)pyrene (mg/kg)	0.2	3.9 D
Benzo(b)fluoranthene (mg/kg)	2	4.7 D

I-105-SS-001C		
Depth (ft)		0 - 1
Compound	LOC	Conc
Lead (mg/kg)	800	4680

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Millersville, MD 21108
Tel: 410-987-4932 Fax: 410-987-0032
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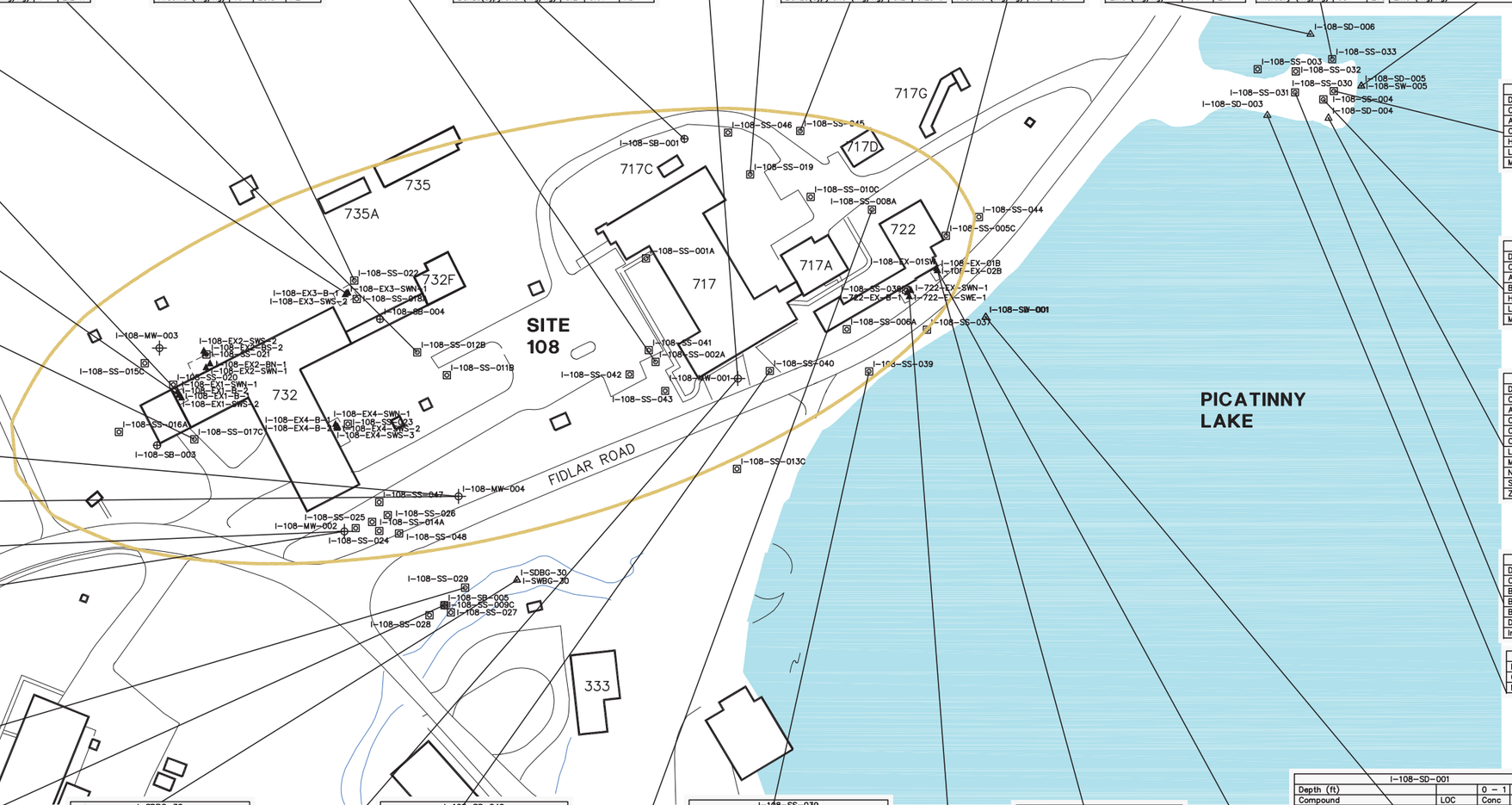
PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 105/PICA 142 PROPELLANT PLANT

TASK/PHASE NUMBER: EA001
DRAWN BY: A. FOX
PROJECT NUMBER: GP06PICA.P001
FIGURE 22-9



I-108-SW-002		
Date		07/12/96
Compound	LOC	Conc
Aluminum (ug/l)	190	1830
Arsenic (ug/l)	1.38	2.59
Copper (ug/l)	9.4	20.7
Cyanide (ug/l)	5.2	5.82
Iron (ug/l)	1790	3570
Lead (ug/l)	3.2	43.6
Manganese (ug/l)	383	1480
Mirex (ug/l)	.001	8.2
Zinc (ug/l)	122	241

I-108-SS-012B		
Depth (ft)		0 – 1
Compound	LOC	Conc
Aroclor 1254 (mg/kg)	1	2.2 N

I-108-SS-022			
Depth (ft)		0 – 1	2 – 4
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	23.8	NE

I-108-SS-002A		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.9
Lead (mg/kg)	800	953

I-108-MW-001.		
Date		10/21/96
Compound	LOC	Conc
Arsenic (ug/l)	3	7.32
Iron (ug/l)	300	7450
Manganese (ug/l)	50	2360

I-108-SB-001			
Depth (ft)		0 – 2	5 – 7
Compound	LOC	Conc	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.67	ND

I-108-SS-019		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	NE /14 D
Benzo(a)pyrene (mg/kg)	0.2	0.46 /17 D
Benzo(b)fluoranthene (mg/kg)	2	NE /20 D
Dibenz(a,h)anthracene (mg/kg)	0.2	ND /2.7 JD
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	ND /9.5 D

I-108-SS-045		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.25 J

I-108-SS-005C		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	30

I-108-SD-006		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	16.0	30.7
Copper (mg/kg)	28	153
Lead (mg/kg)	38.8	45.7
Mercury (mg/kg)	0.249	1 J
Zinc (mg/kg)	171	277

I-108-SS-033		
Depth (ft)		0 -
Compound	LOC	Cor
Arsenic (mg/kg)	19	29(
Barium (mg/kg)	59000	60(
Lead (mg/kg)	800	89
Mercury (mg/kg)	65	27

I-108-SD-005		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	16.0	24.3
Benzo(b)fluoranthene (mg/kg)	0.0272	0.24 J
Cadmium (mg/kg)	1.70	5.9
Chromium (mg/kg)	37.3	69.7 J
Chrysene (mg/kg)	0.0571	0.19 J
Copper (mg/kg)	28	151
Fluoranthene (mg/kg)	0.06423	0.28 J
Lead (mg/kg)	38.8	706
Mercury (mg/kg)	0.249	113 JD
Pyrene (mg/kg)	0.0530	0.24 J
Zinc (mg/kg)	171	5650 D

I-108-EX1-SWN-1		
Depth (ft)		.5 – .5
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.22 J

I-108-EX1-B-1			
Depth (ft)		1 – 1	1 – 1 (dup)
Compound	LOC	Conc	Conc
Lead (mg/kg)	800	856 J	NE

I-108-SS-017C		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	1.8
Benzo(b)fluoranthene (mg/kg)	2	2.7

I-108-MW-004		
Depth (ft)		0 – 2
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.7
Manganese (mg/kg)	5900	10000

I-108-MW-004.		
Date		10/21/96
Compound	LOC	Conc
Iron (ug/l)	300	1080
Manganese (ug/l)	50	947

I-108-MW-002.		
Date		10/22/96
Compound	LOC	Conc
Manganese (ug/l)	50	159

I-108-MW-002			
Depth (ft)		10 – 12	15 – 17
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	NE	27

I-108-SS-029			
Depth (ft)		0 – 1	2 – 4
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	36	NE

I-108-SS-009C		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	2
Mirex (mg/kg)	120	300

I-SDBG-30		
Depth (ft)		0 – .5
Compound	LOC	Conc
Fluoranthene (mg/kg)	0.06423	0.36
Phenanthrene (mg/kg)	0.0419	0.28
Pyrene (mg/kg)	0.0530	0.62

I-108-SS-040		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	2.5 D
Benzo(a)pyrene (mg/kg)	0.2	3 D
Benzo(b)fluoranthene (mg/kg)	2	2.7 D

I-108-SS-039		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	2.4 D
Benzo(a)pyrene (mg/kg)	0.2	2.5 D
Benzo(b)fluoranthene (mg/kg)	2	3.6 D
Dibenz(a,h)anthracene (mg/kg)	0.2	0.48 JD

I-108-EX-02B		
Depth (ft)		3 – 3
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.38

I-722-EX-SWE-1		
Depth (ft)		1 – 1
Compound	LOC	Conc
Mercury (mg/kg)	65	116 D

I-108-EX-01SW		
Depth (ft)		2.75 – 2.75
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.21 J

I-108-MW-001			
Depth (ft)		10 – 12	5 – 7
Compound	LOC	Conc	Conc
Benz(a)anthracene (mg/kg)	2	8	10
Benzo(a)pyrene (mg/kg)	0.2	10	10
Benzo(b)fluoranthene (mg/kg)	2	10	20
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	5	7

I-108-SS-008A			
Depth (ft)		0 – 1	0 – 1 (dup)
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	29	NE

I-108-SS-030		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	787
Chromium (mg/kg)	200	265
Hexachlorobenzene (mg/kg)	1	2.3
Lead (mg/kg)	800	3030 D
Mercury (mg/kg)	65	165 D

I-108-SS-004			
Depth (ft)		0 – 1	1 – 2
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	460	19.2 J
Barium (mg/kg)	59000	100000	NE
Hexachlorobenzene (mg/kg)	1	100	NE
Lead (mg/kg)	800	4480	NE
Mercury (mg/kg)	65	610	NE

I-108-SD-004		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	16.0	68.6
Cadmium (mg/kg)	1.70	3.7
Chromium (mg/kg)	37.3	81.2 J
Copper (mg/kg)	28	130
Lead (mg/kg)	38.8	317
Mercury (mg/kg)	0.249	106 JD
Nickel (mg/kg)	39.6	66.4
Silver (mg/kg)	1.0	1.3
Zinc (mg/kg)	171	3380 D

I-108-SS-031		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	9.7 D
Benzo(a)pyrene (mg/kg)	0.2	9.3 D
Benzo(b)fluoranthene (mg/kg)	2	12 D
Dibenz(a,h)anthracene (mg/kg)	0.2	1.6 JD
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	4.8 D

I-108-SD-003		
Depth (ft)		0 – 1
Compound	LOC	Conc
Mercury (mg/kg)	0.249	0.32 J

I-108-SD-001			
Depth (ft)		0 – 1	1 – 2
Compound	LOC	Conc	Conc
2-Methylnaphthalene (mg/kg)	0.0202	0.08	NA
Acenophthene (mg/kg)	0.00671	ND	19 JD
Anthracene (mg/kg)	0.03162	ND	37 D
Benz(a)anthracene (mg/kg)	0.0317	ND	37 D
Benzo(a)pyrene (mg/kg)	0.0319	ND	30 D
Benzo(b)fluoranthene (mg/kg)	0.0272	ND	27 D
Benzo(g,h,i)perylene (mg/kg)	0.29	ND	16 JD
Benzo(k)fluoranthene (mg/kg)	0.0272	ND	20 JD
Chrysene (mg/kg)	0.0571	0.3	40 JD
Copper (mg/kg)	28	69.1	34.2
Fluoranthene (mg/kg)	0.06423	0.12	120 D
Fluorene (mg/kg)	0.0212	0.06	17 JD
Indeno(1,2,3-c,d)pyrene (mg/kg)	0.078	ND	14 JD
Lead (mg/kg)	38.8	49.8	41.1
Mercury (mg/kg)	0.249	0.36	0.84 J
Naphthalene (mg/kg)	0.03275	0.13	15 JD
Phenanthrene (mg/kg)	0.0419	0.3	170 D
Pyrene (mg/kg)	0.0530	0.12	100 D
Silver (mg/kg)	1.0	50	1.8

LEGEND

- SURFACE SOIL
- SURFACE WATER AND/OR SEDIMENT
- SOIL BORING
- MONITORING WELL
- POST EXCAVATION SOIL SAMPLE
- ROADS
- WATER BODIES
- BUILDING
- APPROXIMATE SITE LOCATION
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

Date\time : Fri, 30 Jul 2010 – 11:19am
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Suite A
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Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 108/PICA 143 ORDNANCE FACILITIES AND FLARE TESTING LABORATORY

TASK/PHASE NUMBER	DRAWN BY
EA001	A. FOX

PROJECT NUMBER	FIGURE
GP06PICA.P001	22-10

Acad Version : R18.0s (LMS Tech)
User Name : AFOX

Date\Time : Wed, 28 Jul 2010 - 10:44am
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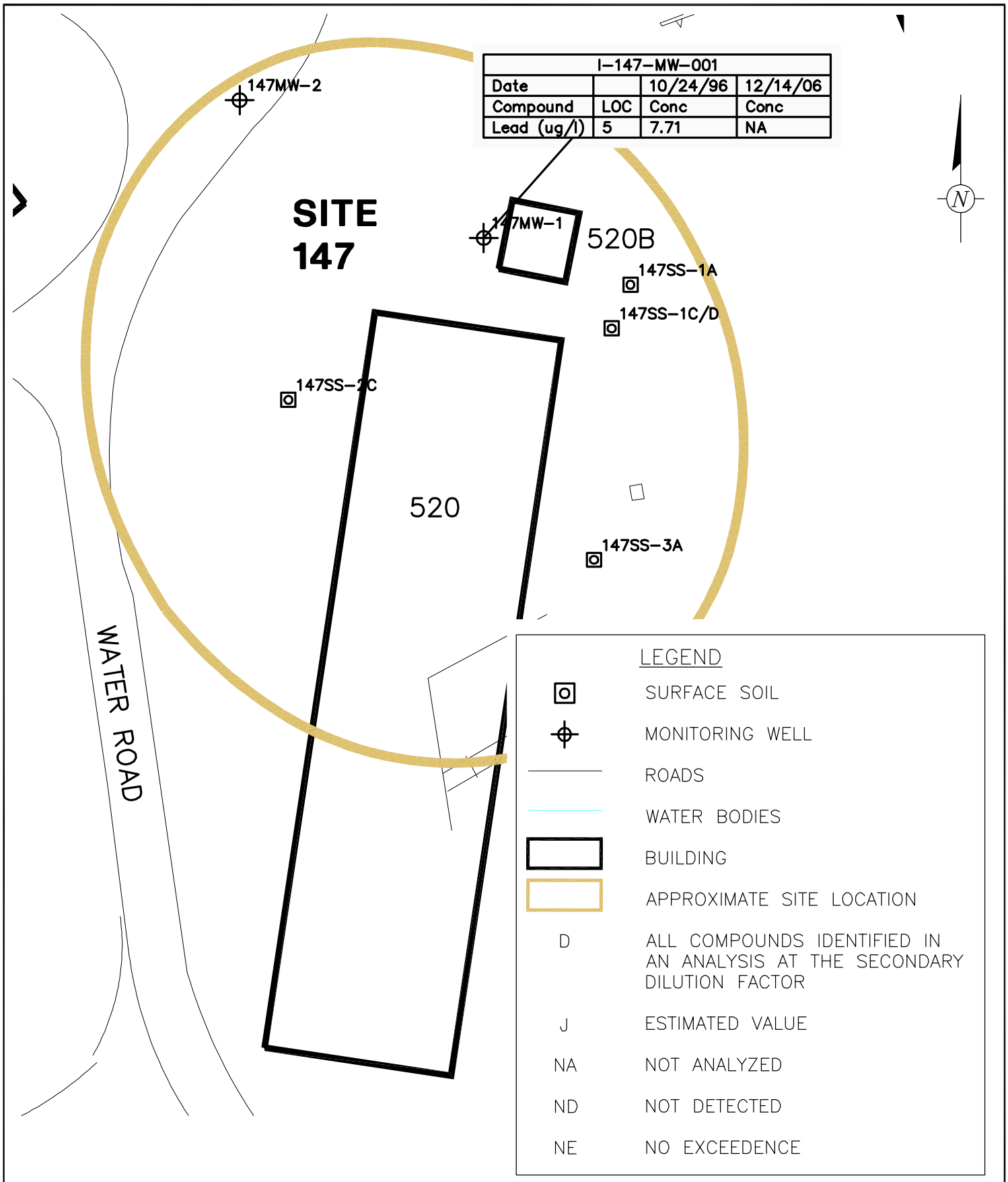

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PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
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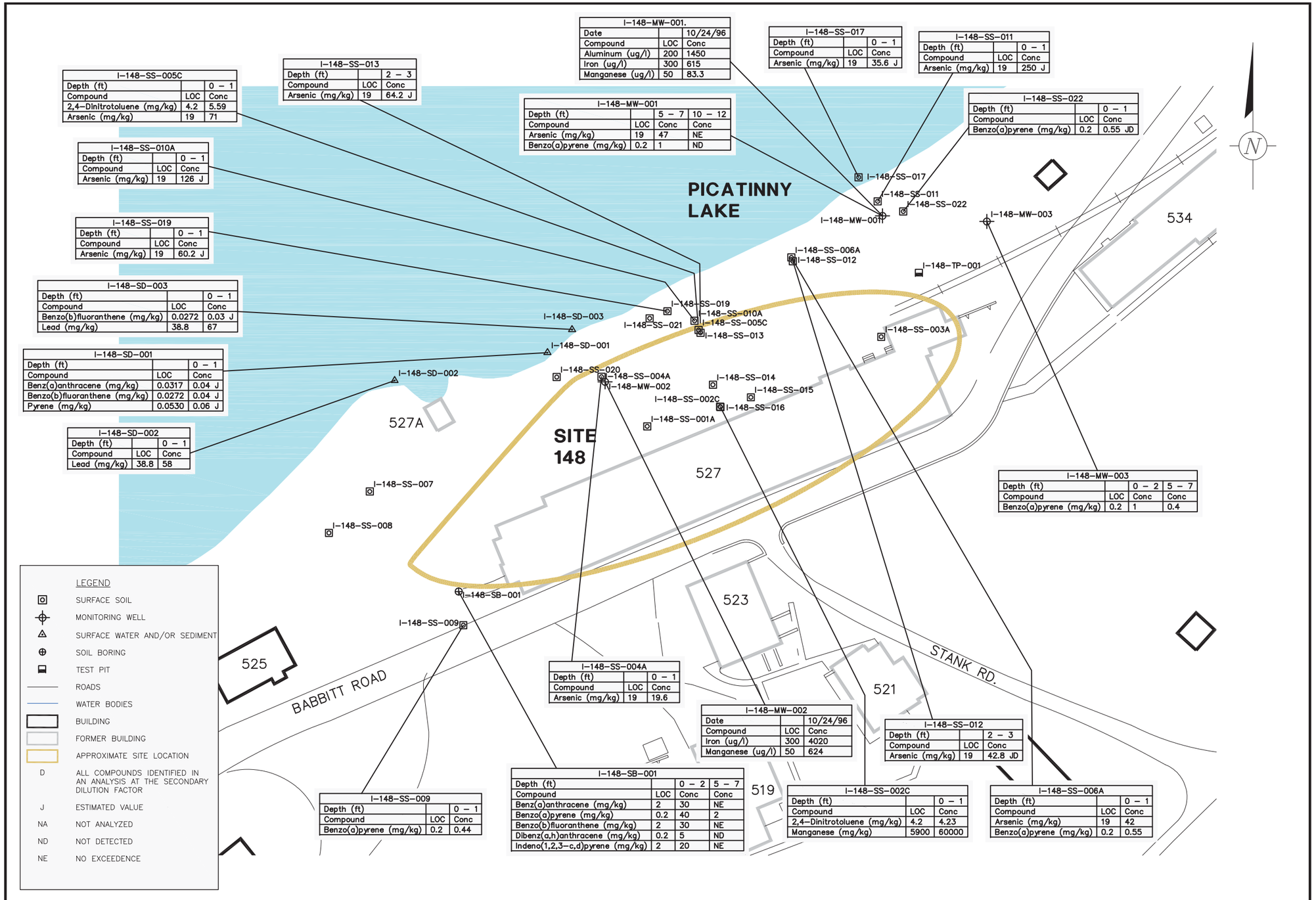
SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 147/PICA 064 POACH HOUSE

TASK/PHASE NUMBER: EA001
DRAWN BY: A. FOX
PROJECT NUMBER: GP06PICA.P001
FIGURE 22-11



I-148-SS-005C		
Depth (ft)		0 – 1
Compound	LOC	Conc
2,4-Dinitrotoluene (mg/kg)	4.2	5.59
Arsenic (mg/kg)	19	71

I-148-SS-013		
Depth (ft)		2 – 3
Compound	LOC	Conc
Arsenic (mg/kg)	19	64.2 J

I-148-MW-001.		
Date		10/24/96
Compound	LOC	Conc
Aluminum (ug/l)	200	1450
Iron (ug/l)	300	615
Manganese (ug/l)	50	83.3

I-148-SS-017		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	35.6 J

I-148-SS-011		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	250 J

I-148-MW-001			
Depth (ft)		5 – 7	10 – 12
Compound	LOC	Conc	Conc
Arsenic (mg/kg)	19	47	NE
Benzo(a)pyrene (mg/kg)	0.2	1	ND

I-148-SS-022		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.55 JD

I-148-SS-010A		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	126 J

I-148-SS-019		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	60.2 J

I-148-SD-003		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(b)fluoranthene (mg/kg)	0.0272	0.03 J
Lead (mg/kg)	38.8	67

I-148-SD-001		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	0.0317	0.04 J
Benzo(b)fluoranthene (mg/kg)	0.0272	0.04 J
Pyrene (mg/kg)	0.0530	0.06 J

I-148-SD-002		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	38.8	58

I-148-MW-003			
Depth (ft)		0 – 2	5 – 7
Compound	LOC	Conc	Conc
Benzo(a)pyrene (mg/kg)	0.2	1	0.4

I-148-SS-004A		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	19.6

I-148-MW-002		
Date		10/24/96
Compound	LOC	Conc
Iron (ug/l)	300	4020
Manganese (ug/l)	50	624

I-148-SS-012		
Depth (ft)		2 – 3
Compound	LOC	Conc
Arsenic (mg/kg)	19	42.8 JD

I-148-SB-001			
Depth (ft)		0 – 2	5 – 7
Compound	LOC	Conc	Conc
Benz(a)anthracene (mg/kg)	2	30	NE
Benzo(a)pyrene (mg/kg)	0.2	40	2
Benzo(b)fluoranthene (mg/kg)	2	30	NE
Dibenz(a,h)anthracene (mg/kg)	0.2	5	ND
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	20	NE

I-148-SS-002C		
Depth (ft)		0 – 1
Compound	LOC	Conc
2,4-Dinitrotoluene (mg/kg)	4.2	4.23
Manganese (mg/kg)	5900	60000

I-148-SS-006A		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	42
Benzo(a)pyrene (mg/kg)	0.2	0.55

I-148-SS-009		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.44

LEGEND

- SURFACE SOIL
- MONITORING WELL
- SURFACE WATER AND/OR SEDIMENT
- SOIL BORING
- TEST PIT
- ROADS
- WATER BODIES
- BUILDING
- FORMER BUILDING
- APPROXIMATE SITE LOCATION
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

Date\Time : Fri, 30 Jul 2010 – 12:02pm
Path\Name : G:\ENVCAD\BRIGHTON\ACT\PICATINNY\Pica 001\SITE 148\DWG\SITE-148.dwg – Layout Tab : LAYOUT1

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0 40
SCALE IN FEET

PLOT SIZE: 17x22

REV.	ISSUED DATE	DESCRIPTION

SEAL

ARCADIS

1114 Benfield Blvd.
Suite A
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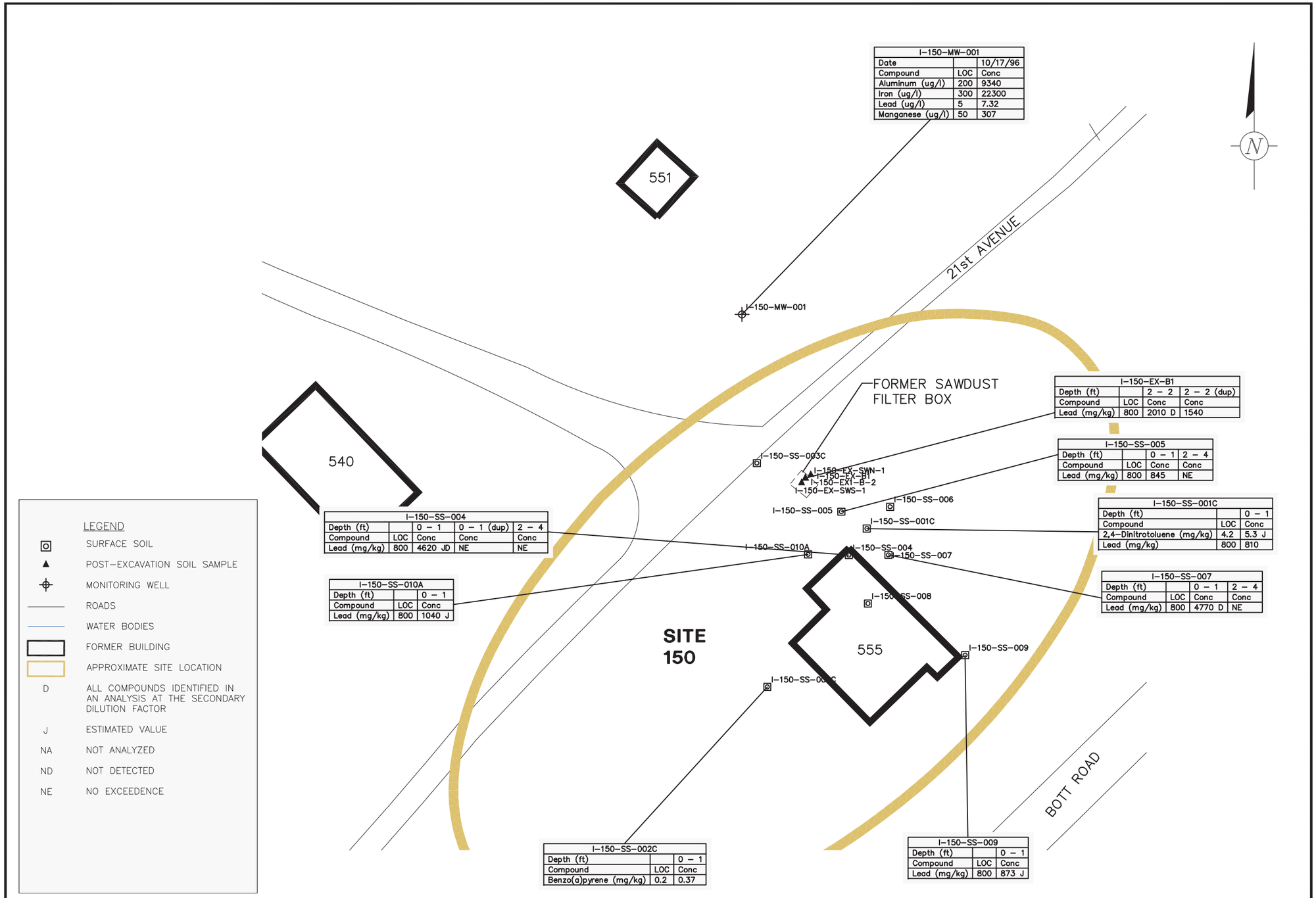
Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA
EXCEEDING LOCs AT
RI SITE 148/PICA 148
NITROCELLULOSE PRODUCTION FACILITY

TASK/PHASE NUMBER: EA002
DRAWN BY: A. FOX
PROJECT NUMBER: GP06PICA.P001
FIGURE: 22-12



I-150-MW-001		
Date		10/17/96
Compound	LOC	Conc
Aluminum (ug/l)	200	9340
Iron (ug/l)	300	22300
Lead (ug/l)	5	7.32
Manganese (ug/l)	50	307

I-150-EX-B1			
Depth (ft)		2 – 2	2 – 2 (dup)
Compound	LOC	Conc	Conc
Lead (mg/kg)	800	2010 D	1540

I-150-SS-005			
Depth (ft)		0 – 1	2 – 4
Compound	LOC	Conc	Conc
Lead (mg/kg)	800	845	NE

I-150-SS-001C		
Depth (ft)		0 – 1
Compound	LOC	Conc
2,4-Dinitrotoluene (mg/kg)	4.2	5.3 J
Lead (mg/kg)	800	810

I-150-SS-004				
Depth (ft)		0 – 1	0 – 1 (dup)	2 – 4
Compound	LOC	Conc	Conc	Conc
Lead (mg/kg)	800	4620 JD	NE	NE

I-150-SS-010A		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	1040 J

I-150-SS-007			
Depth (ft)		0 – 1	2 – 4
Compound	LOC	Conc	Conc
Lead (mg/kg)	800	4770 D	NE

I-150-SS-002C		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.37

I-150-SS-009		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	873 J

LEGEND

- SURFACE SOIL
- POST-EXCAVATION SOIL SAMPLE
- MONITORING WELL
- ROADS
- WATER BODIES
- FORMER BUILDING
- APPROXIMATE SITE LOCATION
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

Date\Time : Fri, 30 Jul 2010 – 11:36am
Path\Name : G:\ENVCAD\BRIGHTON\ACT\PICATINNY\Pica 001\site 150\DWG\SITE-150.dwg – Layout Tab : LAYOUT1

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SCALE IN FEET

PLOT SIZE: 17x22

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Millersville, MD 21108
Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

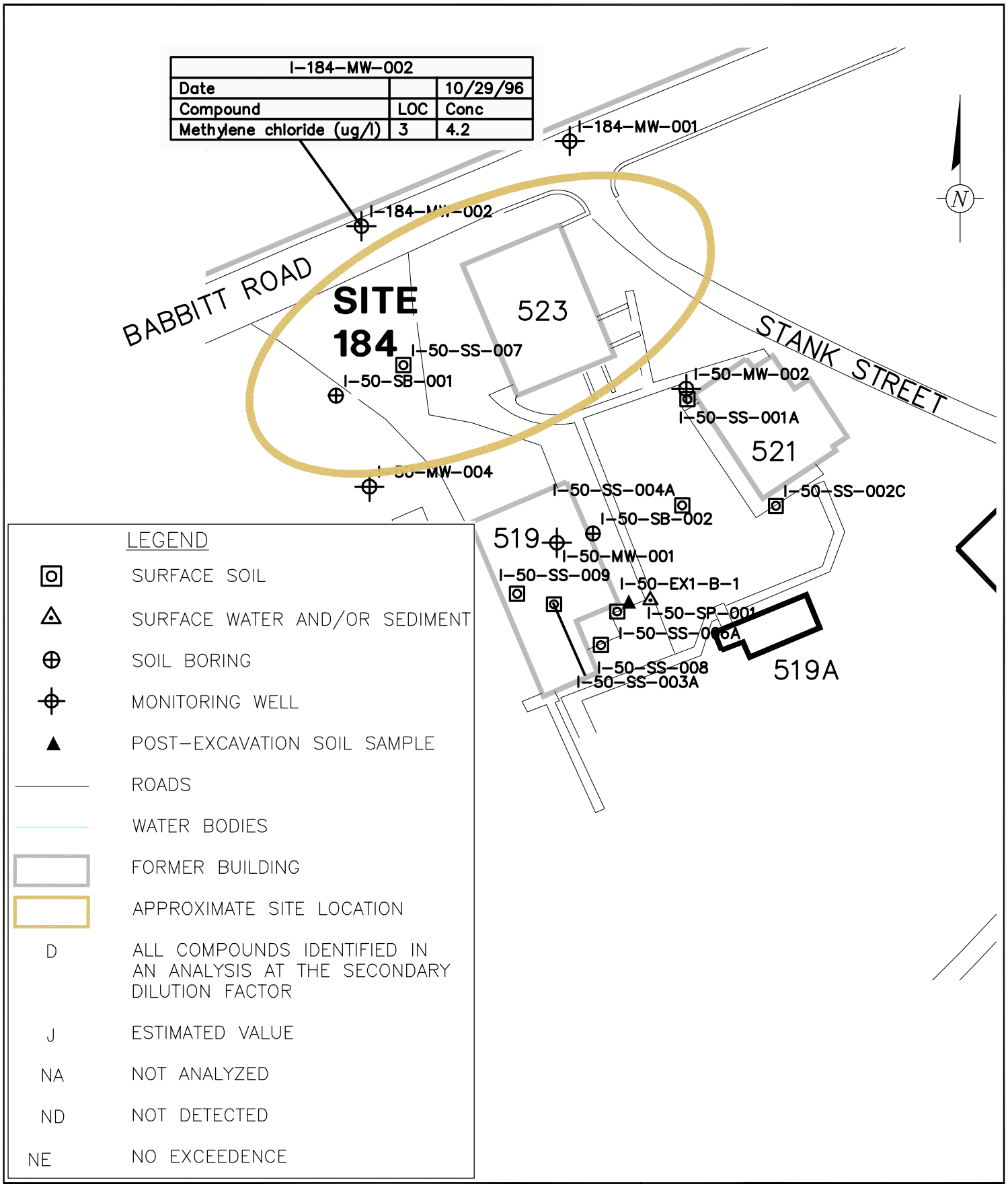
PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 150/PICA 150 PROPELLANT PLANT

TASK/PHASE NUMBER	DRAWN BY
EA002	A. FOX

PROJECT NUMBER	FIGURE
GP06PICA.P001	22-13



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PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
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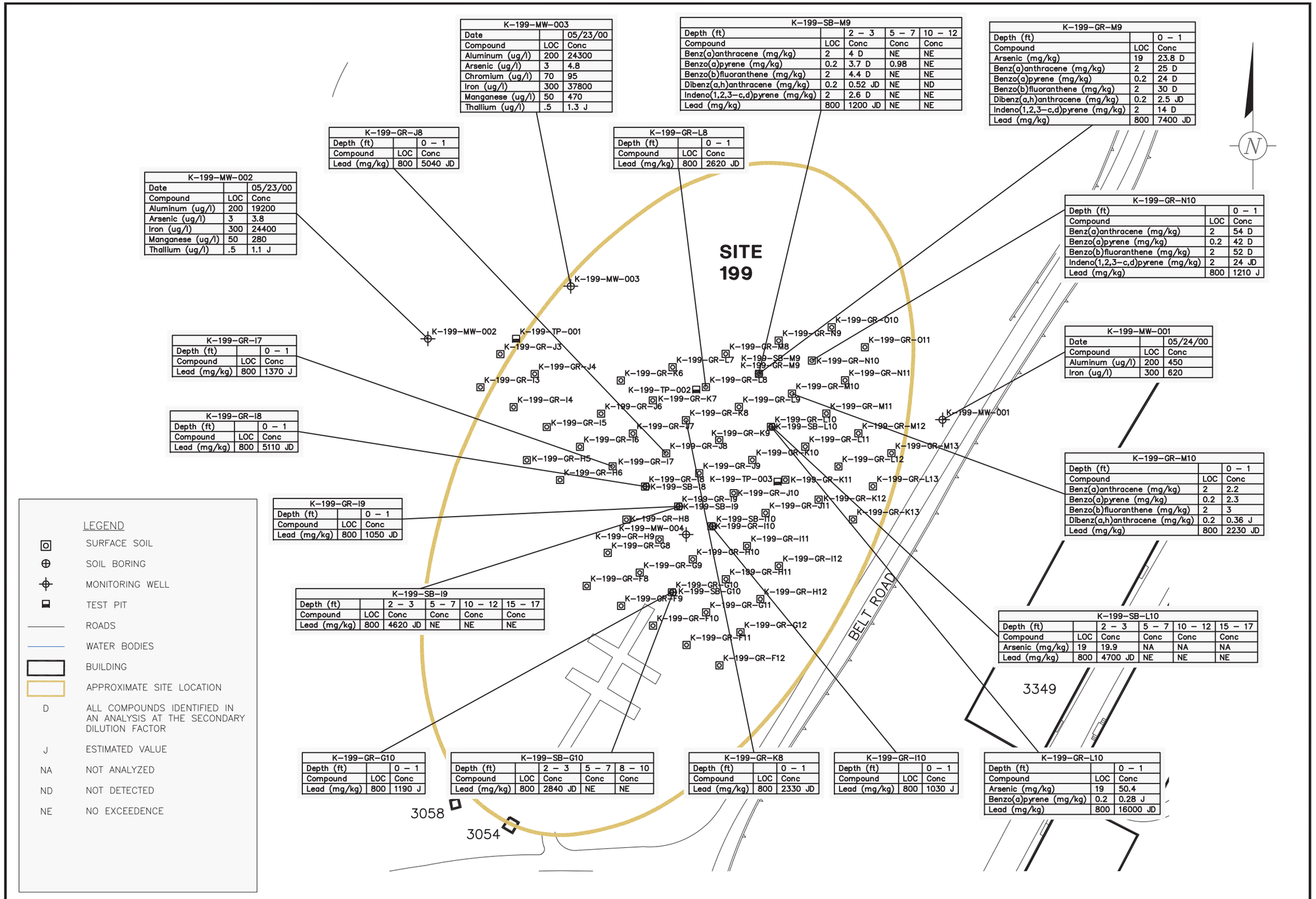
SHEET TITLE		TASK/PHASE NUMBER	DRAWN BY
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 184/PICA 056 REFRIGERATION AND INERT GAS PLANT		EA001	A. FOX
		PROJECT NUMBER	FIGURE
		GP06PICA.P001	22-14



K-199-MW-003		
Date		05/23/00
Compound	LOC	Conc
Aluminum (ug/l)	200	24300
Arsenic (ug/l)	3	4.8
Chromium (ug/l)	70	95
Iron (ug/l)	300	37800
Manganese (ug/l)	50	470
Thallium (ug/l)	.5	1.3 J

K-199-SB-M9				
Depth (ft)		2 – 3	5 – 7	10 – 12
Compound	LOC	Conc	Conc	Conc
Benz(a)anthracene (mg/kg)	2	4 D	NE	NE
Benzo(a)pyrene (mg/kg)	0.2	3.7 D	0.98	NE
Benzo(b)fluoranthene (mg/kg)	2	4.4 D	NE	NE
Dibenz(a,h)anthracene (mg/kg)	0.2	0.52 JD	NE	ND
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	2.6 D	NE	NE
Lead (mg/kg)	800	1200 JD	NE	NE

K-199-GR-M9		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	23.8 D
Benz(a)anthracene (mg/kg)	2	25 D
Benzo(a)pyrene (mg/kg)	0.2	24 D
Benzo(b)fluoranthene (mg/kg)	2	30 D
Dibenz(a,h)anthracene (mg/kg)	0.2	2.5 JD
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	14 D
Lead (mg/kg)	800	7400 JD

K-199-GR-J8		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	5040 JD

K-199-GR-L8		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	2620 JD

K-199-MW-002		
Date		05/23/00
Compound	LOC	Conc
Aluminum (ug/l)	200	19200
Arsenic (ug/l)	3	3.8
Iron (ug/l)	300	24400
Manganese (ug/l)	50	280
Thallium (ug/l)	.5	1.1 J

K-199-GR-N10		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	54 D
Benzo(a)pyrene (mg/kg)	0.2	42 D
Benzo(b)fluoranthene (mg/kg)	2	52 D
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	24 JD
Lead (mg/kg)	800	1210 J

K-199-GR-I7		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	1370 J

K-199-MW-001		
Date		05/24/00
Compound	LOC	Conc
Aluminum (ug/l)	200	450
Iron (ug/l)	300	620

K-199-GR-I8		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	5110 JD

K-199-GR-M10		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	2.2
Benzo(a)pyrene (mg/kg)	0.2	2.3
Benzo(b)fluoranthene (mg/kg)	2	3
Dibenz(a,h)anthracene (mg/kg)	0.2	0.36 J
Lead (mg/kg)	800	2230 JD

K-199-GR-I9		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	1050 JD

K-199-SB-I9					
Depth (ft)		2 – 3	5 – 7	10 – 12	15 – 17
Compound	LOC	Conc	Conc	Conc	Conc
Lead (mg/kg)	800	4620 JD	NE	NE	NE

K-199-SB-L10					
Depth (ft)		2 – 3	5 – 7	10 – 12	15 – 17
Compound	LOC	Conc	Conc	Conc	Conc
Arsenic (mg/kg)	19	19.9	NA	NA	NA
Lead (mg/kg)	800	4700 JD	NE	NE	NE

K-199-GR-G10		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	1190 J

K-199-SB-G10				
Depth (ft)		2 – 3	5 – 7	8 – 10
Compound	LOC	Conc	Conc	Conc
Lead (mg/kg)	800	2840 JD	NE	NE

K-199-GR-K8		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	2330 JD

K-199-GR-I10		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	1030 J

K-199-GR-L10		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	50.4
Benzo(a)pyrene (mg/kg)	0.2	0.28 J
Lead (mg/kg)	800	16000 JD

LEGEND

- SURFACE SOIL
- SOIL BORING
- MONITORING WELL
- TEST PIT
- ROADS
- WATER BODIES
- BUILDING
- APPROXIMATE SITE LOCATION
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

Date\Time : Wed, 28 Jul 2010 – 1:15pm
Path\Name : G:\ENVCAD\BRIGHTON\ACT\PICATINNY\Pica 001\SITE 199\DWG\SITE-199.dwg – Layout Tab : LAYOUT1

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0 50
SCALE IN FEET

PLOT SIZE: 17x22

REV.	ISSUED DATE	DESCRIPTION

SEAL

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1114 Benfield Blvd.
Suite A
Millersville, MD 21108
Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

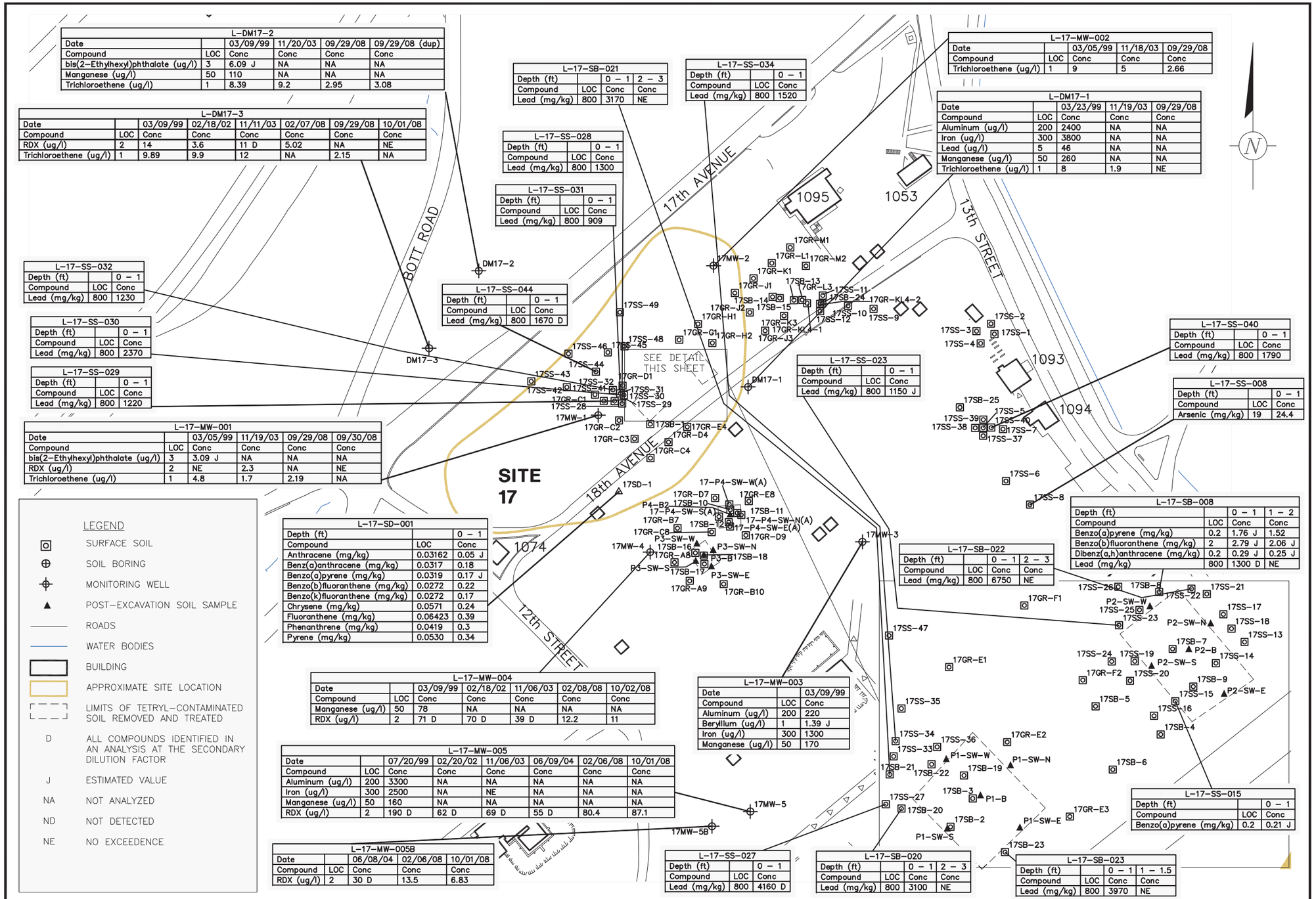
PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA
EXCEEDING LOCs AT
RI SITE 199/PICA 199
ABANDONED PISTOL RANGE

TASK/PHASE NUMBER	DRAWN BY
EA001	A. FOX

PROJECT NUMBER	FIGURE
GP06PICA.P001	22-15



L-DM17-2					
Date		03/09/99	11/20/03	09/29/08	09/29/08 (dup)
Compound	LOC	Conc	Conc	Conc	Conc
bis(2-Ethylhexyl)phthalate (ug/l)	3	6.09 J	NA	NA	NA
Manganese (ug/l)	50	110	NA	NA	NA
Trichloroethene (ug/l)	1	8.39	9.2	2.95	3.08

L-DM17-3							
Date		03/09/99	02/18/02	11/11/03	02/07/08	09/29/08	10/01/08
Compound	LOC	Conc	Conc	Conc	Conc	Conc	Conc
RDX (ug/l)	2	14	3.6	11 D	5.02	NA	NE
Trichloroethene (ug/l)	1	9.89	9.9	12	NA	2.15	NA

L-17-SB-021			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
Lead (mg/kg)	800	3170	NE

L-17-SS-034			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Lead (mg/kg)	800	1520	

L-17-MW-002				
Date		03/05/99	11/18/03	09/29/08
Compound	LOC	Conc	Conc	Conc
Trichloroethene (ug/l)	1	9	5	2.66

L-DM17-1				
Date		03/23/99	11/19/03	09/29/08
Compound	LOC	Conc	Conc	Conc
Aluminum (ug/l)	200	2400	NA	NA
Iron (ug/l)	300	3800	NA	NA
Lead (ug/l)	5	46	NA	NA
Manganese (ug/l)	50	260	NA	NA
Trichloroethene (ug/l)	1	8	1.9	NE

L-17-SS-028			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Lead (mg/kg)	800	1300	

L-17-SS-031			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Lead (mg/kg)	800	909	

L-17-SS-032			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Lead (mg/kg)	800	1230	

L-17-SS-044			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Lead (mg/kg)	800	1670 D	

L-17-SS-030			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Lead (mg/kg)	800	2370	

L-17-SS-029			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Lead (mg/kg)	800	1220	

L-17-SS-023			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Lead (mg/kg)	800	1150 J	

L-17-SS-040			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Lead (mg/kg)	800	1790	

L-17-SS-008			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Arsenic (mg/kg)	19	24.4	

L-17-MW-001					
Date		03/05/99	11/19/03	09/29/08	09/30/08
Compound	LOC	Conc	Conc	Conc	Conc
bis(2-Ethylhexyl)phthalate (ug/l)	3	3.09 J	NA	NA	NA
RDX (ug/l)	2	NE	2.3	NA	NE
Trichloroethene (ug/l)	1	4.8	1.7	2.19	NA

L-17-SB-008			
Depth (ft)		0 – 1	1 – 2
Compound	LOC	Conc	Conc
Benzo(a)pyrene (mg/kg)	0.2	1.76 J	1.52
Benzo(b)fluoranthene (mg/kg)	2	2.79 J	2.06 J
Dibenz(a,h)anthracene (mg/kg)	0.2	0.29 J	0.25 J
Lead (mg/kg)	800	1300 D	NE

L-17-SD-001		
Depth (ft)		0 – 1
Compound	LOC	Conc
Anthracene (mg/kg)	0.03162	0.05 J
Benz(a)anthracene (mg/kg)	0.0317	0.18
Benzo(a)pyrene (mg/kg)	0.0319	0.17 J
Benzo(b)fluoranthene (mg/kg)	0.0272	0.22
Benzo(k)fluoranthene (mg/kg)	0.0272	0.17
Chrysene (mg/kg)	0.0571	0.24
Fluoranthene (mg/kg)	0.06423	0.39
Phenanthrene (mg/kg)	0.0419	0.3
Pyrene (mg/kg)	0.0530	0.34

L-17-SB-022			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
Lead (mg/kg)	800	6750	NE

L-17-MW-004						
Date		03/09/99	02/18/02	11/06/03	02/08/08	10/02/08
Compound	LOC	Conc	Conc	Conc	Conc	Conc
Manganese (ug/l)	50	78	NA	NA	NA	NA
RDX (ug/l)	2	71 D	70 D	39 D	12.2	11

L-17-MW-003		
Date		03/09/99
Compound	LOC	Conc
Aluminum (ug/l)	200	220
Beryllium (ug/l)	1	1.39 J
Iron (ug/l)	300	1300
Manganese (ug/l)	50	170

L-17-MW-005							
Date		07/20/99	02/20/02	11/06/03	06/09/04	02/06/08	10/01/08
Compound	LOC	Conc	Conc	Conc	Conc	Conc	Conc
Aluminum (ug/l)	200	3300	NA	NA	NA	NA	NA
Iron (ug/l)	300	2500	NA	NE	NA	NA	NA
Manganese (ug/l)	50	160	NA	NA	NA	NA	NA
RDX (ug/l)	2	190 D	62 D	69 D	55 D	80.4	87.1

L-17-SS-015			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Benzo(a)pyrene (mg/kg)	0.2	0.21 J	

L-17-MW-005B				
Date		06/08/04	02/06/08	10/01/08
Compound	LOC	Conc	Conc	Conc
RDX (ug/l)	2	30 D	13.5	6.83

L-17-SS-027			
Depth (ft)		0 – 1	
Compound	LOC	Conc	
Lead (mg/kg)	800	4160 D	

L-17-SB-020				
Depth (ft)		0 – 1	2 – 3	
Compound	LOC	Conc	Conc	
Lead (mg/kg)	800	3100	NE	

L-17-SB-023				
Depth (ft)		0 – 1	1 – 1.5	
Compound	LOC	Conc	Conc	
Lead (mg/kg)	800	3970	NE	

LEGEND

- SURFACE SOIL
- SOIL BORING
- MONITORING WELL
- POST-EXCAVATION SOIL SAMPLE
- ROADS
- WATER BODIES
- BUILDING
- APPROXIMATE SITE LOCATION
- LIMITS OF TETRYL-CONTAMINATED SOIL REMOVED AND TREATED
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

0 80
SCALE IN FEET

PLOT SIZE: 17x22

REV. ISSUED DATE DESCRIPTION

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Suite A
Millersville, MD 21108
Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

PROJECT TITLE: PICATINNY ARSENAL NEW JERSEY

PROJECT MANAGER: T. LLEWELLYN

DEPARTMENT MANAGER: M. MOHIUDDIN

LEAD DESIGN PROF.: K. PANHORST

CHECKED BY: T. LLEWELLYN

SHEET TITLE: HISTORICAL DATA EXCEEDING LOCs AT RI SITE 17/PICA 001 NORTHERN TETRYL PITS

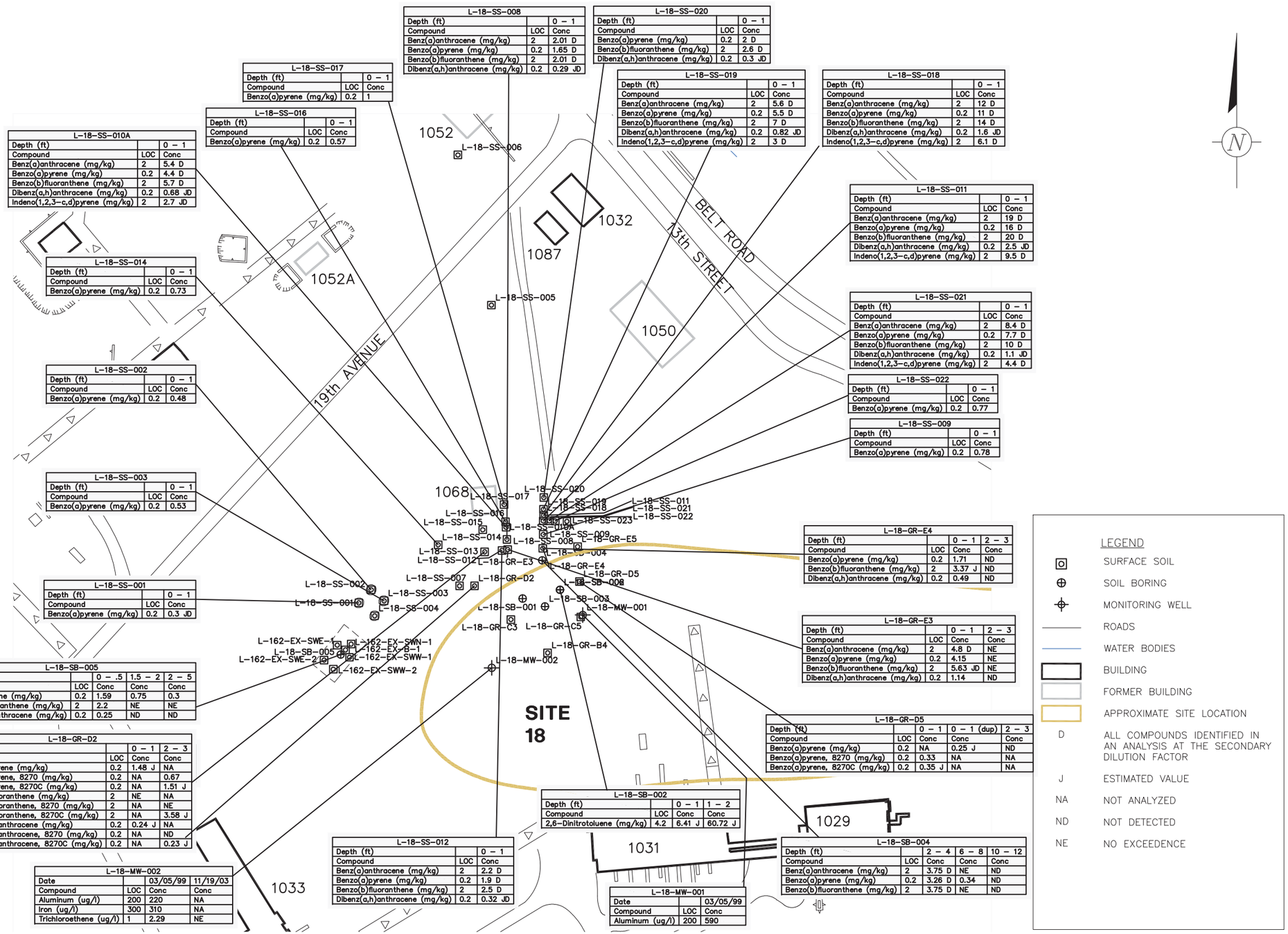
TASK/PHASE NUMBER: EA001

DRAWN BY: A. FOX

PROJECT NUMBER: GP06PICA.P001

FIGURE: 22-16

Date\Time : Fri, 30 Jul 2010 - 11:42am
Path\Name : G:\ENVCAD\BRIGHTON\ACT\PICATINNY\Pica 001\SITE 17\DWG\SITE-17.dwg - Layout Tab : LAYOUT1
Acad Version : K18.0s (LMS Tech)
User Name : AFOX



L-18-SS-008		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	2.01 D
Benzo(a)pyrene (mg/kg)	0.2	1.65 D
Benzo(b)fluoranthene (mg/kg)	2	2.01 D
Dibenz(a,h)anthracene (mg/kg)	0.2	0.29 JD

L-18-SS-020		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	2 D
Benzo(b)fluoranthene (mg/kg)	2	2.6 D
Dibenz(a,h)anthracene (mg/kg)	0.2	0.3 JD

L-18-SS-017		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	1

L-18-SS-019		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	5.6 D
Benzo(a)pyrene (mg/kg)	0.2	5.5 D
Benzo(b)fluoranthene (mg/kg)	2	7 D
Dibenz(a,h)anthracene (mg/kg)	0.2	0.82 JD
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	3 D

L-18-SS-018		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	12 D
Benzo(a)pyrene (mg/kg)	0.2	11 D
Benzo(b)fluoranthene (mg/kg)	2	14 D
Dibenz(a,h)anthracene (mg/kg)	0.2	1.6 JD
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	6.1 D

L-18-SS-016		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.57

L-18-SS-010A		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	5.4 D
Benzo(a)pyrene (mg/kg)	0.2	4.4 D
Benzo(b)fluoranthene (mg/kg)	2	5.7 D
Dibenz(a,h)anthracene (mg/kg)	0.2	0.68 JD
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	2.7 JD

L-18-SS-011		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	19 D
Benzo(a)pyrene (mg/kg)	0.2	16 D
Benzo(b)fluoranthene (mg/kg)	2	20 D
Dibenz(a,h)anthracene (mg/kg)	0.2	2.5 JD
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	9.5 D

L-18-SS-014		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.73

L-18-SS-021		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	8.4 D
Benzo(a)pyrene (mg/kg)	0.2	7.7 D
Benzo(b)fluoranthene (mg/kg)	2	10 D
Dibenz(a,h)anthracene (mg/kg)	0.2	1.1 JD
Indeno(1,2,3-c,d)pyrene (mg/kg)	2	4.4 D

L-18-SS-002		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.48

L-18-SS-022		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.77

L-18-SS-009		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.78

L-18-SS-003		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.53

L-18-GR-E4			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
Benzo(a)pyrene (mg/kg)	0.2	1.71	ND
Benzo(b)fluoranthene (mg/kg)	2	3.37 J	ND
Dibenz(a,h)anthracene (mg/kg)	0.2	0.49	ND

L-18-SS-001		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.3 JD

L-18-GR-E3			
Depth (ft)		0 – 1	2 – 3
Compound	LOC	Conc	Conc
Benz(a)anthracene (mg/kg)	2	4.8 D	NE
Benzo(a)pyrene (mg/kg)	0.2	4.15	NE
Benzo(b)fluoranthene (mg/kg)	2	5.63 JD	NE
Dibenz(a,h)anthracene (mg/kg)	0.2	1.14	ND

L-18-SB-005				
Depth (ft)		0 – .5	1.5 – 2	2 – 5
Compound	LOC	Conc	Conc	Conc
Benzo(a)pyrene (mg/kg)	0.2	1.59	0.75	0.3
Benzo(b)fluoranthene (mg/kg)	2	2.2	NE	NE
Dibenz(a,h)anthracene (mg/kg)	0.2	0.25	ND	ND

L-18-GR-D5				
Depth (ft)		0 – 1	0 – 1 (dup)	2 – 3
Compound	LOC	Conc	Conc	Conc
Benzo(a)pyrene (mg/kg)	0.2	NA	0.25 J	ND
Benzo(a)pyrene, 8270 (mg/kg)	0.2	0.33	NA	NA
Benzo(a)pyrene, 8270C (mg/kg)	0.2	0.35 J	NA	NA

L-18-GR-D2				
Depth (ft)		0 – 1	2 – 3	
Compound	LOC	Conc	Conc	
Benzo(a)pyrene (mg/kg)	0.2	1.48 J	NA	
Benzo(a)pyrene, 8270 (mg/kg)	0.2	NA	0.67	
Benzo(a)pyrene, 8270C (mg/kg)	0.2	NA	1.51 J	
Benzo(b)fluoranthene (mg/kg)	2	NE	NA	
Benzo(b)fluoranthene, 8270 (mg/kg)	2	NA	NE	
Benzo(b)fluoranthene, 8270C (mg/kg)	2	NA	3.58 J	
Dibenz(a,h)anthracene (mg/kg)	0.2	0.24 J	NA	
Dibenz(a,h)anthracene, 8270 (mg/kg)	0.2	NA	ND	
Dibenz(a,h)anthracene, 8270C (mg/kg)	0.2	NA	0.23 J	

L-18-SB-002			
Depth (ft)		0 – 1	1 – 2
Compound	LOC	Conc	Conc
2,6-Dinitrotoluene (mg/kg)	4.2	6.41 J	60.72 J

L-18-SB-004					
Depth (ft)		2 – 4	6 – 8	10 – 12	
Compound	LOC	Conc	Conc	Conc	
Benz(a)anthracene (mg/kg)	2	3.75 D	NE	ND	
Benzo(a)pyrene (mg/kg)	0.2	3.26 D	0.34	ND	
Benzo(b)fluoranthene (mg/kg)	2	3.75 D	NE	ND	

L-18-SS-012		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	2.2 D
Benzo(a)pyrene (mg/kg)	0.2	1.9 D
Benzo(b)fluoranthene (mg/kg)	2	2.5 D
Dibenz(a,h)anthracene (mg/kg)	0.2	0.32 JD

L-18-MW-002			
Date		03/05/99	11/19/03
Compound	LOC	Conc	Conc
Aluminum (ug/l)	200	220	NA
Iron (ug/l)	300	310	NA
Trichloroethene (ug/l)	1	2.29	NE

L-18-MW-001		
Date		03/05/99
Compound	LOC	Conc
Aluminum (ug/l)	200	590

LEGEND

- SURFACE SOIL
- SOIL BORING
- MONITORING WELL
- ROADS
- WATER BODIES
- BUILDING
- FORMER BUILDING
- APPROXIMATE SITE LOCATION
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

0 60
SCALE IN FEET

PLOT SIZE: 17x22

REV. ISSUED DATE DESCRIPTION

SEAL

ARCADIS

1114 Benfield Blvd.
Suite A
Millersville, MD 21108
Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER: T. LLEWELLYN
DEPARTMENT MANAGER: M. MOHIUDDIN
LEAD DESIGN PROF.: K. PANHORST
CHECKED BY: T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA EXCEEDING
LOCs AT
RI SITE 18/PICA 001
SOUTHERN TETRYL PITS

TASK/PHASE NUMBER: EA001
DRAWN BY: A. FOX
PROJECT NUMBER: GP06PICA.P001
FIGURE: 22-17

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Date\Time : Fri, 30 Jul 2010 - 12:00pm
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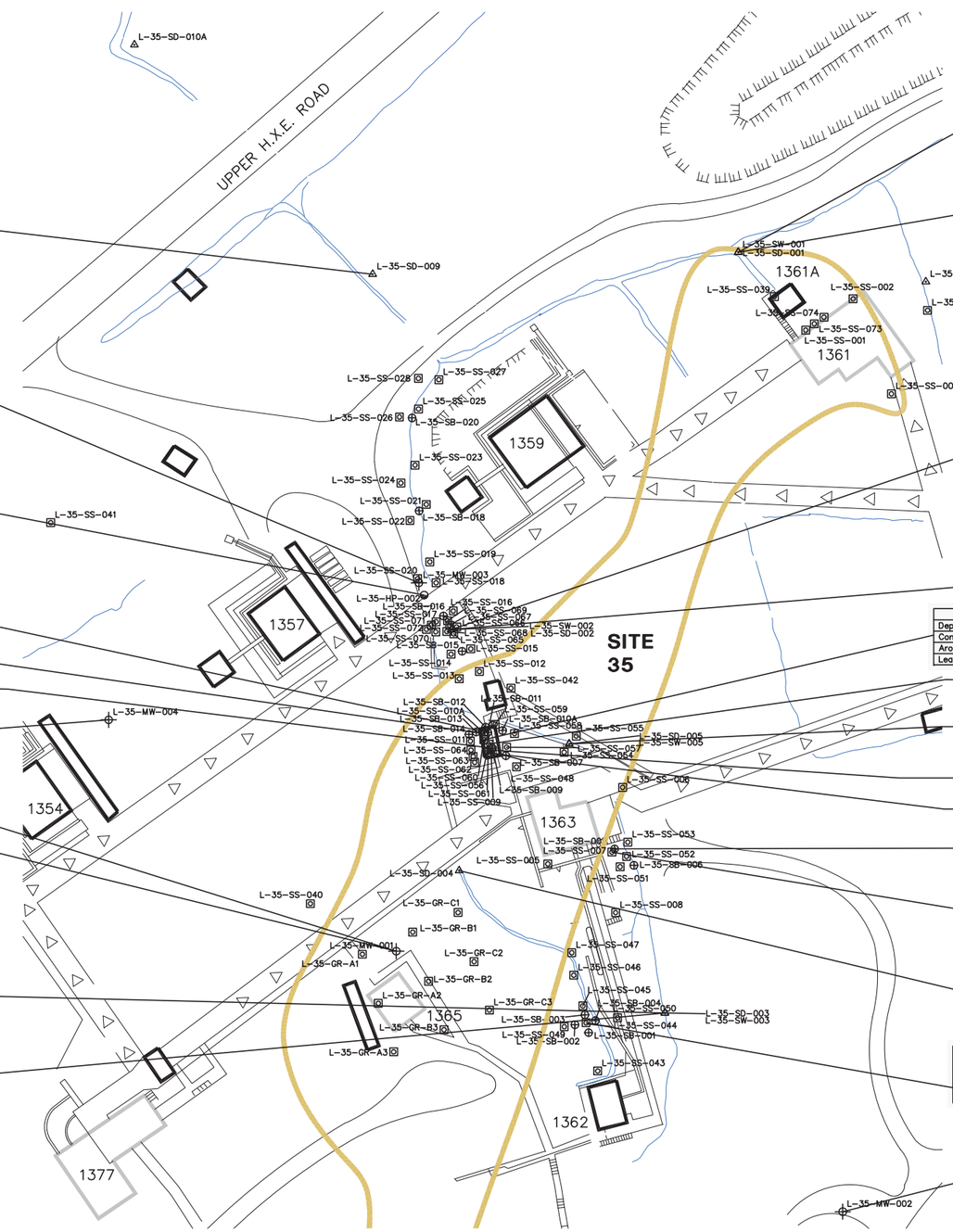

L-35-SW-001			
Date		12/8/1998	12/08/98 (dup)
Compound	LOC	Conc	Conc
Aluminum (ug/l)	190	3770 J	2150 J
Arsenic (ug/l)	1.38	5.82	3.58
bis(2-Ethylhexyl)phthalate (ug/l)	1.2	1.4 J	NE
Cadmium (ug/l)	.28	1.1 J	0.42 J
Cobalt (ug/l)	11	18.9 J	NE
Copper (ug/l)	9.4	30.4 J	12.6 J
Iron (ug/l)	1790	26900	20300
Lead (ug/l)	3.2	63.6	63.3
Manganese (ug/l)	383	1680 J	696 J
Phosphorus (ug/l)	50	224	240
Zinc (ug/l)	122	304 J	160 J

L-35-SD-001			
Depth (ft)		0 - 1	2
Compound	LOC	Conc	Conc
Chromium (mg/kg)	37.3	NE	270
Lead (mg/kg)	38.8	NE	140
Mercury (mg/kg)	0.249	ND	3.58
Zinc (mg/kg)	171	NE	371

L-35-SW-002			
Date		12/3/1998	5/7/1999
Compound	LOC	Conc	Conc
Aluminum (ug/l)	190	42800	NA
Arsenic (ug/l)	1.38	41.7	NA
Cadmium (ug/l)	.28	1.63	NA
Chromium (ug/l)	11.4	33.1	NA
Cobalt (ug/l)	11	21	NA
Copper (ug/l)	9.4	36.5 J	NA
Iron (ug/l)	1790	765000	NA
Lead (ug/l)	3.2	2840	NA
Manganese (ug/l)	383	8030	NA
Phosphorus (ug/l)	50	NA	200
Sulfide (ug/l)	2200	NA	3500
Zinc (ug/l)	122	354	NA

L-35-SD-002			
Depth (ft)		0 - 1	2 - 3
Compound	LOC	Conc	Conc
Aroclor 1254 (mg/kg)	0.060	23 D	NE
Arsenic (mg/kg)	16.0	31.7	NA
Cadmium (mg/kg)	1.70	2.76	NA
Chromium (mg/kg)	37.3	76.5	NA
Copper (mg/kg)	28	108	NA
Lead (mg/kg)	38.8	4410	NE
Mercury (mg/kg)	0.249	0.26	NA
Zinc (mg/kg)	171	479	NA

L-35-SD-009		
Depth (ft)		0 - 1
Compound	LOC	Conc
Lead (mg/kg)	38.8	68.4

L-35-MW-003		
Date		3/17/1999
Compound	LOC	Conc
Aluminum (ug/l)	200	6300
Arsenic (ug/l)	3	3.4 J
Iron (ug/l)	300	12200
Lead (ug/l)	5	7.69
Manganese (ug/l)	50	250

L-35-HP-002		
Date		10/7/1998
Compound	LOC	Conc
Aluminum (ug/l)	200	14000
Iron (ug/l)	300	27200
Lead (ug/l)	5	10.2
Manganese (ug/l)	50	1250

L-35-SB-011			
Depth (ft)		0 - 1	1 - 2
Compound	LOC	Conc	Conc
Aroclor 1254 (mg/kg)	1	4 D	NE
Lead (mg/kg)	800	4940 D	NE

L-35-SB-009		
Depth (ft)		0 - 1
Compound	LOC	Conc
Aroclor 1254 (mg/kg)	1	6.5 D
Lead (mg/kg)	800	960

L-35-SS-010A		
Depth (ft)		0 - 1
Compound	LOC	Conc
Aroclor 1254 (mg/kg)	1	7.95 D
Lead (mg/kg)	800	5670

L-35-MW-004		
Date		3/17/1999
Compound	LOC	Conc
Aluminum (ug/l)	200	1200
Iron (ug/l)	300	3200
Manganese (ug/l)	50	1500

L-35-MW-001		
Depth (ft)		0 - 2
Compound	LOC	Conc
Aroclor 1254 (mg/kg)	1	1.02 JND

L-35-MW-001.		
Date		3/17/1999
Compound	LOC	Conc
bis(2-Ethylhexyl)phthalate (ug/l)	3	4.59 J
Iron (ug/l)	300	590
Manganese (ug/l)	50	53

L-35-SW-003		
Date		12/3/1998
Compound	LOC	Conc
Aluminum (ug/l)	190	4500
Arsenic (ug/l)	1.38	5.19
Cadmium (ug/l)	.28	2.94
Cobalt (ug/l)	11	32.7
Copper (ug/l)	9.4	29.4 J
Iron (ug/l)	1790	214000
Lead (ug/l)	3.2	212
Manganese (ug/l)	383	3950
Phosphorus (ug/l)	50	1080 D
Zinc (ug/l)	122	418

L-35-SD-003		
Depth (ft)		0 - 1
Compound	LOC	Conc
Cadmium (mg/kg)	1.70	2.02
Copper (mg/kg)	28	37.7
Lead (mg/kg)	38.8	151
Manganese (mg/kg)	1673	1820
Zinc (mg/kg)	171	391

L-35-SS-060		
Depth (ft)		0 - 1
Compound	LOC	Conc
Aroclor 1254 (mg/kg)	1	7.7 D
Lead (mg/kg)	800	6440 D

L-35-SS-061		
Depth (ft)		0 - 1
Compound	LOC	Conc
Aroclor 1254 (mg/kg)	1	5.1 D
Lead (mg/kg)	800	5270 D

L-35-SD-005		
Depth (ft)		0 - 1
Compound	LOC	Conc
Lead (mg/kg)	38.8	1560

L-35-SS-009		
Depth (ft)		0 - 1
Compound	LOC	Conc
Aroclor 1254 (mg/kg)	1	143 D
Lead (mg/kg)	800	8820

L-35-SS-056		
Depth (ft)		0 - 1
Compound	LOC	Conc
Aroclor 1254 (mg/kg)	1	1.9 JD

L-35-SB-005			
Depth (ft)		0 - 1	2 - 3
Compound	LOC	Conc	Conc
Lead (mg/kg)	800	5270 D	4710 D

L-35-SS-007			
Depth (ft)		0 - 1	0 - 1 (dup)
Compound	LOC	Conc	Conc
Lead (mg/kg)	800	1670	2370

L-35-SD-004		
Depth (ft)		0 - 1
Compound	LOC	Conc
Lead (mg/kg)	38.8	59.1

L-35-SS-044			
Depth (ft)		0 - 1	2 - 3
Compound	LOC	Conc	Conc
Aroclor 1254 (mg/kg)	1	1.18	NA
Lead (mg/kg)	800	19500	NE

L-35-MW-002		
Date		3/17/1999
Compound	LOC	Conc
Aluminum (ug/l)	200	21600
Arsenic (ug/l)	3	7.79 J
Iron (ug/l)	300	23600
Lead (ug/l)	5	27
Manganese (ug/l)	50	180

LEGEND

- SURFACE SOIL
- SURFACE WATER AND/OR SEDIMENT
- SOIL BORING
- MONITORING WELL
- HYDROPUNCH
- ROADS
- WATER BODIES
- BUILDING
- FORMER BUILDING
- APPROXIMATE SITE LOCATION
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

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0 40
SCALE IN FEET

PLOT SIZE: 22x34

REV. ISSUED DATE DESCRIPTION

KEYPLAN

SEAL

ARCADIS
1114 Benfield Blvd.
Suite A
Millersville, MD 21108
Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

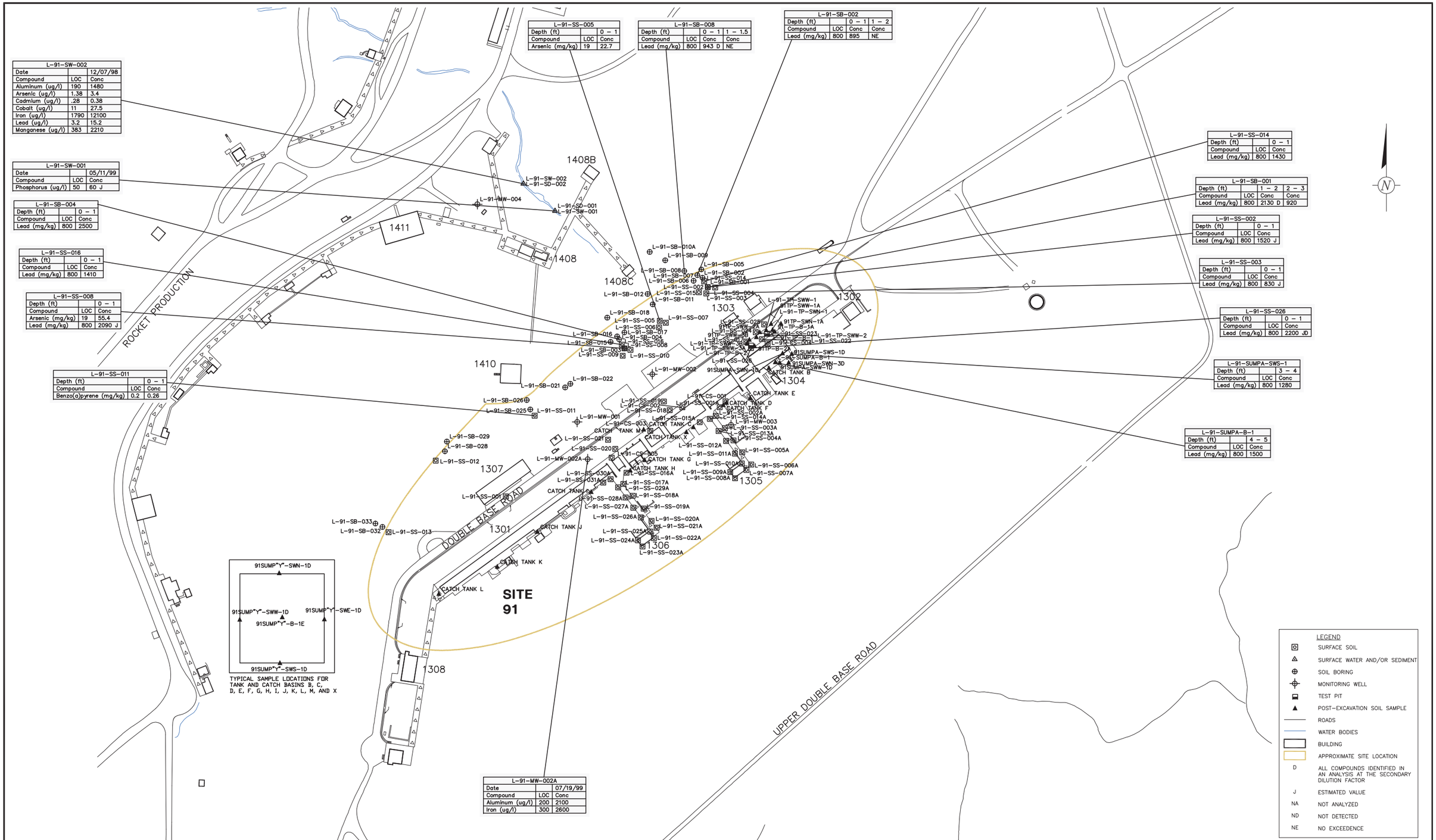
PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 35/PICA 021 NITROGLYCERINE PROCESSING AREA

TASK/PHASE NUMBER	DRAWN BY
EA001	A. FOX

PROJECT NUMBER	FIGURE
GP06PICA.P001	22-18



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Suite A
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Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

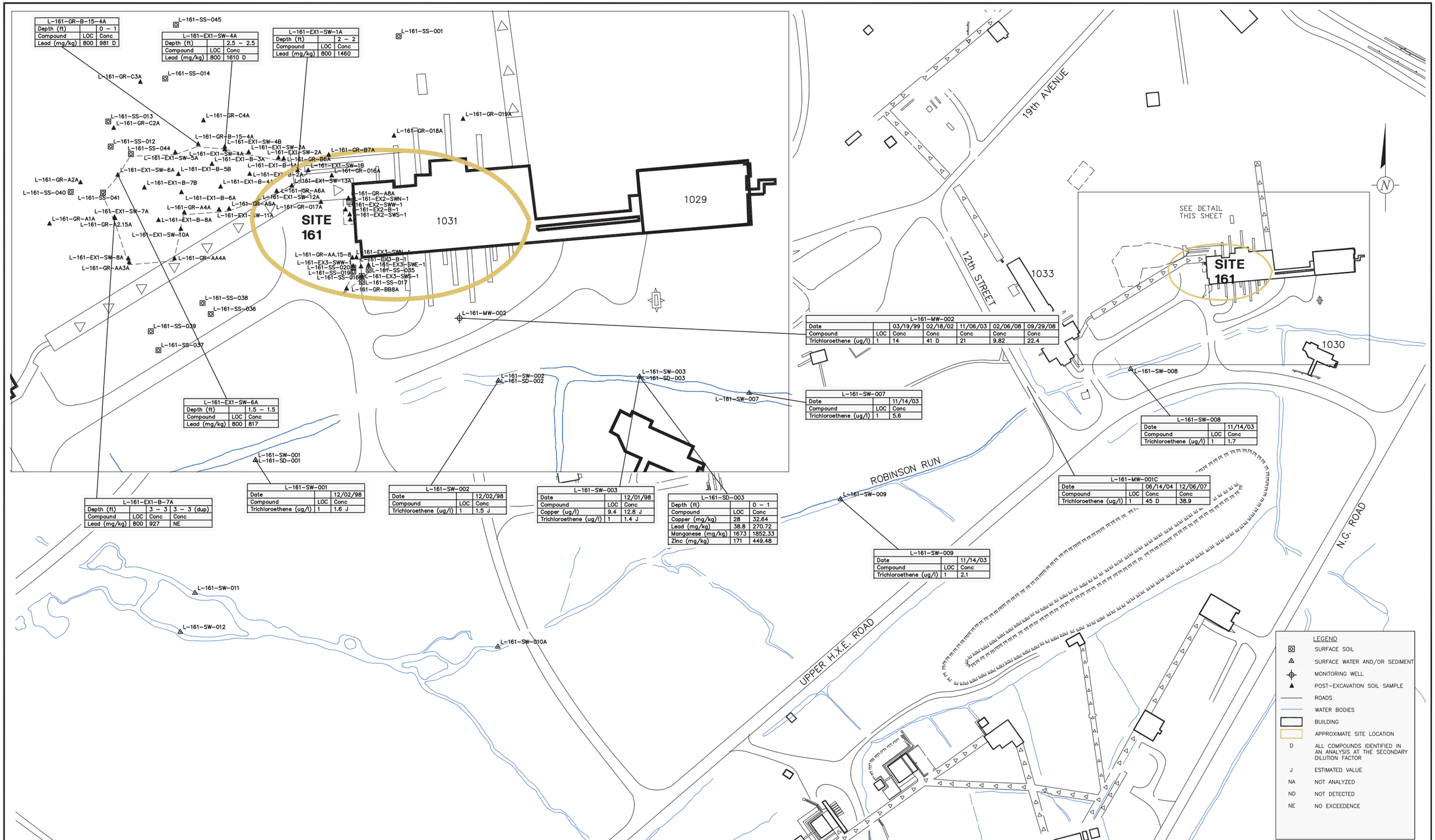
PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 91/PICA 163 ROCKET MOTOR ASSEMBLY PLANT

TASK/PHASE NUMBER	DRAWN BY
EA001	A. FOX

PROJECT NUMBER	FIGURE
GP06PICA.P001	22-19



L-161-GR-B-15-4A		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	981 D

L-161-EX1-SW-4A		
Depth (ft)		2.5 – 2.5
Compound	LOC	Conc
Lead (mg/kg)	800	1610 D

L-161-EX1-SW-1A		
Depth (ft)		2 – 2
Compound	LOC	Conc
Lead (mg/kg)	800	1460

L-161-EX1-SW-6A		
Depth (ft)		1.5 – 1.5
Compound	LOC	Conc
Lead (mg/kg)	800	817

L-161-EX1-B-7A			
Depth (ft)		3 – 3	3 – 3 (dup)
Compound	LOC	Conc	Conc
Lead (mg/kg)	800	927	NE

L-161-MW-002						
Date		03/19/99	02/18/02	11/06/03	02/06/08	09/29/08
Compound	LOC	Conc	Conc	Conc	Conc	Conc
Trichloroethene (ug/l)	1	14	41 D	21	9.82	22.4

L-161-SW-007		
Date		11/14/03
Compound	LOC	Conc
Trichloroethene (ug/l)	1	5.6

L-161-SW-008		
Date		11/14/03
Compound	LOC	Conc
Trichloroethene (ug/l)	1	1.7

L-161-MW-001C			
Date		06/14/04	12/06/07
Compound	LOC	Conc	Conc
Trichloroethene (ug/l)	1	45 D	38.9

L-161-SW-001		
Date		12/02/98
Compound	LOC	Conc
Trichloroethene (ug/l)	1	1.6 J

L-161-SW-002		
Date		12/02/98
Compound	LOC	Conc
Trichloroethene (ug/l)	1	1.5 J

L-161-SW-003		
Date		12/01/98
Compound	LOC	Conc
Copper (ug/l)	9.4	12.8 J
Trichloroethene (ug/l)	1	1.4 J

L-161-SD-003		
Depth (ft)		0 – 1
Compound	LOC	Conc
Copper (mg/kg)	28	32.64
Lead (mg/kg)	38.8	270.72
Manganese (mg/kg)	1673	1852.33
Zinc (mg/kg)	171	449.48

L-161-SW-009		
Date		11/14/03
Compound	LOC	Conc
Trichloroethene (ug/l)	1	2.1

Date\Time : Wed, 28 Jul 2010 – 2:29pm
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0 80
SCALE IN FEET

PLOT SIZE: 22x34

REV. ISSUED DATE DESCRIPTION

KEYPLAN

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Suite A
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Tel: 410-987-4392 Fax: 410-987-0032
www.arcadis-us.com

PROJECT TITLE
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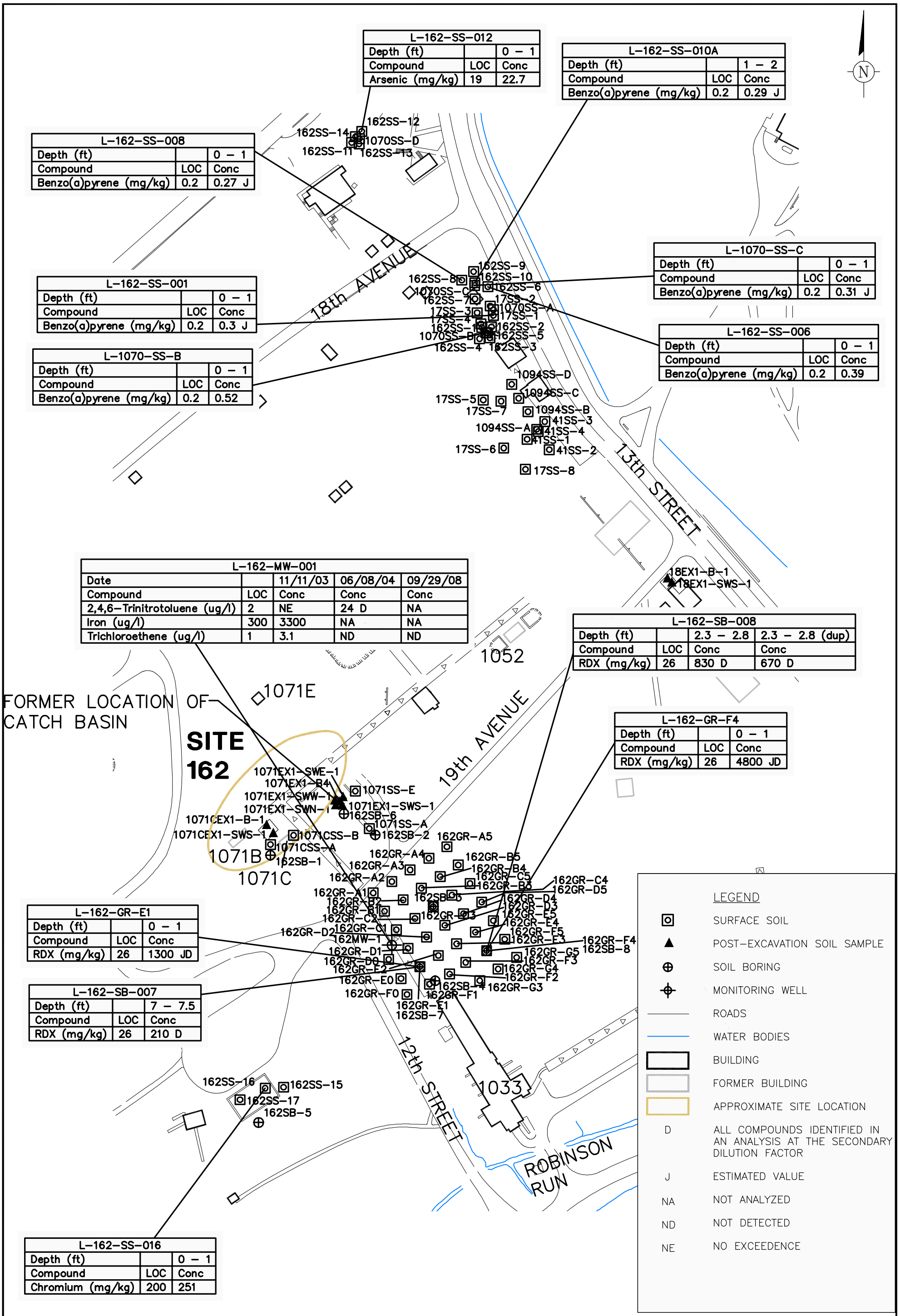
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA EXCEEDING
LOCs AT RI SITE 161/PICA 172
NITRATION BUILDING

TASK/PHASE NUMBER	DRAWN BY
EA001	A. FOX

PROJECT NUMBER	FIGURE
GP06PICA.P001	22-20



L-162-SS-012		
Depth (ft)		0 - 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	22.7

L-162-SS-010A		
Depth (ft)		1 - 2
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.29 J

L-162-SS-008		
Depth (ft)		0 - 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.27 J

L-1070-SS-C		
Depth (ft)		0 - 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.31 J

L-162-SS-001		
Depth (ft)		0 - 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.3 J

L-162-SS-006		
Depth (ft)		0 - 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.39

L-1070-SS-B		
Depth (ft)		0 - 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.52

L-162-MW-001				
Date		11/11/03	06/08/04	09/29/08
Compound	LOC	Conc	Conc	Conc
2,4,6-Trinitrotoluene (ug/l)	2	NE	24 D	NA
Iron (ug/l)	300	3300	NA	NA
Trichloroethene (ug/l)	1	3.1	ND	ND

L-162-SB-008			
Depth (ft)		2.3 - 2.8	2.3 - 2.8 (dup)
Compound	LOC	Conc	Conc
RDX (mg/kg)	26	830 D	670 D

L-162-GR-F4		
Depth (ft)		0 - 1
Compound	LOC	Conc
RDX (mg/kg)	26	4800 JD

L-162-GR-E1		
Depth (ft)		0 - 1
Compound	LOC	Conc
RDX (mg/kg)	26	1300 JD

L-162-SB-007		
Depth (ft)		7 - 7.5
Compound	LOC	Conc
RDX (mg/kg)	26	210 D

L-162-SS-016		
Depth (ft)		0 - 1
Compound	LOC	Conc
Chromium (mg/kg)	200	251

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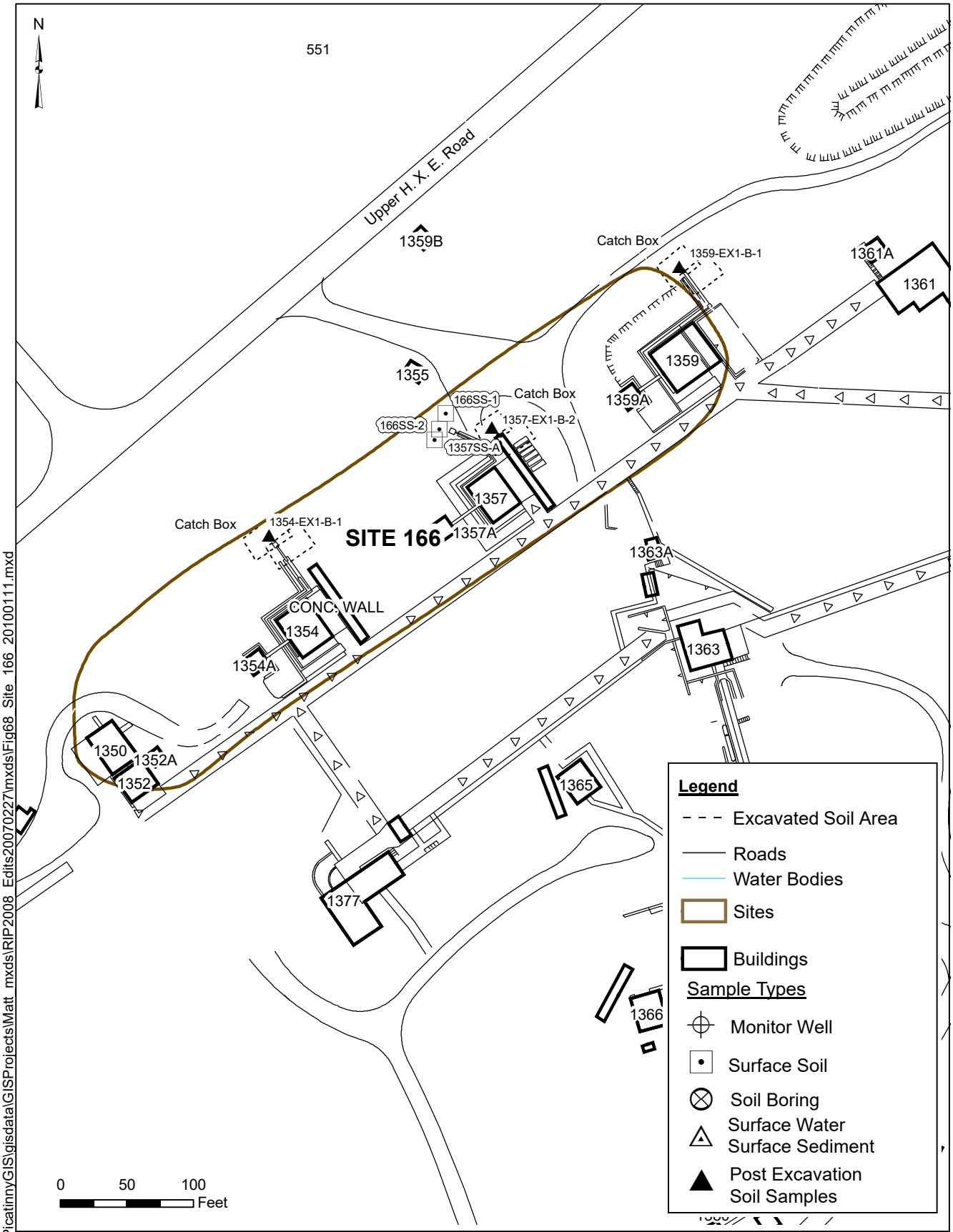
PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 162/PICA 173 BUILDINGS 1070, 1071, & 1071C

TASK/PHASE NUMBER: EA001
DRAWN BY: A. SANTINI
PROJECT NUMBER: GP06PICA.P001
FIGURE 22-21



G:\GIS\Projects\PicatinnyGIS\gisdata\GISProjects\Matt mxds\RIP2008 Edits20070227\mxds\Fig68 Site 166 20100111.mxd

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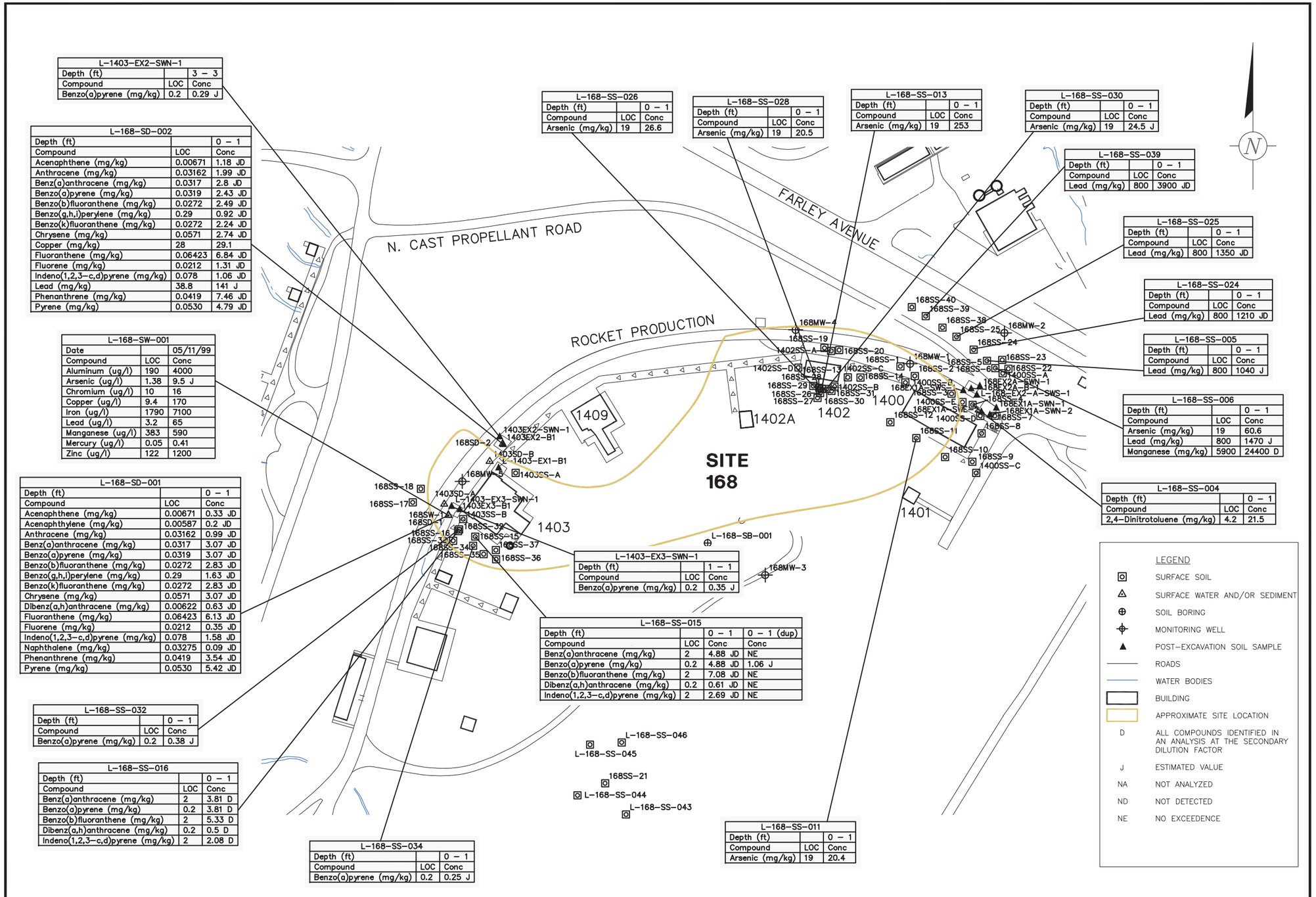
Fax: (732) 225-5067

HISTORICAL DATA EXCEEDING LOCs AT
RI SITE 166 \ PICA 174
STORAGE MAGAZINES
PICATINNY ARSENAL, NEW JERSEY

PROJECT MANAGER T. LLEWELLYN	DEPARTMENT MANAGER M. MOHIUDDIN
DRAWN M.GRESS	CHECKED K. TIPTON
PROJECT NUMBER GP06PICA.P001.NJ001	FIGURE 22-22



L-1403-EX2-SWN-1		
Depth (ft)		3 – 3
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.29 J

L-168-SD-002		
Depth (ft)		0 – 1
Compound	LOC	Conc
Acenaphthene (mg/kg)	0.00671	1.18 JD
Anthracene (mg/kg)	0.03162	1.99 JD
Benz(a)anthracene (mg/kg)	0.0317	2.8 JD
Benzo(a)pyrene (mg/kg)	0.0319	2.43 JD
Benzo(b)fluoranthene (mg/kg)	0.0272	2.49 JD
Benzo(g,h,i)perylene (mg/kg)	0.29	0.92 JD
Benzo(k)fluoranthene (mg/kg)	0.0272	2.24 JD
Chrysene (mg/kg)	0.0571	2.74 JD
Copper (mg/kg)	28	29.1
Fluoranthene (mg/kg)	0.06423	6.84 JD
Fluorene (mg/kg)	0.0212	1.31 JD
Indeno(1,2,3–c,d)pyrene (mg/kg)	0.078	1.06 JD
Lead (mg/kg)	38.8	141 J
Phenanthrene (mg/kg)	0.0419	7.46 JD
Pyrene (mg/kg)	0.0530	4.79 JD

L-168-SW-001		
Date		05/11/99
Compound	LOC	Conc
Aluminum (ug/l)	190	4000
Arsenic (ug/l)	1.38	9.5 J
Chromium (ug/l)	10	16
Copper (ug/l)	9.4	170
Iron (ug/l)	1790	7100
Lead (ug/l)	3.2	65
Manganese (ug/l)	383	590
Mercury (ug/l)	0.05	0.41
Zinc (ug/l)	122	1200

L-168-SD-001		
Depth (ft)		0 – 1
Compound	LOC	Conc
Acenaphthene (mg/kg)	0.00671	0.33 JD
Acenaphthylene (mg/kg)	0.00587	0.2 JD
Anthracene (mg/kg)	0.03162	0.99 JD
Benz(a)anthracene (mg/kg)	0.0317	3.07 JD
Benzo(a)pyrene (mg/kg)	0.0319	3.07 JD
Benzo(b)fluoranthene (mg/kg)	0.0272	2.83 JD
Benzo(g,h,i)perylene (mg/kg)	0.29	1.63 JD
Benzo(k)fluoranthene (mg/kg)	0.0272	2.83 JD
Chrysene (mg/kg)	0.0571	3.07 JD
Dibenz(a,h)anthracene (mg/kg)	0.00622	0.63 JD
Fluoranthene (mg/kg)	0.06423	6.13 JD
Fluorene (mg/kg)	0.0212	0.35 JD
Indeno(1,2,3–c,d)pyrene (mg/kg)	0.078	1.58 JD
Naphthalene (mg/kg)	0.03275	0.09 JD
Phenanthrene (mg/kg)	0.0419	3.54 JD
Pyrene (mg/kg)	0.0530	5.42 JD

L-168-SS-032		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.38 J

L-168-SS-016		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benz(a)anthracene (mg/kg)	2	3.81 D
Benzo(a)pyrene (mg/kg)	0.2	3.81 D
Benzo(b)fluoranthene (mg/kg)	2	5.33 D
Dibenz(a,h)anthracene (mg/kg)	0.2	0.5 D
Indeno(1,2,3–c,d)pyrene (mg/kg)	2	2.08 D

L-168-SS-034		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.25 J

L-168-SS-026		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	26.6

L-168-SS-028		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	20.5

L-168-SS-013		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	253

L-168-SS-030		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	24.5 J

L-168-SS-039		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	3900 JD

L-168-SS-025		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	1350 JD

L-168-SS-024		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	1210 JD

L-168-SS-005		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	1040 J

L-168-SS-006		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	60.6
Lead (mg/kg)	800	1470 J
Manganese (mg/kg)	5900	24400 D

L-168-SS-004		
Depth (ft)		0 – 1
Compound	LOC	Conc
2,4–Dinitrotoluene (mg/kg)	4.2	21.5

L-1403-EX3-SWN-1		
Depth (ft)		1 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.35 J

L-168-SS-015			
Depth (ft)		0 – 1	0 – 1 (dup)
Compound	LOC	Conc	Conc
Benz(a)anthracene (mg/kg)	2	4.88 JD	NE
Benzo(a)pyrene (mg/kg)	0.2	4.88 JD	1.06 J
Benzo(b)fluoranthene (mg/kg)	2	7.08 JD	NE
Dibenz(a,h)anthracene (mg/kg)	0.2	0.61 JD	NE
Indeno(1,2,3–c,d)pyrene (mg/kg)	2	2.69 JD	NE

L-168-SS-011		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	19	20.4

LEGEND

- SURFACE SOIL
- SURFACE WATER AND/OR SEDIMENT
- SOIL BORING
- MONITORING WELL
- POST–EXCAVATION SOIL SAMPLE
- ROADS
- WATER BODIES
- BUILDING
- APPROXIMATE SITE LOCATION
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

Date\time : Fri, 30 Jul 2010 – 1:13pm
Path\Name : G:\ENVCAD\BRIGHTON\ACT\PICATINNY\Pica 001\site 168\dwg\SITE-168.dwg – Layout Tab : LAYOUT1

Acad Version : R18.0s (LMS Tech)
User Name : AFOX

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PLOT SIZE: 17x22

REV. ISSUED DATE DESCRIPTION

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Tel: 410–987–4392 Fax: 410–987–0032
www.arcadis-us.com

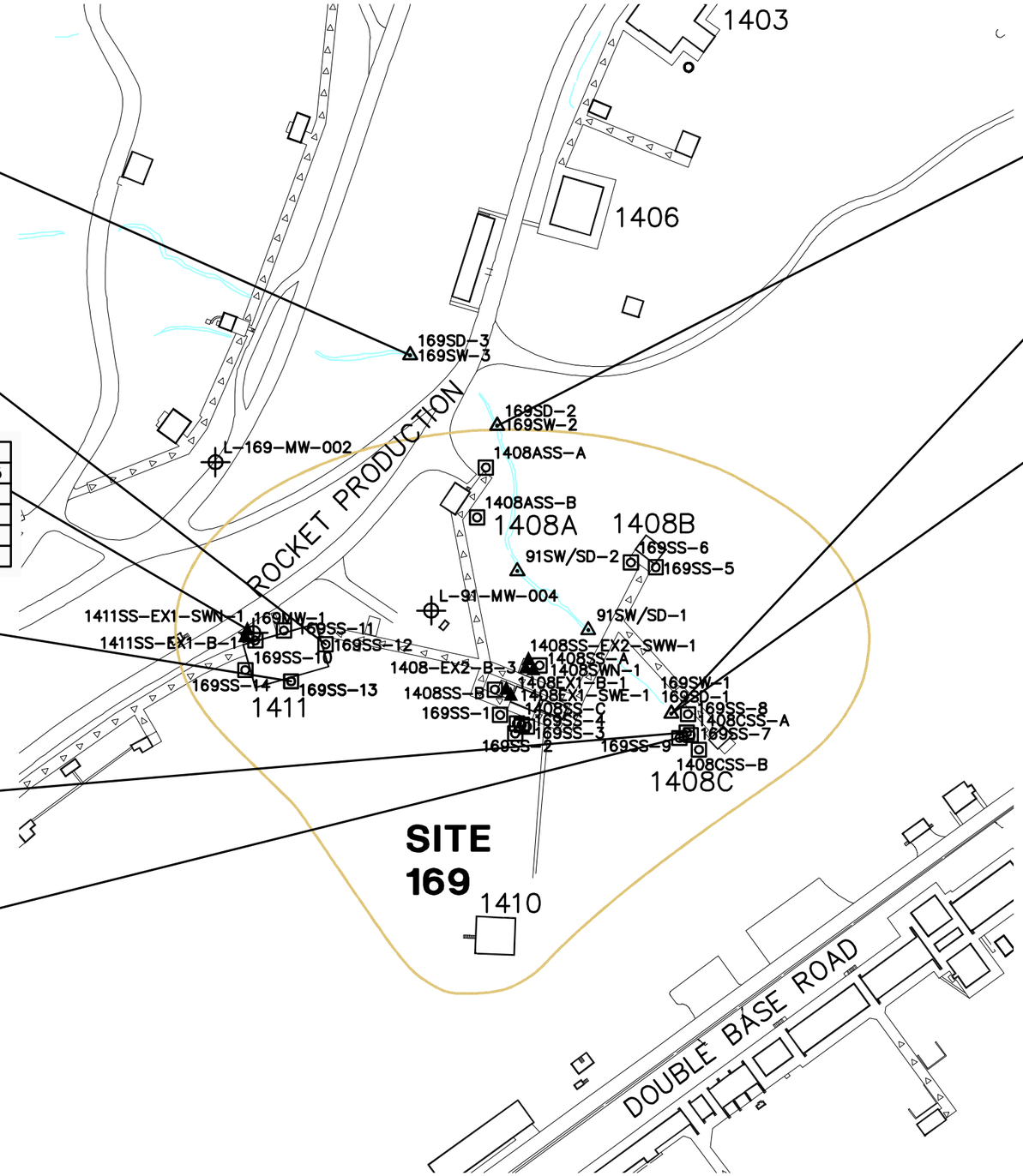
PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED BY
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	T. LLEWELLYN

SHEET TITLE
HISTORICAL DATA
EXCEEDING LOCs AT
RI SITE 168/PICA 168
BUILDINGS 1400 AND 1403

TASK/PHASE NUMBER	DRAWN BY
EA001	A. FOX

PROJECT NUMBER	FIGURE
GP06PICA.P001	22-23



L-169-SD-003		
Depth (ft)		0 – 1
Compound	LOC	Conc
Cadmium (mg/kg)	1.70	2.8 J
Copper (mg/kg)	28	31 J
Lead (mg/kg)	38.8	65.4 J
Manganese (mg/kg)	1673	5110 J
Mercury (mg/kg)	0.249	0.69 J
Zinc (mg/kg)	171	269 J

L-169-SS-012		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.27 JD

L-169-MW-001			
Date		1/4/2001	2/10/2005
Compound	LOC	Conc	Conc
Aluminum (ug/l)	200	1900	NA
Iron (ug/l)	300	2400	NA
RDX (ug/l)	2	NE	2.7

L-169-SS-013		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	0.25 JD

L-1408C-SS-A		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	2450

L-169-SS-007		
Depth (ft)		1 – 2
Compound	LOC	Conc
Lead (mg/kg)	800	904

L-169-SW-002		
Date		10/11/2000
Compound	LOC	Conc
Aluminum (ug/l)	190	1800
Cadmium (ug/l)	0.28	0.36 J
Iron (ug/l)	1790	2900
Lead (ug/l)	3.2	8.1
Zinc (ug/l)	122	160

L-169-SD-001		
Depth (ft)		0 – 1
Compound	LOC	Conc
Arsenic (mg/kg)	16.0	27 D
Chromium (mg/kg)	37.3	46.4 D
Copper (mg/kg)	28	387 J
Nickel (mg/kg)	39.6	149

L-169-SW-001		
Date		10/11/2000
Compound	LOC	Conc
Iron (ug/l)	1790	1800
Lead (ug/l)	3.2	10

LEGEND

- SURFACE SOIL
- SURFACE WATER AND/OR SEDIMENT
- MONITORING WELL
- POST–EXCAVATION SOIL SAMPLE
- ROADS
- WATER BODIES
- BUILDING
- APPROXIMATE SITE LOCATION
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

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SCALE IN FEET
PLOT SCALE 11x17

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PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER	DEPARTMENT MANAGER	LEAD DESIGN PROF.	CHECKED
T. LLEWELLYN	M. MOHIUDDIN	K. PANHORST	K. TIPTON

SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 169/PICA 169 PROPELLANT PLANTS

TASK/PHASE NUMBER: EA001
DRAWN BY: A. FOX
PROJECT NUMBER: GP06PICA.P001
FIGURE: 22-24

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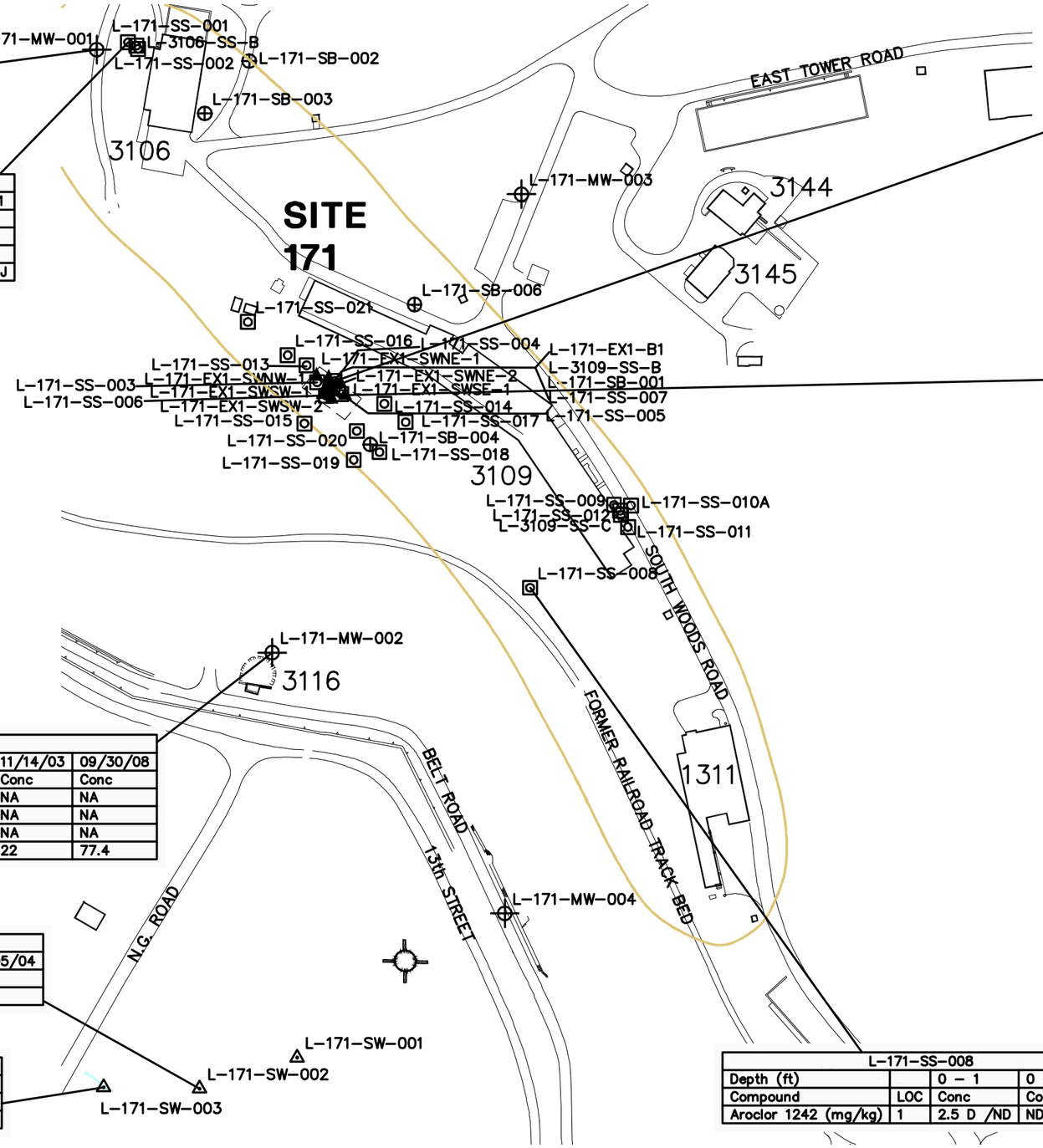
User Name : AFOX



L-171-MW-001		
Date		01/04/01
Compound	LOC	Conc
Aluminum (ug/l)	200	210
Iron (ug/l)	300	420

L-171-SS-001		
Depth (ft)		0 – 1
Compound	LOC	Conc
Benzo(a)pyrene (mg/kg)	0.2	1.7
Benzo(b)fluoranthene (mg/kg)	2	2.4
Dibenz(a,h)anthracene (mg/kg)	0.2	0.24 J

L-171-SS-004		
Depth (ft)		0 – 1
Compound	LOC	Conc
Lead (mg/kg)	800	2470 D

L-171-SS-006		
Depth (ft)		0 – 1
Compound	LOC	Conc
Cadmium (mg/kg)	78	162 D
Lead (mg/kg)	800	3950 D
Zinc (mg/kg)	110000	134000 D

L-171-MW-002				
Date		01/04/01	11/14/03	09/30/08
Compound	LOC	Conc	Conc	Conc
Aluminum (ug/l)	200	370	NA	NA
Iron (ug/l)	300	730	NA	NA
Manganese (ug/l)	50	59	NA	NA
Trichloroethene (ug/l)	1	12	22	77.4

L-171-SW-002		
Date		05/05/04
Compound	LOC	Conc
Trichloroethene (ug/l)	1	1.7

L-171-SW-003		
Date		05/05/04
Compound	LOC	Conc
Trichloroethene (ug/l)	1	6

L-171-SS-008			
Depth (ft)		0 – 1	0 – 1 (dup)
Compound	LOC	Conc	Conc
Aroclor 1242 (mg/kg)	1	2.5 D /ND	ND

LEGEND

- SURFACE SOIL
- SURFACE WATER AND/OR SEDIMENT
- SOIL BORING
- MONITORING WELL
- POST–EXCAVATION SOIL SAMPLE
- ROADS
- WATER BODIES
- BUILDING
- APPROXIMATE SITE LOCATION
- REMOVAL AREA OF LEAD–CONTAMINATED SOIL
- D — ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT THE SECONDARY DILUTION FACTOR
- J — ESTIMATED VALUE
- NA — NOT ANALYZED
- ND — NOT DETECTED
- NE — NO EXCEEDENCE

0 150
SCALE IN FEET

PLOT SCALE 11x17

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PROJECT TITLE
PICATINNY ARSENAL
NEW JERSEY

PROJECT MANAGER: T. LLEWELLYN
DEPARTMENT MANAGER: M. MOHIUDDIN
LEAD DESIGN PROF.: K. PANHORST
CHECKED: K. TIPTON

SHEET TITLE
HISTORICAL DATA EXCEEDING LOCs AT RI SITE 171/PICA 171 ORDNANCE FACILITIES

TASK/PHASE NUMBER: EA001
DRAWN BY: A. FOX
PROJECT NUMBER: GP06PICA.P001
FIGURE 22-25

Path\Name : G:\ENVCAD\BRIGHTON\ACT\PICATINNY\Pica 001\SITE 171\DWG\SITE-171.dwg – Layout Tab : DWG #
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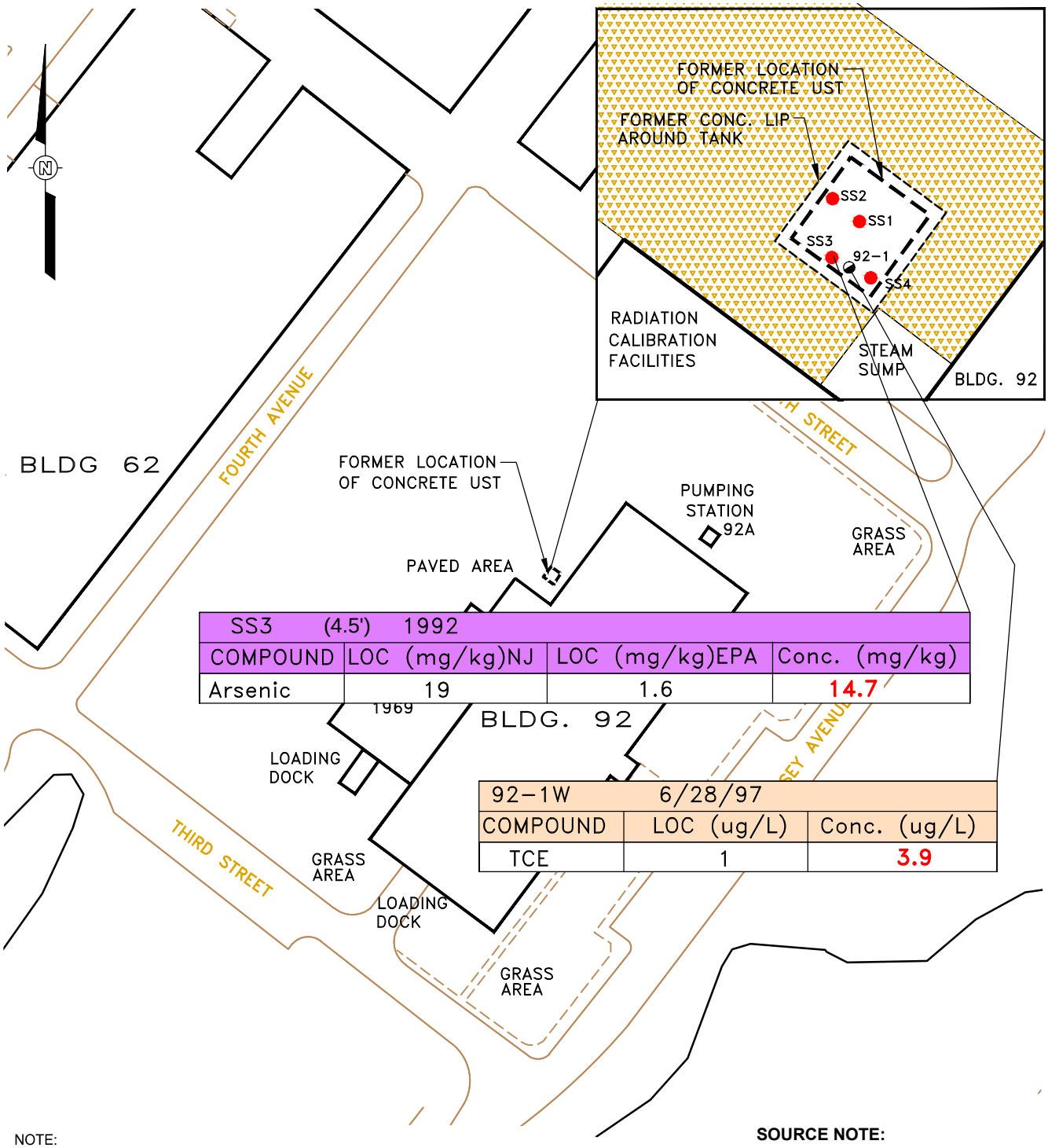

SS3 (4.5') 1992			
COMPOUND	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	14.7

92-1W 6/28/97		
COMPOUND	LOC (ug/L)	Conc. (ug/L)
TCE	1	3.9

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010 (DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-6, DATED 4/07/10)

LEGEND

- RAILROAD
- TREE LINE
- FENCE
- TRANSFORMER (TR-752)
- BLAST WALL
- STORM SEWER (STS)
- SANITARY SEWER (SS)
- EARTH MOUND
- BUILDING
- FORMER CONCRETE UST
- COVERED WALKWAY
- SWAMP
- WATER
- 10' SURFACE CONTOUR
- PAVED ROADWAY
- UNPAVED ROADWAY
- PREVIOUS SUB-SURFACE SOIL SAMPLING LOCATION
- GEOPROBE SUBSURFACE SOIL & GROUNDWATER SAMPLE
- PAVED AREA

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY

NO FURTHER ACTION WITH MONITORING OF LAND USE ROD FOR 21 SITES

SITE 69-BLDG. 92
LOC EXCEEDENCES

ARCADIS

FIGURE
23-1

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF* PAGESETUP: SYR-PA-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/21/2013 4:09 PM BY: SARTORI, KATHERINE
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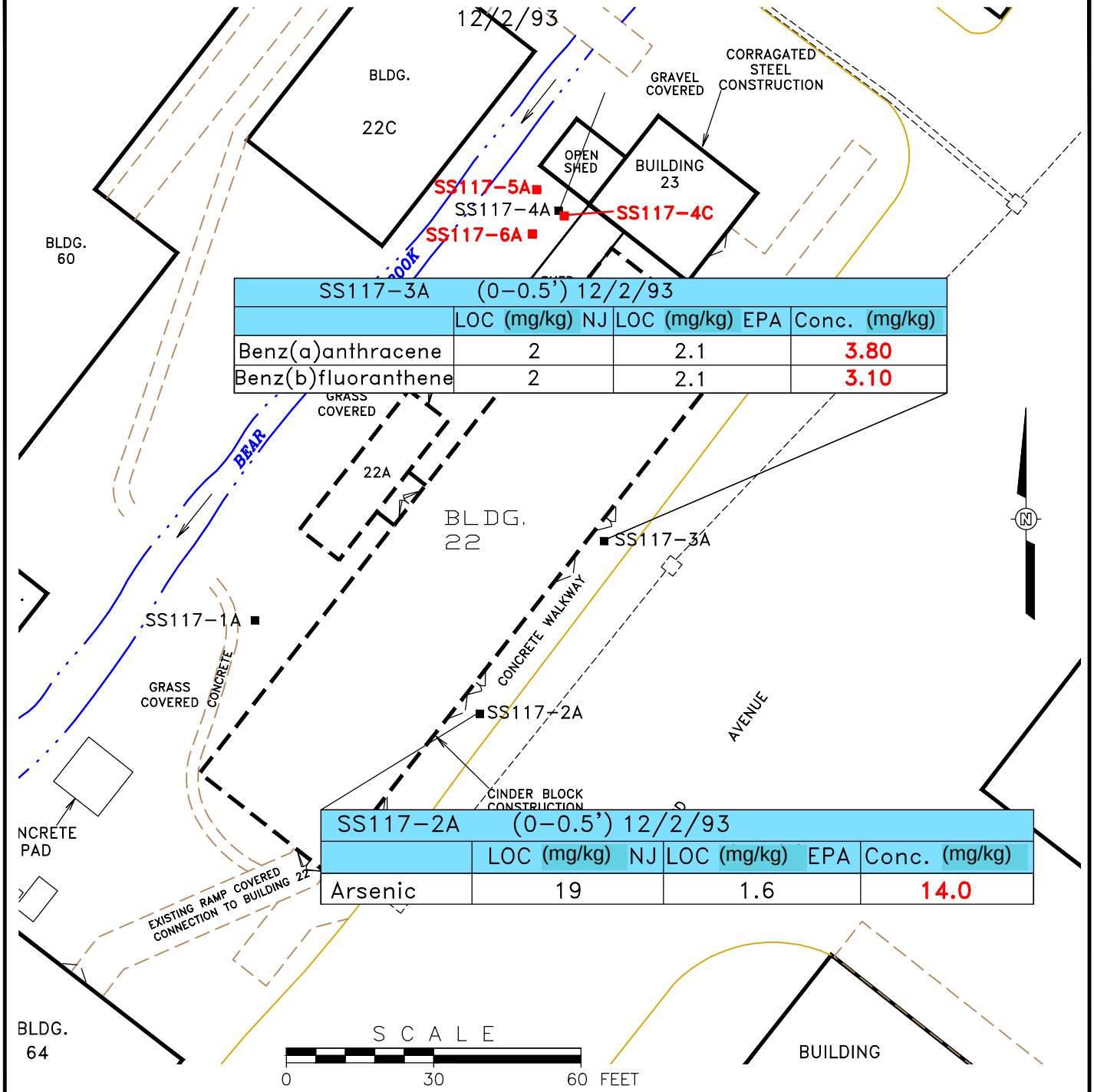
GP06PICA-PA



SS117-3A (0-0.5') 12/2/93			
	LOC (mg/kg) NJ	LOC (mg/kg) EPA	Conc. (mg/kg)
Benz(a)anthracene	2	2.1	3.80
Benz(b)fluoranthene	2	2.1	3.10

SS117-2A (0-0.5') 12/2/93			
	LOC (mg/kg) NJ	LOC (mg/kg) EPA	Conc. (mg/kg)
Arsenic	19	1.6	14.0

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

LEGEND

- RAILROAD
- TREE LINE FENCE
- TRANSFORMER (TR-732)
- BLAST WALL
- STORM SEWER (STS)
- SANITARY SEWER (SS)
- EARTH MOUND
- BUILDING
- FORMER BUILDING
- COVERED WALKWAY
- SWAMP WATER
- 10' SURFACE CONTOUR
- PAVED ROADWAY
- UNPAVED ROADWAY
- EXISTING SOIL SAMPLE

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-7, DATED 4/10/10)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE ROD FOR 21 SITES

SITE 117
LOC EXCEEDENCES

ARCADIS

FIGURE
23-2

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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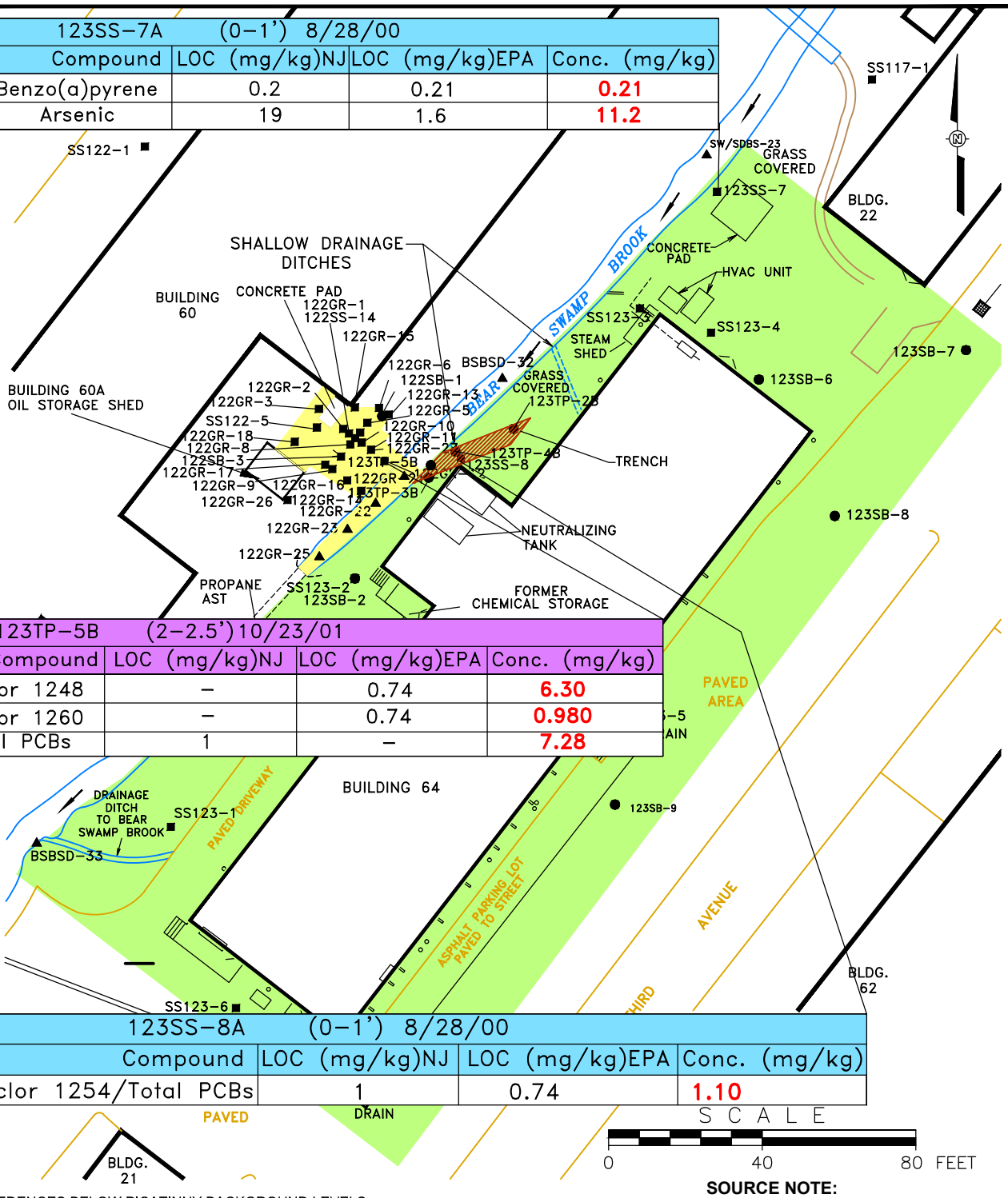
XREFS: IMAGES: PROJECTNAME: ---
GP06PICA-PA

123SS-7A (0-1') 8/28/00			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Benzo(a)pyrene	0.2	0.21	0.21
Arsenic	19	1.6	11.2

123TP-5B (2-2.5') 10/23/01			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Aroclor 1248	–	0.74	6.30
Aroclor 1260	–	0.74	0.980
Total PCBs	1	–	7.28

123SS-8A (0-1') 8/28/00			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Aroclor 1254/Total PCBs	1	0.74	1.10



SCALE

0 40 80 FEET

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

RAILROAD
TREE LINE
FENCE
TRANSFORMER TR-732
BLAST WALL
STORM SEWER
SANITARY SEWER
EARTH MOUND
BUILDING
FORMER BUILDING
COVERED WALKWAY
SWAMP
WATER

SAMPLING LOCATIONS
- MONITORING WELL
- SURFACE WATER/SEDIMENT
- SURFACE SOIL
- SOIL BORING
- TEST PIT
- HYDROPUNCH

SITE 122 PCB REMOVAL AREA

SITE 123 SOIL GAS SURVEY AREA

SURFACE WATER FLOW

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 8-6, DATED 4/08/10)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE ROD FOR 21 SITES

SITE 123
BUILDING 64 - METAL PLATING SHOP LOC EXCEEDENCES

ARCADIS

FIGURE
23-3

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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XREFS: GP06PICA-PA IMAGES: PROJECTNAME: ---

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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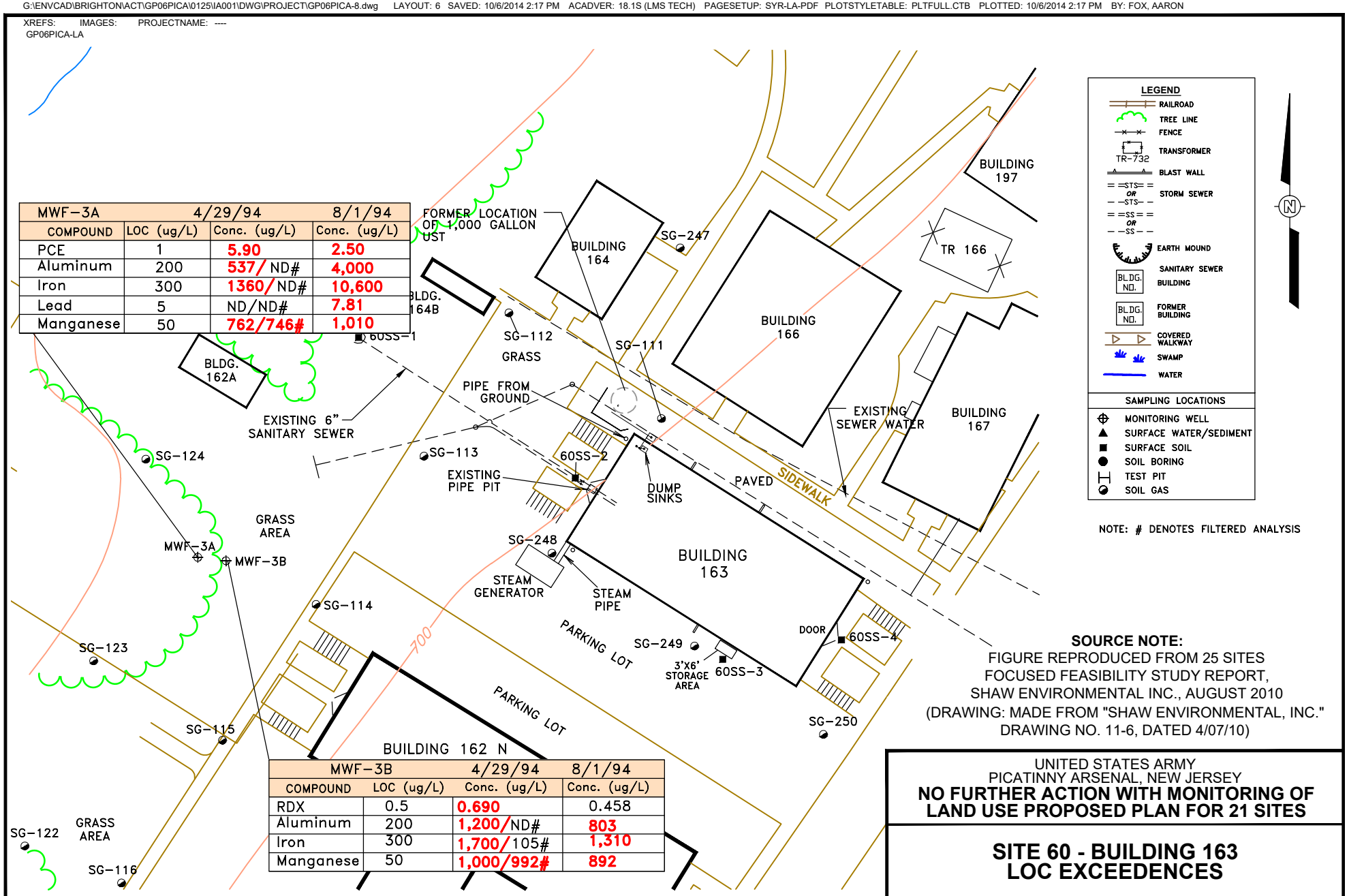
XREFS: IMAGES: PROJECTNAME: ----
GP06PICA-LA



MWF-3A	4/29/94		8/1/94
COMPOUND	LOC (ug/L)	Conc. (ug/L)	Conc. (ug/L)
PCE	1	5.90	2.50
Aluminum	200	537/ ND#	4,000
Iron	300	1360/ ND#	10,600
Lead	5	ND/ND#	7.81
Manganese	50	762/746#	1,010

MWF-3B	4/29/94		8/1/94
COMPOUND	LOC (ug/L)	Conc. (ug/L)	Conc. (ug/L)
RDX	0.5	0.690	0.458
Aluminum	200	1,200/ND#	803
Iron	300	1,700/105#	1,310
Manganese	50	1,000/992#	892

NOTE: # DENOTES FILTERED ANALYSIS

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 11-6, DATED 4/07/10)

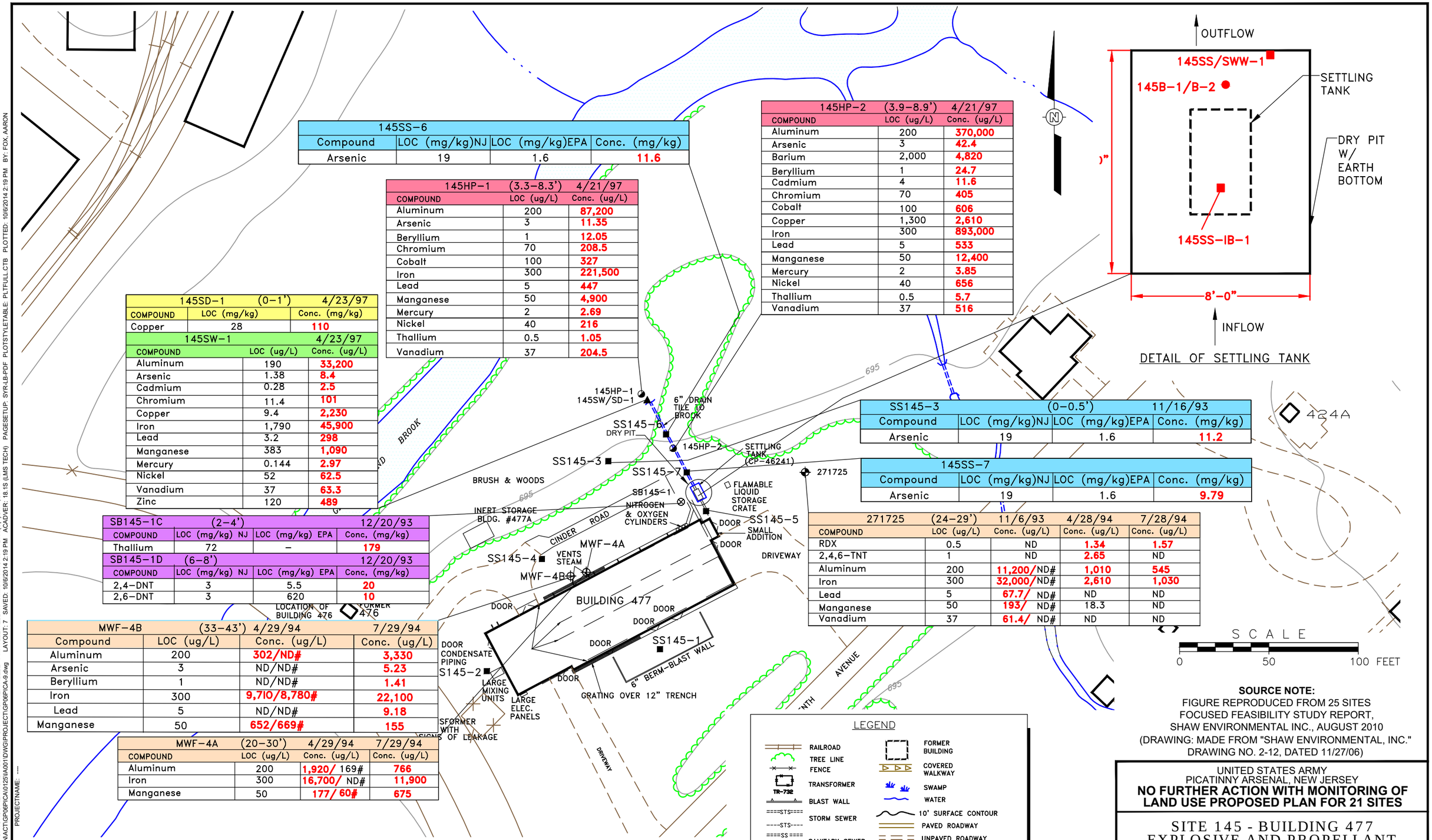
NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 60 - BUILDING 163 LOC EXCEEDENCES

ARCADIS

FIGURE
23-4



145SS-6			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	11.6

145HP-1 (3.3-8.3') 4/21/97		
COMPOUND	LOC (ug/L)	Conc. (ug/L)
Aluminum	200	87,200
Arsenic	3	11.35
Beryllium	1	12.05
Chromium	70	208.5
Cobalt	100	327
Iron	300	221,500
Lead	5	447
Manganese	50	4,900
Mercury	2	2.69
Nickel	40	216
Thallium	0.5	1.05
Vanadium	37	204.5

145HP-2 (3.9-8.9') 4/21/97		
COMPOUND	LOC (ug/L)	Conc. (ug/L)
Aluminum	200	370,000
Arsenic	3	42.4
Barium	2,000	4,820
Beryllium	1	24.7
Cadmium	4	11.6
Chromium	70	405
Cobalt	100	606
Copper	1,300	2,610
Iron	300	893,000
Lead	5	533
Manganese	50	12,400
Mercury	2	3.85
Nickel	40	656
Thallium	0.5	5.7
Vanadium	37	516

145SD-1 (0-1') 4/23/97		
COMPOUND	LOC (mg/kg)	Conc. (mg/kg)
Copper	28	110

145SW-1 4/23/97		
COMPOUND	LOC (ug/L)	Conc. (ug/L)
Aluminum	190	33,200
Arsenic	1.38	8.4
Cadmium	0.28	2.5
Chromium	11.4	101
Copper	9.4	2,230
Iron	1,790	45,900
Lead	3.2	298
Manganese	383	1,090
Mercury	0.144	2.97
Nickel	52	62.5
Vanadium	37	63.3
Zinc	120	489

SB145-1C (2-4') 12/20/93			
COMPOUND	LOC (mg/kg) NJ	LOC (mg/kg) EPA	Conc, (mg/kg)
Thallium	72	–	179

SB145-1D (6-8') 12/20/93			
COMPOUND	LOC (mg/kg) NJ	LOC (mg/kg) EPA	Conc, (mg/kg)
2,4-DNT	3	5.5	20
2,6-DNT	3	620	10

MWF-4B (33-43') 4/29/94 7/29/94			
Compound	LOC (ug/L)	Conc. (ug/L)	Conc. (ug/L)
Aluminum	200	302/ND#	3,330
Arsenic	3	ND/ND#	5.23
Beryllium	1	ND/ND#	1.41
Iron	300	9,710/8,780#	22,100
Lead	5	ND/ND#	9.18
Manganese	50	652/669#	155

MWF-4A (20-30') 4/29/94 7/29/94			
COMPOUND	LOC (ug/L)	Conc. (ug/L)	Conc. (ug/L)
Aluminum	200	1,920/ 169#	766
Iron	300	16,700/ ND#	11,900
Manganese	50	177/ 60#	675

SS145-3 (0-0.5') 11/16/93			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	11.2

145SS-7			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	9.79

271725 (24-29') 11/6/93 4/28/94 7/28/94				
COMPOUND	LOC (ug/L)	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)
RDX	0.5	ND	1.34	1.57
2,4,6-TNT	1	ND	2.65	ND
Aluminum	200	11,200/ND#	1,010	545
Iron	300	32,000/ND#	2,610	1,030
Lead	5	67.7/ ND#	ND	ND
Manganese	50	193/ ND#	18.3	ND
Vanadium	37	61.4/ ND#	ND	ND

# Denotes Analysis of Filtered Sample

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-12, DATED 11/27/06)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 145 - BUILDING 477
EXPLOSIVE AND PROPELLANT
MIXING AREA LOC EXCEEDENCES

ARCADIS

FIGURE
23-5

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC:T.E. TALELE PM:T.LLEWELLYN TM:K.PANHORST LYR:(Opt)ON=*;OFF=*REF* PAGESETUP: SYR-LB-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/6/2014 2:19 PM BY: FOX, AARON
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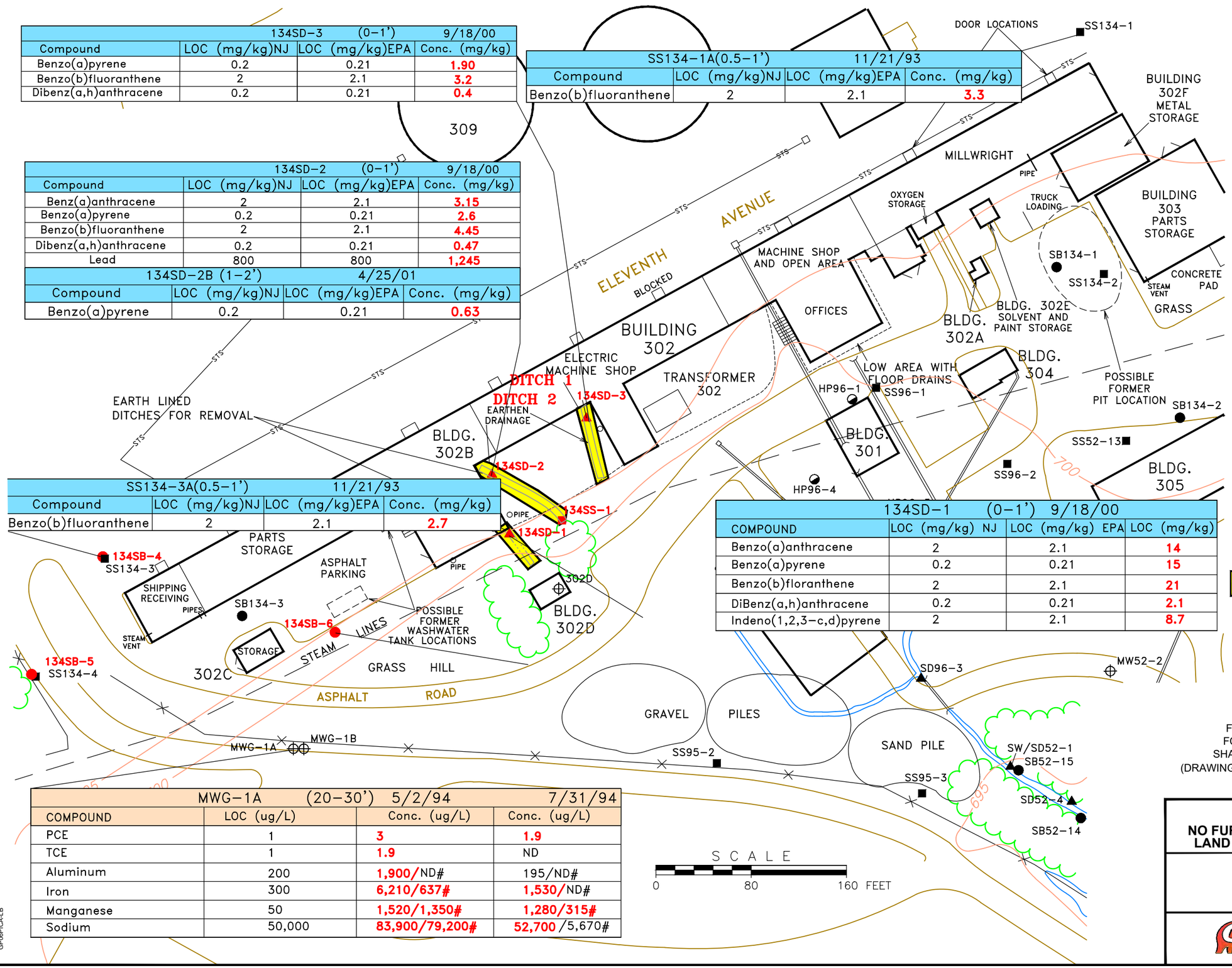
GP06PICA-LB



134SD-3 (0-1') 9/18/00			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Benzo(a)pyrene	0.2	0.21	1.90
Benzo(b)fluoranthene	2	2.1	3.2
Dibenz(a,h)anthracene	0.2	0.21	0.4

SS134-1A(0.5-1') 11/21/93			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Benzo(b)fluoranthene	2	2.1	3.3

134SD-2 (0-1') 9/18/00			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Benz(a)anthracene	2	2.1	3.15
Benzo(a)pyrene	0.2	0.21	2.6
Benzo(b)fluoranthene	2	2.1	4.45
Dibenz(a,h)anthracene	0.2	0.21	0.47
Lead	800	800	1,245

134SD-2B (1-2') 4/25/01			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Benzo(a)pyrene	0.2	0.21	0.63

SS134-3A(0.5-1') 11/21/93			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Benzo(b)fluoranthene	2	2.1	2.7

134SD-1 (0-1') 9/18/00			
COMPOUND	LOC (mg/kg) NJ	LOC (mg/kg) EPA	LOC (mg/kg)
Benzo(a)anthracene	2	2.1	14
Benzo(a)pyrene	0.2	0.21	15
Benzo(b)floranthene	2	2.1	21
DiBenz(a,h)anthracene	0.2	0.21	2.1
Indeno(1,2,3-c,d)pyrene	2	2.1	8.7

MWG-1A (20-30') 5/2/94 7/31/94			
COMPOUND	LOC (ug/L)	Conc. (ug/L)	Conc. (ug/L)
PCE	1	3	1.9
TCE	1	1.9	ND
Aluminum	200	1,900/ND#	195/ND#
Iron	300	6,210/637#	1,530/ND#
Manganese	50	1,520/1,350#	1,280/315#
Sodium	50,000	83,900/79,200#	52,700 /5,670#

NOT DETECTED IN DUPLICATE SAMPLE

 # DENOTES ANALYSIS OF FILTERED SAMPLE

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010 (DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-15, DATED 4/15/10)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY

NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 134 - BUILDING 302 LOC EXCEEDENCES

ARCADIS

FIGURE
23-6

CITY:SYRACUSE,NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC:T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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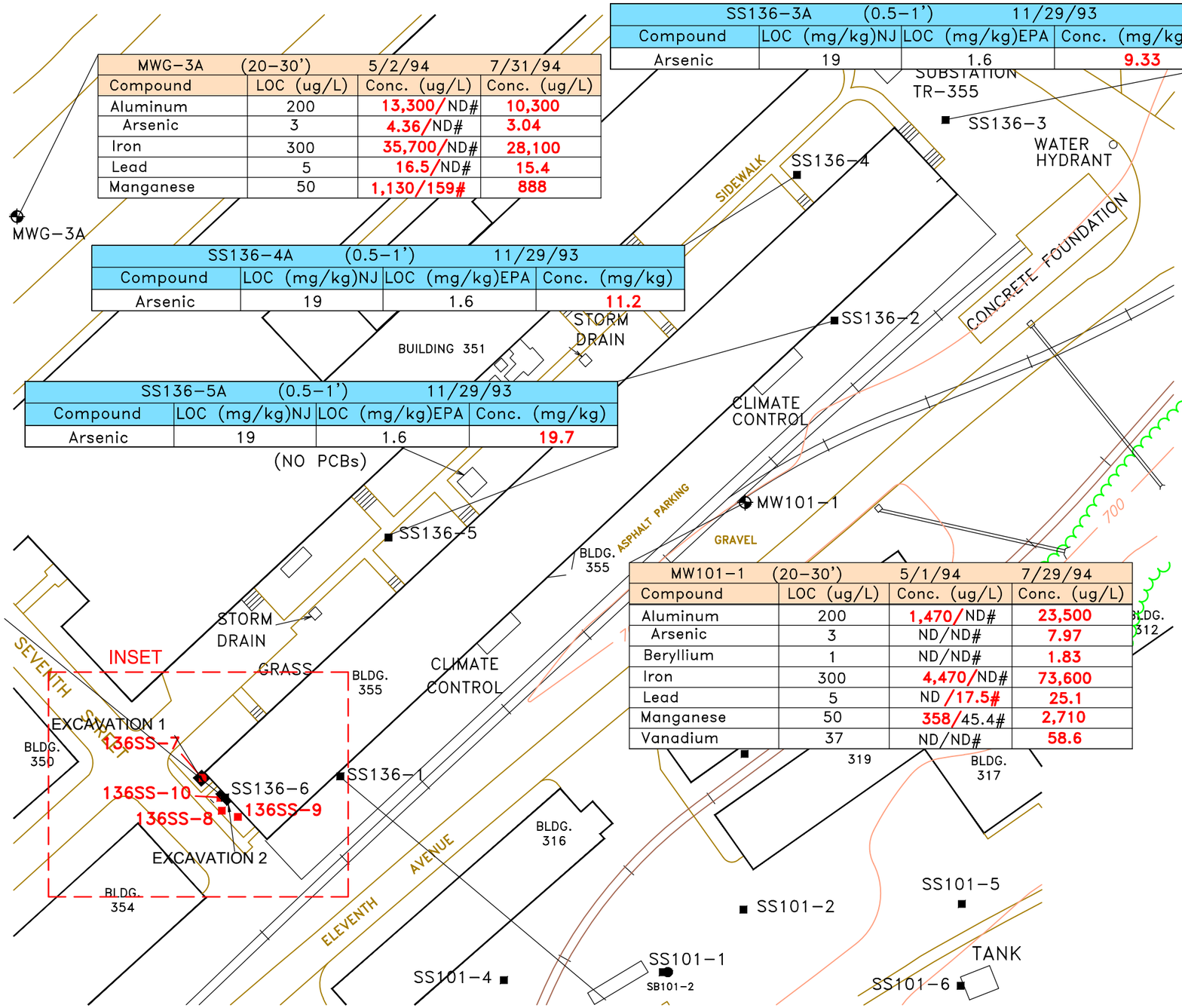
XREFS: IMAGES: PROJECTNAME: ----
GP06PICA-LB



MWG-3A (20-30')		5/2/94	7/31/94
Compound	LOC (ug/L)	Conc. (ug/L)	Conc. (ug/L)
Aluminum	200	13,300/ND#	10,300
Arsenic	3	4.36/ND#	3.04
Iron	300	35,700/ND#	28,100
Lead	5	16.5/ND#	15.4
Manganese	50	1,130/159#	888

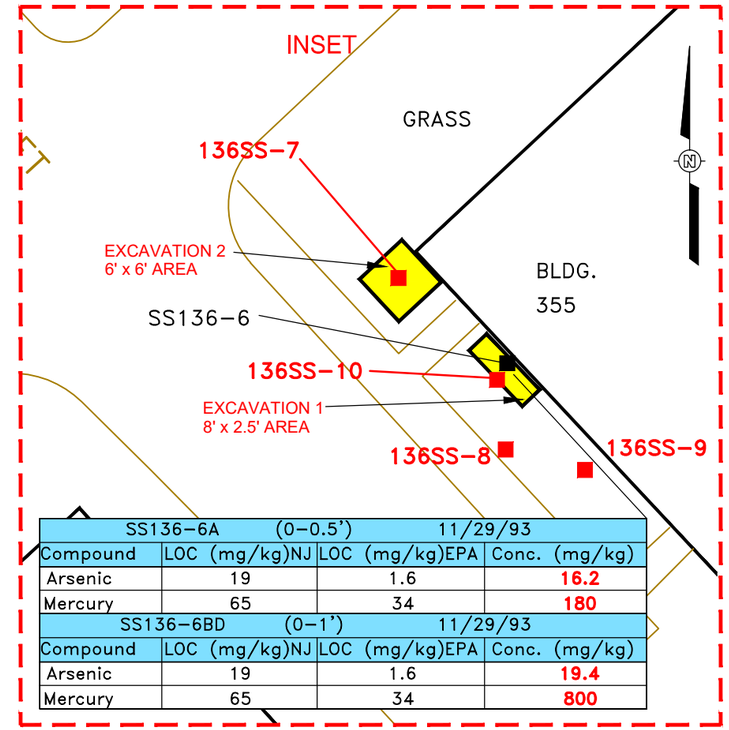
SS136-3A (0.5-1') 11/29/93			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	9.33

SS136-4A (0.5-1') 11/29/93			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	11.2

SS136-5A (0.5-1') 11/29/93			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	19.7

(NO PCBs)

MW101-1 (20-30')		5/1/94	7/29/94
Compound	LOC (ug/L)	Conc. (ug/L)	Conc. (ug/L)
Aluminum	200	1,470/ND#	23,500
Arsenic	3	ND/ND#	7.97
Beryllium	1	ND/ND#	1.83
Iron	300	4,470/ND#	73,600
Lead	5	ND/17.5#	25.1
Manganese	50	358/45.4#	2,710
Vanadium	37	ND/ND#	58.6



SS136-6A (0-0.5') 11/29/93			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	16.2
Mercury	65	34	180
SS136-6BD (0-1') 11/29/93			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	19.4
Mercury	65	34	800

RAILROAD
TREE LINE
FENCE
TRANSFORMER (TR-732)
BLAST WALL
STORM SEWER (STS OR STS)
SANITARY SEWER (SS OR SS)
EARTH MOUND
BUILDING (BL.DG. NO.)
FORMER BUILDING (BL.DG. NO.)
COVERED WALKWAY
SWAMP
WATER

EXISTING SAMPLING LOCATIONS
- MONITORING WELL
- SURFACE WATER/SEDIMENT
- SURFACE SOIL
- SOIL BORING
- TEST PIT
- HYDROPUNCH

PHASE I 2A/3A SAMPLING LOCATIONS
- MONITORING WELL
- SURFACE WATER/SEDIMENT
- SURFACE SOIL
- SOIL BORING
- TEST PIT
- HYDROPUNCH

AREA EXCAVATED DURING INTERIM REMEDIAL ACTION, NOVEMBER 2003.

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

SCALE
0 50 100 FEET

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-16, DATED 11/27/06)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 136 - BUILDING 355 METALLURGY LABORATORY LOC EXCEEDENCES

ARCADIS

FIGURE
23-7

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC:T.E. TALELE PM:T.LLEWELLYN TM:K.PANHORST LYR:(Opt)ON=*;OFF=*REF* PAGESETUP: SYR-LB-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/6/2014 2:21 PM BY: FOX, AARON
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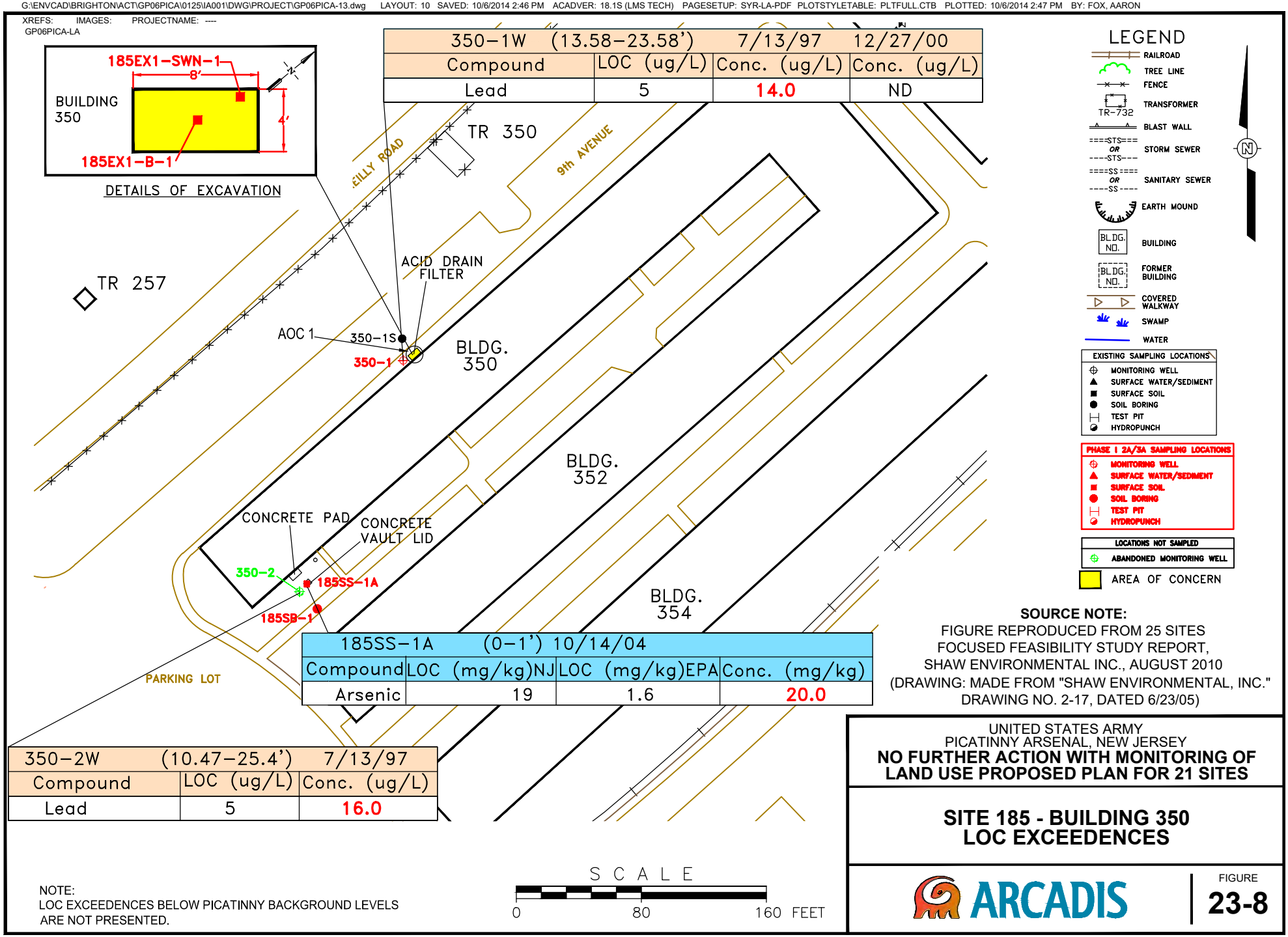
GP06PICA-LB



350-1W (13.58-23.58')		7/13/97	12/27/00
Compound	LOC (ug/L)	Conc. (ug/L)	Conc. (ug/L)
Lead	5	14.0	ND

185SS-1A (0-1') 10/14/04			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	20.0

350-2W (10.47-25.4')		7/13/97
Compound	LOC (ug/L)	Conc. (ug/L)
Lead	5	16.0

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010 (DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-17, DATED 6/23/05)

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 185 - BUILDING 350
LOC EXCEEDENCES

ARCADIS

FIGURE
23-8

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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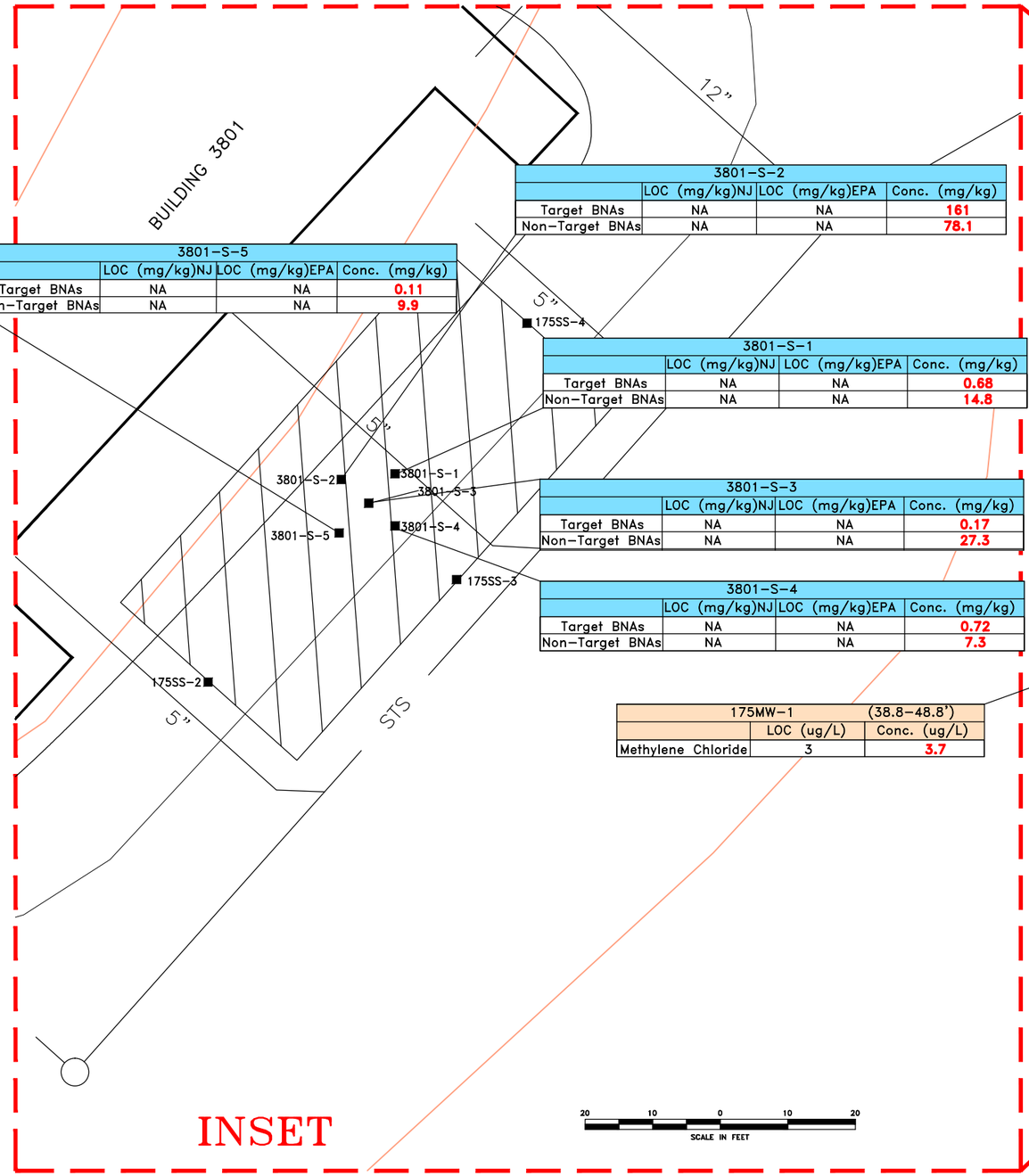
GP06PICA-LB



3801-S-2	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Target BNAs	NA	NA	161
Non-Target BNAs	NA	NA	78.1

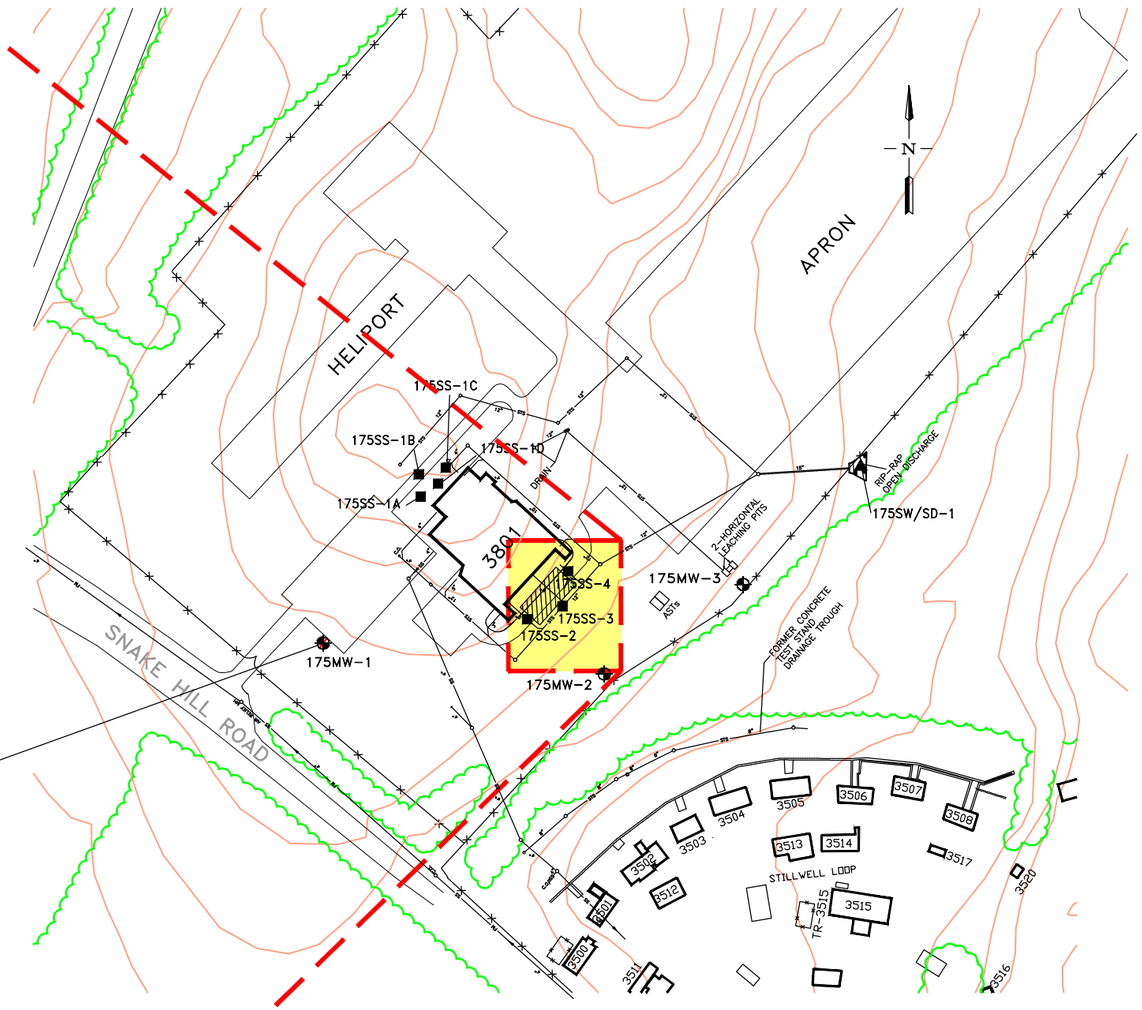
3801-S-5	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Target BNAs	NA	NA	0.11
Non-Target BNAs	NA	NA	9.9

3801-S-1	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Target BNAs	NA	NA	0.68
Non-Target BNAs	NA	NA	14.8

3801-S-3	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Target BNAs	NA	NA	0.17
Non-Target BNAs	NA	NA	27.3

3801-S-4	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Target BNAs	NA	NA	0.72
Non-Target BNAs	NA	NA	7.3

175MW-1	(38.8-48.8')	
	LOC (ug/L)	Conc. (ug/L)
Methylene Chloride	3	3.7



EXISTING SAMPLING LOCATIONS
MONITORING WELL
SURFACE WATER/SEDIMENT
SURFACE SOIL

AREA OF SOIL REMOVAL, RCRA CLOSURE OF BUILDING 3801 90-DAY HAZARDOUS WASTE STORAGE AREA

AREA OF ATTAINMENT

RAILROAD
TREE LINE
FENCE
TRANSFORMER (TR-732)
BLAST WALL
STS OR STS — STORM SEWER
SS OR SS — SANITARY SEWER
EARTH MOUND
BLDG. NO. — BUILDING
BLDG. NO. — FORMER BUILDING
COVERED WALKWAY
SWAMP
WATER

SCALE
0 200 400 FEET

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010 (DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-18, DATED 4/07/10)

NOTE:
TOPOGRAPHIC CONTOUR SOURCE IS THE IDENTIFICATION AND ANALYSIS OF WETLANDS, FLOODPLAINS, THREATENED AND ENDANGERED SPECIES AND ARCHAEOLOGICAL GEOMORPHOLOGY AT PICATINNY ARSENAL, NJ (WES, 1994), WHICH USED TOPOGRAPHIC CONTOURS DERIVED FROM 1948 SURVEY MAPS. THESE SURVEY MAPS WERE SCANNED TO CREATE ELECTRONIC FILES AND WERE MANUALLY REFINED. WHILE THESE CONTOURS DEPICT GENERAL TOPOGRAPHY WELL, THEY ARE NOT PRECISE IN SOME LOCATIONS.

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 175 - BUILDING 3801
LOC EXCEEDENCES

ARCADIS

FIGURE
23-9

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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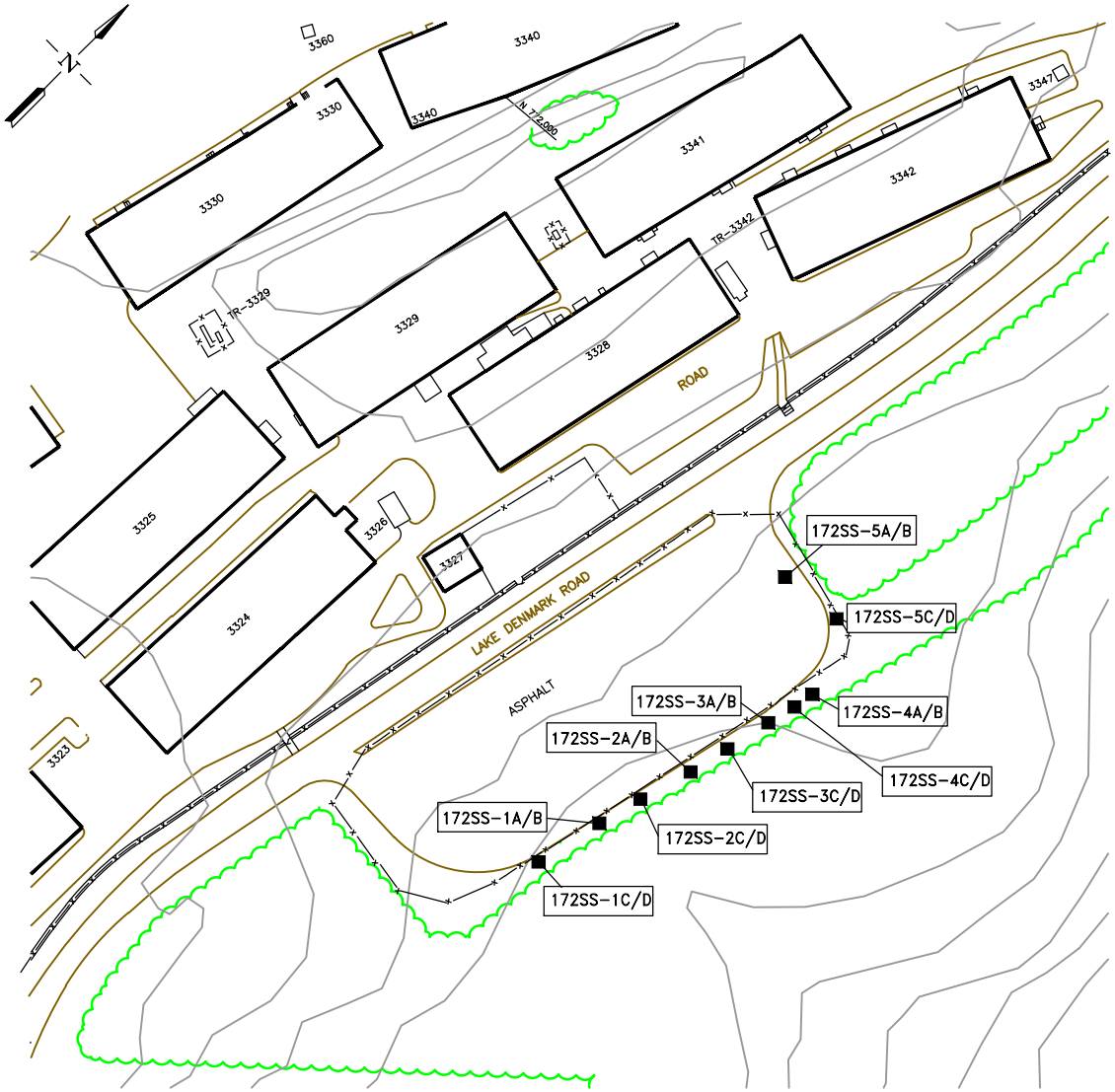
XREFS: IMAGES: PROJECTNAME: ----
GP06PICA-LA



LEGEND

- SIDEWALK
- RAILROAD
- TREE LINE
- FENCE
- TRANSFORMER
- BLAST WALL
- STS — STORM SEWER
- SS — SANITARY SEWER
- EARTH MOUND
- BUILDING
- FORMER BUILDING
- COVERED WALKWAY
- SWAMP
- WATER
- 5' SURFACE CONTOUR
- PAVED ROADWAY
- UNPAVED ROADWAY
- MONITORING WELL
- SOIL BORING
- SURFACE WATER/SEDIMENT
- SURFACE SOIL

SCALE
1"=130'
0 65 130

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES
FOCUSED FEASIBILITY STUDY REPORT,
SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC."
DRAWING NO. 2-19, DATED 7/25/05)

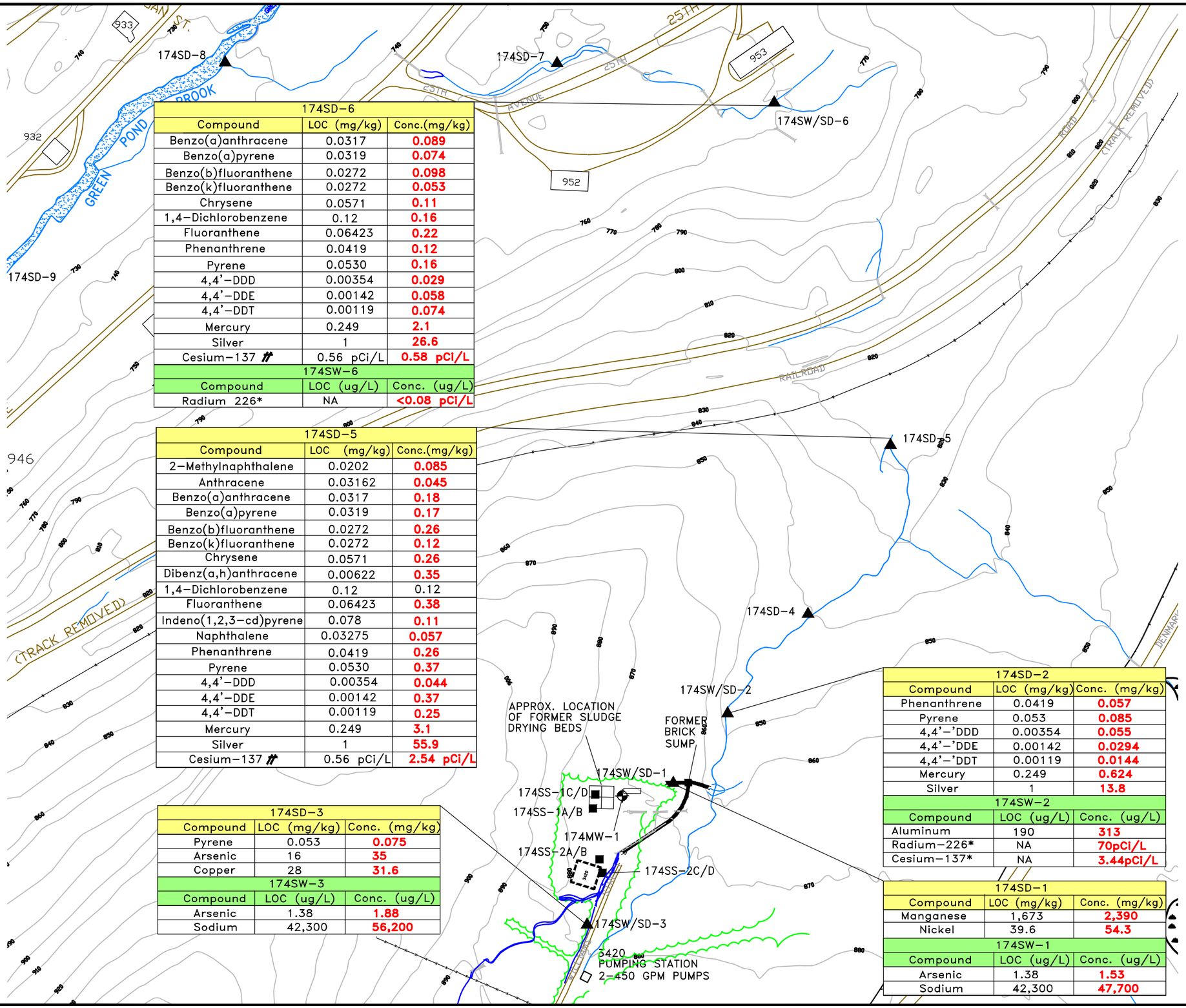
NOTE:
TOPOGRAPHIC CONTOUR SOURCE IS THE IDENTIFICATION AND ANALYSIS OF WETLANDS, FLOODPLAINS, THREATENED AND ENDANGERED SPECIES AND ARCHAEOLOGICAL GEOMORPHOLOGY AT PICATINNY, NJ (WES, 1994), WHICH USED TOPOGRAPHIC CONTOURS DERIVED FROM 1948 SURVEY MAPS. THESE SURVEY MAPS WERE SCANNED TO CREATE ELECTRONIC FILES AND WERE MANUALLY REFINED. WHILE THESE CONTOURS DEPICT GENERAL TOPOGRAPHY WELL, THEY ARE NOT PRECISE IN SOME LOCATIONS.

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 172
PARKING LOT ACROSS
FROM BLDG 3328

ARCADIS

FIGURE
23-10



174SD-6		
Compound	LOC (mg/kg)	Conc.(mg/kg)
Benzo(a)anthracene	0.0317	0.089
Benzo(a)pyrene	0.0319	0.074
Benzo(b)fluoranthene	0.0272	0.098
Benzo(k)fluoranthene	0.0272	0.053
Chrysene	0.0571	0.11
1,4-Dichlorobenzene	0.12	0.16
Fluoranthene	0.06423	0.22
Phenanthrene	0.0419	0.12
Pyrene	0.0530	0.16
4,4'-DDD	0.00354	0.029
4,4'-DDE	0.00142	0.058
4,4'-DDT	0.00119	0.074
Mercury	0.249	2.1
Silver	1	26.6
Cesium-137 #	0.56 pCi/L	0.58 pCi/L
174SW-6		
Compound	LOC (ug/L)	Conc. (ug/L)
Radium 226*	NA	<0.08 pCi/L

174SD-5		
Compound	LOC (mg/kg)	Conc.(mg/kg)
2-Methylnaphthalene	0.0202	0.085
Anthracene	0.03162	0.045
Benzo(a)anthracene	0.0317	0.18
Benzo(a)pyrene	0.0319	0.17
Benzo(b)fluoranthene	0.0272	0.26
Benzo(k)fluoranthene	0.0272	0.12
Chrysene	0.0571	0.26
Dibenz(a,h)anthracene	0.00622	0.35
1,4-Dichlorobenzene	0.12	0.12
Fluoranthene	0.06423	0.38
Indeno(1,2,3-cd)pyrene	0.078	0.11
Naphthalene	0.03275	0.057
Phenanthrene	0.0419	0.26
Pyrene	0.0530	0.37
4,4'-DDD	0.00354	0.044
4,4'-DDE	0.00142	0.37
4,4'-DDT	0.00119	0.25
Mercury	0.249	3.1
Silver	1	55.9
Cesium-137 #	0.56 pCi/L	2.54 pCi/L

174SD-3		
Compound	LOC (mg/kg)	Conc. (mg/kg)
Pyrene	0.053	0.075
Arsenic	16	35
Copper	28	31.6
174SW-3		
Compound	LOC (ug/L)	Conc. (ug/L)
Arsenic	1.38	1.88
Sodium	42,300	56,200

174SD-2		
Compound	LOC (mg/kg)	Conc. (mg/kg)
Phenanthrene	0.0419	0.057
Pyrene	0.053	0.085
4,4'-'DDD	0.00354	0.055
4,4'-'DDE	0.00142	0.0294
4,4'-'DDT	0.00119	0.0144
Mercury	0.249	0.624
Silver	1	13.8
174SW-2		
Compound	LOC (ug/L)	Conc. (ug/L)
Aluminum	190	313
Radium-226*	NA	70pCi/L
Cesium-137*	NA	3.44pCi/L

174SD-1		
Compound	LOC (mg/kg)	Conc. (mg/kg)
Manganese	1,673	2,390
Nickel	39.6	54.3
174SW-1		
Compound	LOC (ug/L)	Conc. (ug/L)
Arsenic	1.38	1.53
Sodium	42,300	47,700

NOTES:

NA - NOT AVAILABLE
* RADIUM-226 AND CESIUM-137 DO NOT HAVE LOCs, HOWEVER, CONCENTRATIONS IN 174SW-2 EXCEEDED RBCs BASED ON USEPA GUIDANCE (1991) AMENDED BY THE DINAN (1992) MEMORANDUM, AND BACKGROUND CONCENTRATIONS.

THE LOC PRESENTED FOR CESIUM-137 IN SEDIMENT IS EQUAL TO THE BACKGROUND THRESHOLD VALUE FROM THE PICATINNY BACKGROUND STUDY REPORT.

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

RAILROAD
TREE LINE
FENCE
TRANSFORMER (TR-732)
BLAST WALL
STORM SEWER (STS)
SANITARY SEWER (SS)
EARTH MOUND
BUILDING (BLDG. NO.)
FORMER BUILDING
COVERED WALKWAY
SWAMP
WATER
SURFACE WATER/ SEDIMENT SAMPLE
SOIL SAMPLE
EXCAVATION

SCALE
0 160 320 FEET

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-21, DATED 2/28/07)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 174 - FORMER BUILDING 3420 LOC EXCEEDENCES

ARCADIS

FIGURE
23-11

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF* PAGESETUP: SYR-LB-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/6/2014 2:52 PM BY: FOX, AARON
G:\ENVCAD\BRIGHTON\ACT\GP06PICA\01251\A001DWG\PROJECT\GP06PICA-17.dwg LAYOUT: 13 SAVED: 10/6/2014 2:52 PM ACADVER: 18.1S (LMS TECH)
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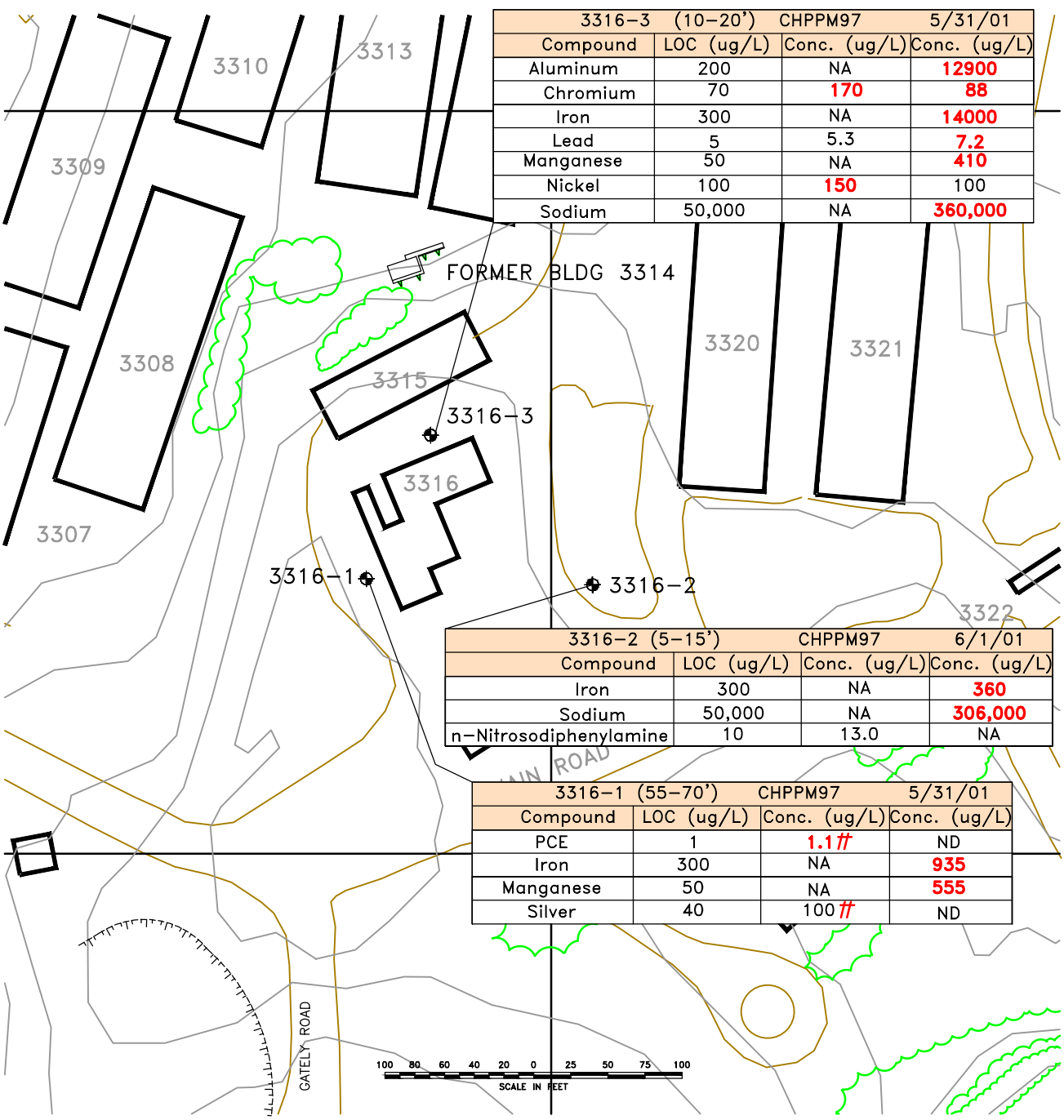
GP06PICA-LB



3316-3 (10-20')		CHPPM97	5/31/01
Compound	LOC (ug/L)	Conc. (ug/L)	Conc. (ug/L)
Aluminum	200	NA	**12900**
Chromium	70	**170**	**88**
Iron	300	NA	**14000**
Lead	5	5.3	**7.2**
Manganese	50	NA	**410**
Nickel	100	**150**	100
Sodium	50,000	NA	**360,000**

3316-2 (5-15')		CHPPM97	6/1/01
Compound	LOC (ug/L)	Conc. (ug/L)	Conc. (ug/L)
Iron	300	NA	**360**
Sodium	50,000	NA	**306,000**
n-Nitrosodiphenylamine	10	13.0	NA

3316-1 (55-70')		CHPPM97	5/31/01
Compound	LOC (ug/L)	Conc. (ug/L)	Conc. (ug/L)
PCE	1	**1.1 #**	ND
Iron	300	NA	**935**
Manganese	50	NA	**555**
Silver	40	100 #	ND

RAILROAD
TREE LINE
FENCE
TRANSFORMER (TR-732)
BLAST WALL
STORM SEWER (STS OR STS)
SANITARY SEWER (SS OR SS)
EARTH MOUND
BUILDING (BLDG. NO.)
FORMER BUILDING (BLDG. NO.)
COVERED WALKWAY
SWAMP
WATER

= NOT DETECTED IN DUPLICATE SAMPLE

EXISTING SAMPLING LOCATIONS
MONITORING WELL
SURFACE WATER/SEDIMENT
SURFACE SOIL
SOIL BORING
TEST PIT
HYDROPUNCH

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-22, DATED 4/07/10)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 186 - BUILDING 3316 FIREHOUSE-LOC EXCEEDANCES

ARCADIS

FIGURE
23-12

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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XREFS: IMAGES: PROJECTNAME: ---
GP06PICA-PA

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\BRIGHTON\ACT\GP06PICA\0125\IA001\DWG\PROJECT\GP06PICA-19.dwg LAYOUT: 15 SAVED: 1/21/2013 5:20 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: SYR-LA-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/6/2014 2:53 PM BY: FOX, AARON
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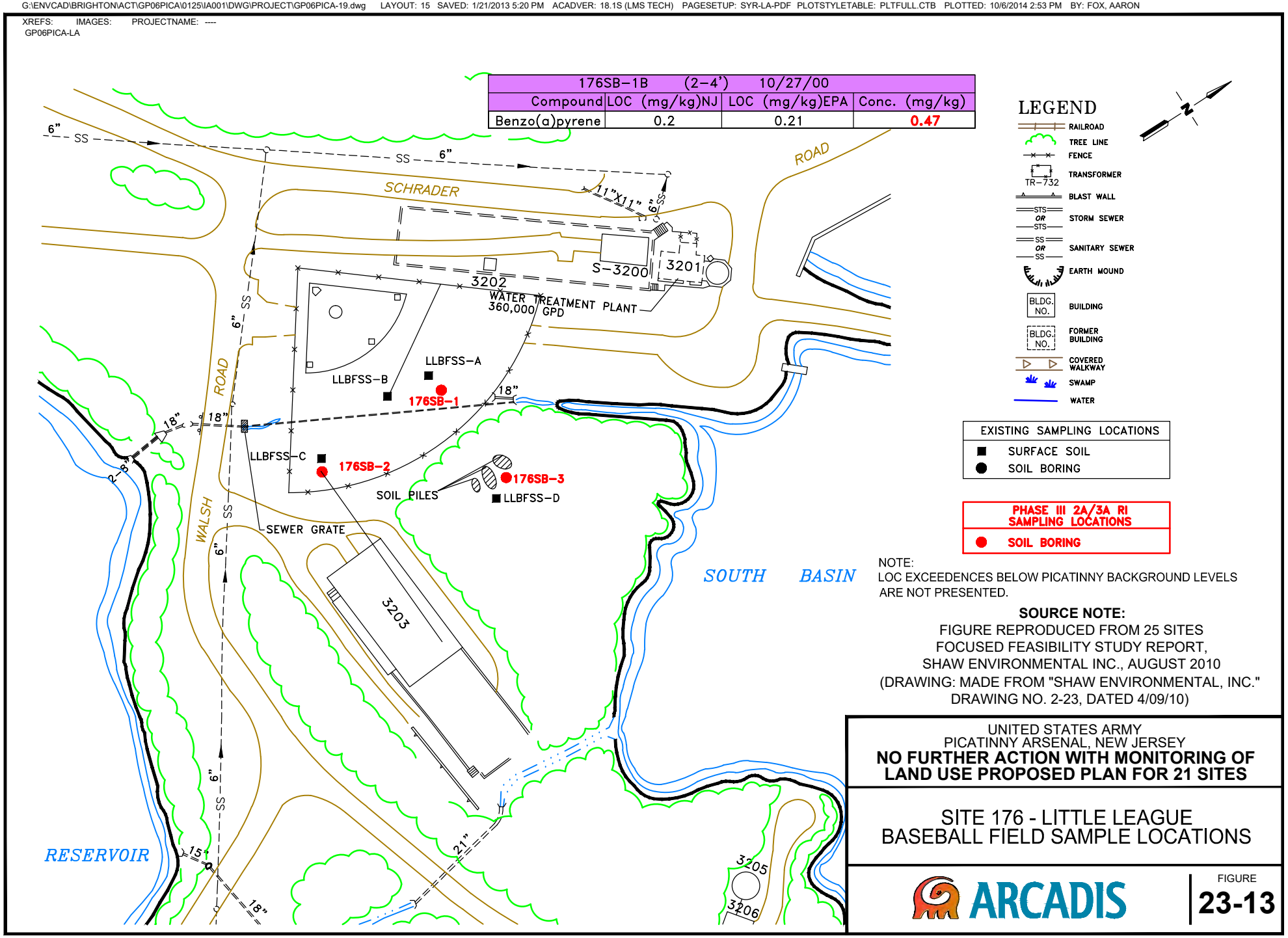
GP06PICA-LA



176SB-1B (2-4') 10/27/00			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Benzo(a)pyrene	0.2	0.21	0.47

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

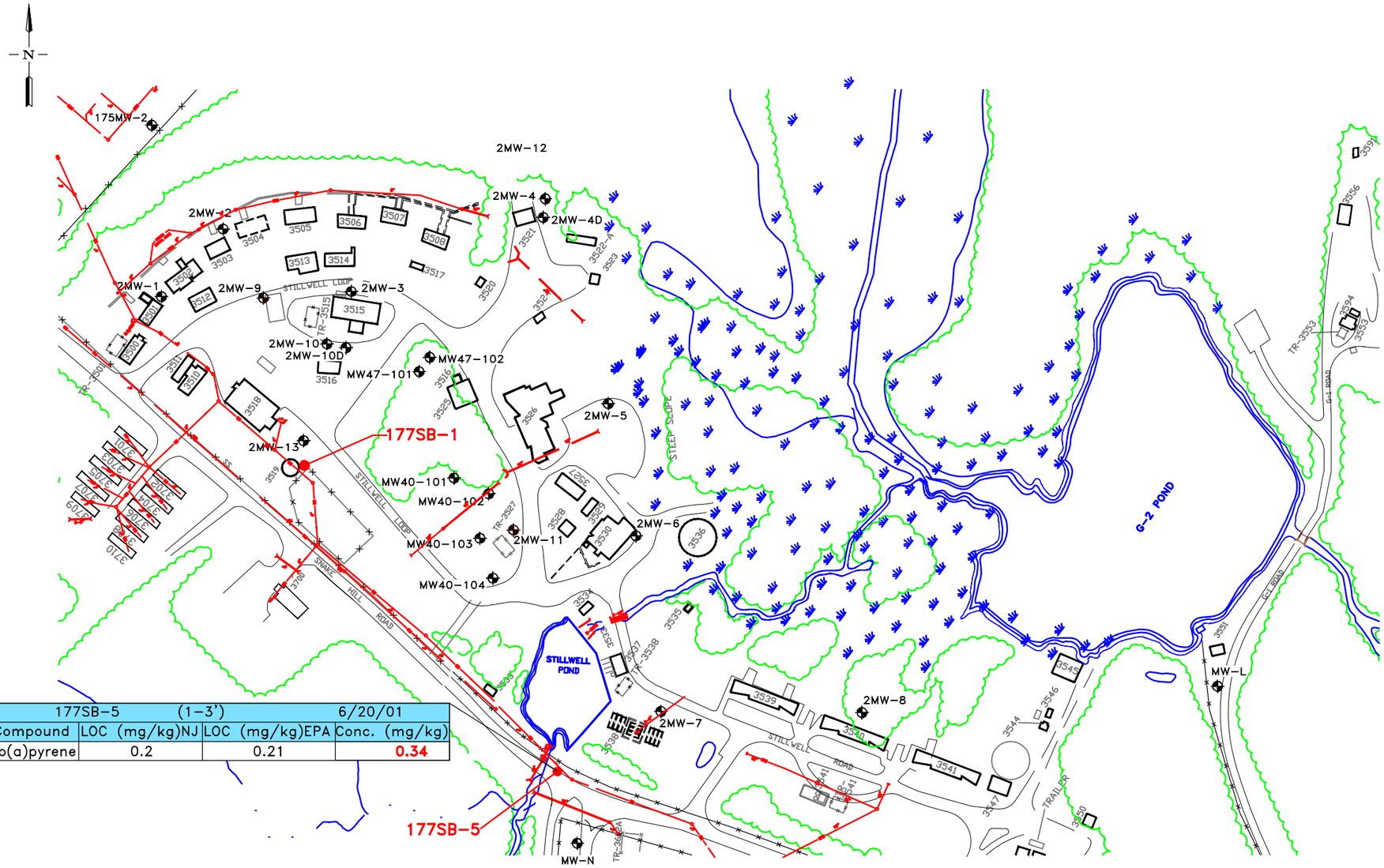
SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-23, DATED 4/09/10)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 176 - LITTLE LEAGUE BASEBALL FIELD SAMPLE LOCATIONS

ARCADIS

FIGURE
23-13



177SB-5	(1-3')	6/20/01	
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Benzo(a)pyrene	0.2	0.21	0.34

LEGEND

- RAILROAD
- TREE LINE
- FENCE
- TRANSFORMER (TR-732)
- BLAST WALL
- STORM SEWER (STS OR STS)
- SANITARY SEWER (SS OR SS)
- EARTH MOUND
- BUILDING (BLDG NO.)
- FORMER BUILDING (BLDG NO.)
- COVERED WALKWAY
- SWAMP
- WATER

EXISTING SAMPLING LOCATIONS	
●	SOIL BORING
⊕	MONITORING WELL

PHASE III 2A/3A RI SAMPLING LOCATIONS	
●	SOIL BORING

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010 (DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-24, DATED 4/15/10)

200 150 100 50 0 100 200
SCALE IN FEET
1" = 200ft

NOTE:
TOPOGRAPHIC CONTOUR SOURCE IS THE IDENTIFICATION AND ANALYSIS OF WETLANDS, FLOODPLAINS, THREATENED AND ENDANGERED SPECIES AND ARCHAEOLOGICAL GEOMORPHOLOGY AT PICATINNY, NJ (WES, 1994), WHICH USED TOPOGRAPHIC CONTOURS DERIVED FROM 1948 SURVEY MAPS. THESE SURVEY MAPS WERE SCANNED TO CREATE ELECTRONIC FILES AND WERE MANUALLY REFINED. WHILE THESE CONTOURS DEPICT GENERAL TOPOGRAPHY WELL, THEY ARE NOT PRECISE IN SOME LOCATIONS.

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 177 - 3500 BUILDING AREA
SEWER LINE INVESTIGATION

ARCADIS

FIGURE
23-14

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF* PAGESETUP: SYR-LB-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/6/2014 2:54 PM BY: FOX, AARON
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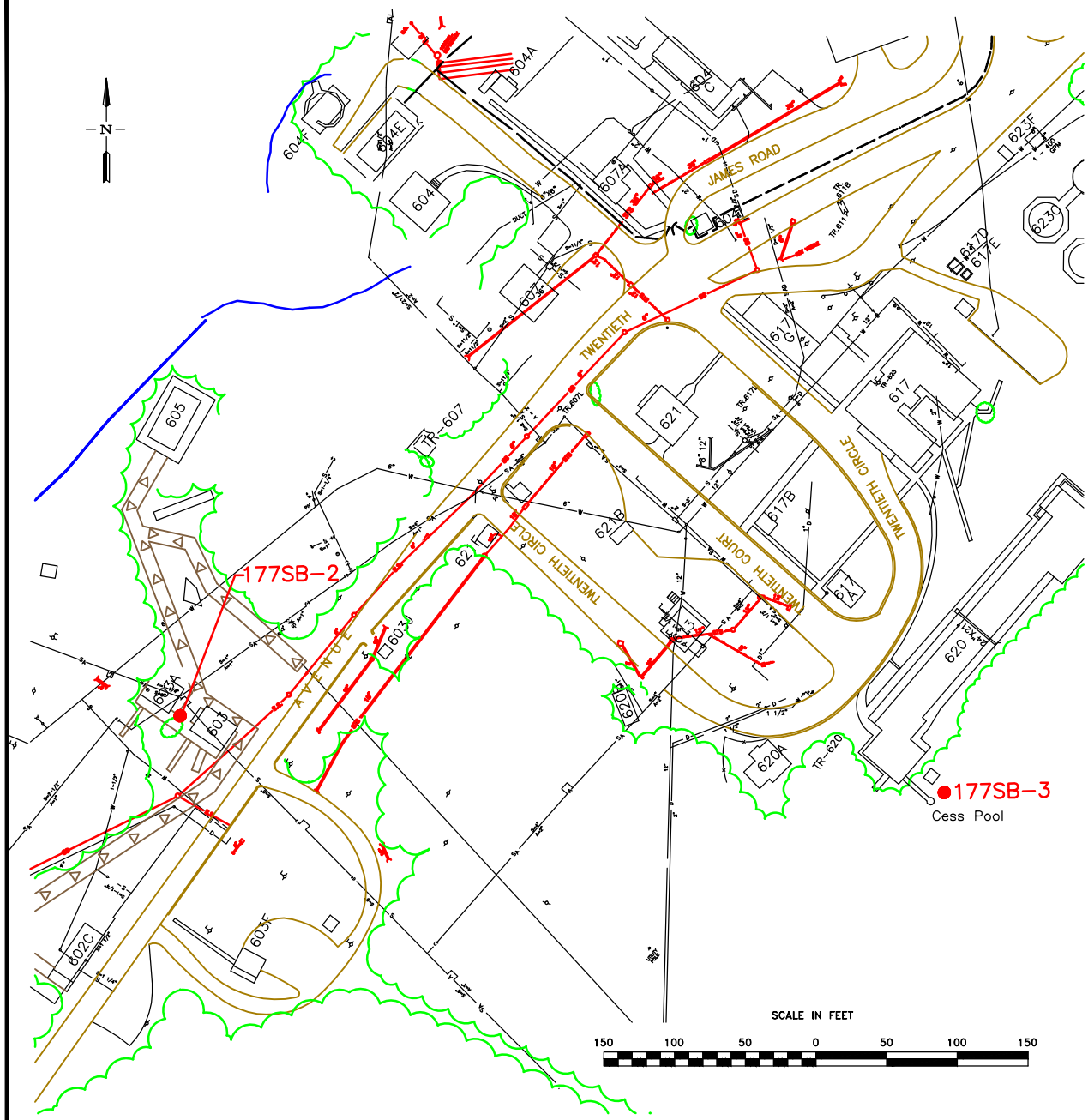

LEGEND

- RAILROAD
- TREE LINE
- FENCE
- TRANSFORMER (TR-732)
- BLAST WALL
- STORM SEWER (STS OR STS)
- SANITARY SEWER (SS OR SS)
- EARTH MOUND
- BUILDING (BLDG. NO.)
- FORMER BUILDING (BLDG. NO.)
- COVERED WALKWAY
- SWAMP
- WATER

EXISTING SAMPLING LOCATIONS
● SOIL BORING

PHASE III 2A/3A RI SAMPLING LOCATIONS
● SOIL BORING

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-25, DATED 4/15/10)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 177 - 600 BUILDING AREA SEWER LINE INVESTIGATION

ARCADIS

FIGURE
23-15

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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XREFS: IMAGES: PROJECTNAME: ----
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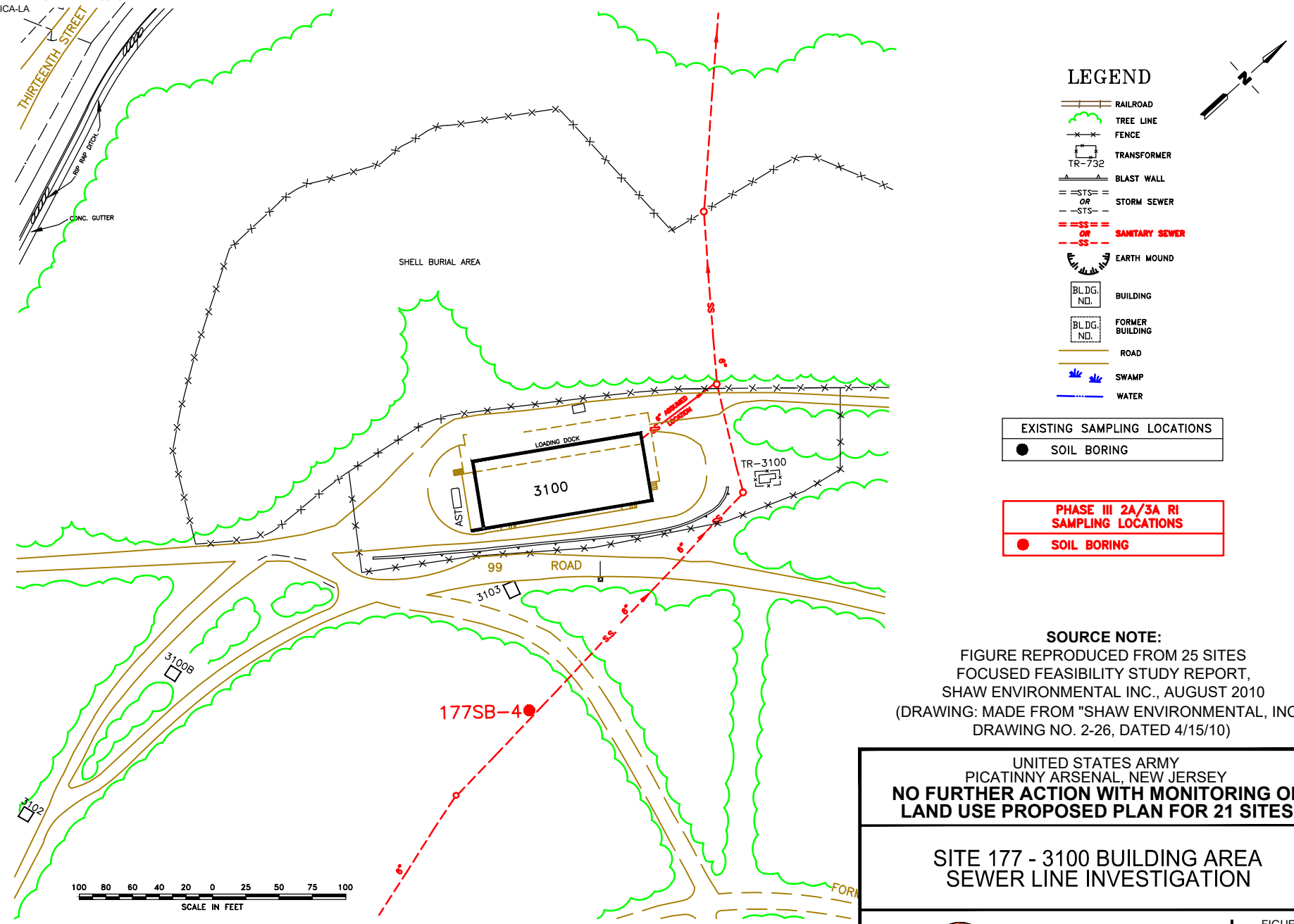


NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

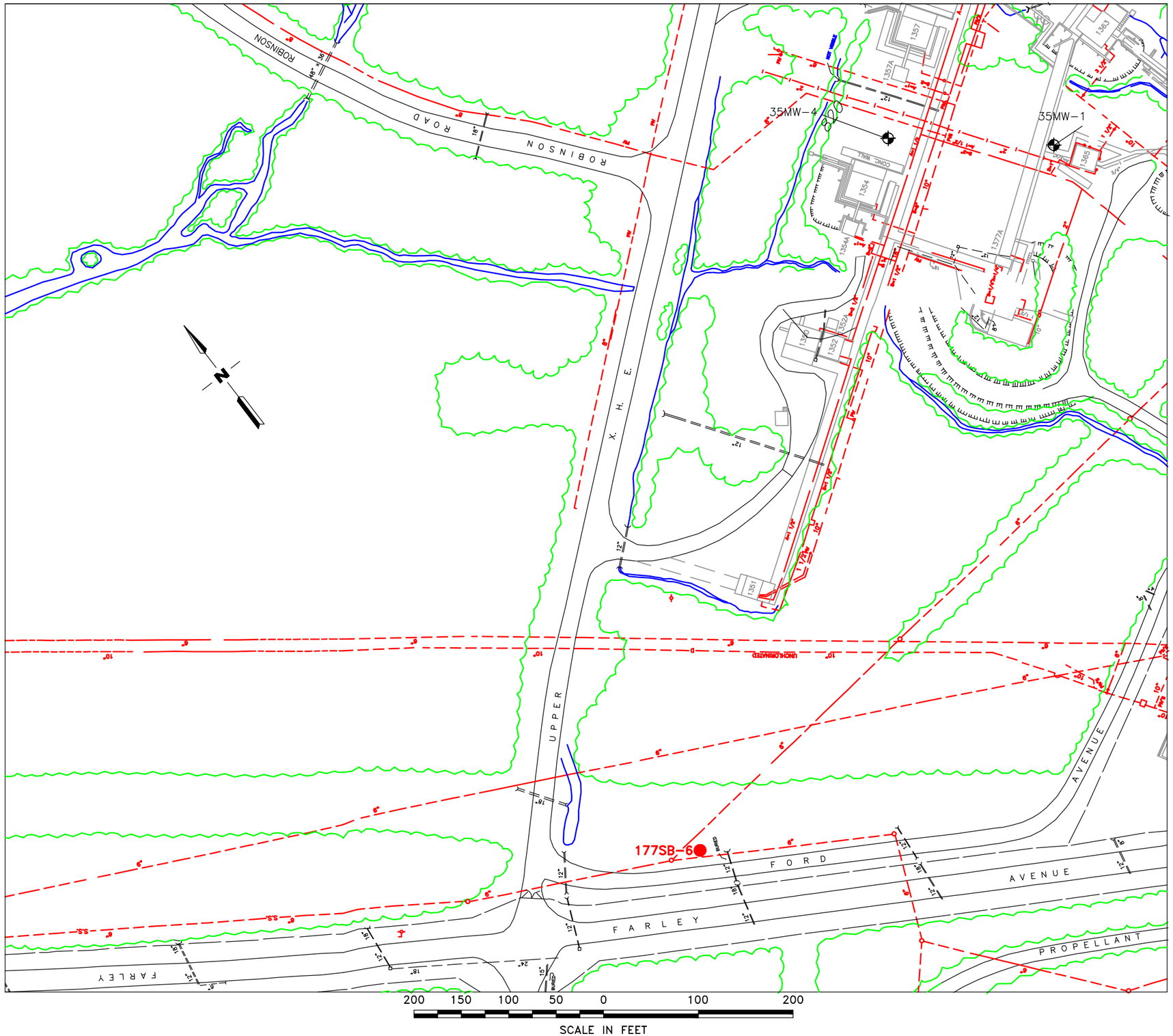
SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-26, DATED 4/15/10)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 177 - 3100 BUILDING AREA
SEWER LINE INVESTIGATION

ARCADIS

FIGURE
23-16



LEGEND

- RAILROAD
- TREE LINE
- FENCE
- TRANSFORMER (TR-732)
- BLAST WALL
- STORM SEWER (====STS==== OR ----STS----)
- SANITARY SEWER (====SS==== OR ----SS----)
- EARTH MOUND
- BUILDING (BLDG. NO.)
- FORMER BUILDING (BLDG. NO.)
- COVERED WALKWAY
- SWAMP
- WATER

EXISTING SAMPLING LOCATIONS
SOIL BORING
MONITORING WELL

PHASE III 2A/3A RI SAMPLING LOCATIONS
SOIL BORING

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010 (DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-27, DATED 4/15/10)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 177 - 1300 BUILDING AREA
SEWER LINE INVESTIGATION

ARCADIS

FIGURE
23-17

CITY:SYRACUSE,NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC:T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*:OFF=*REF*
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XREFS: IMAGES: PROJECTNAME: ----
GP06PICA-LB

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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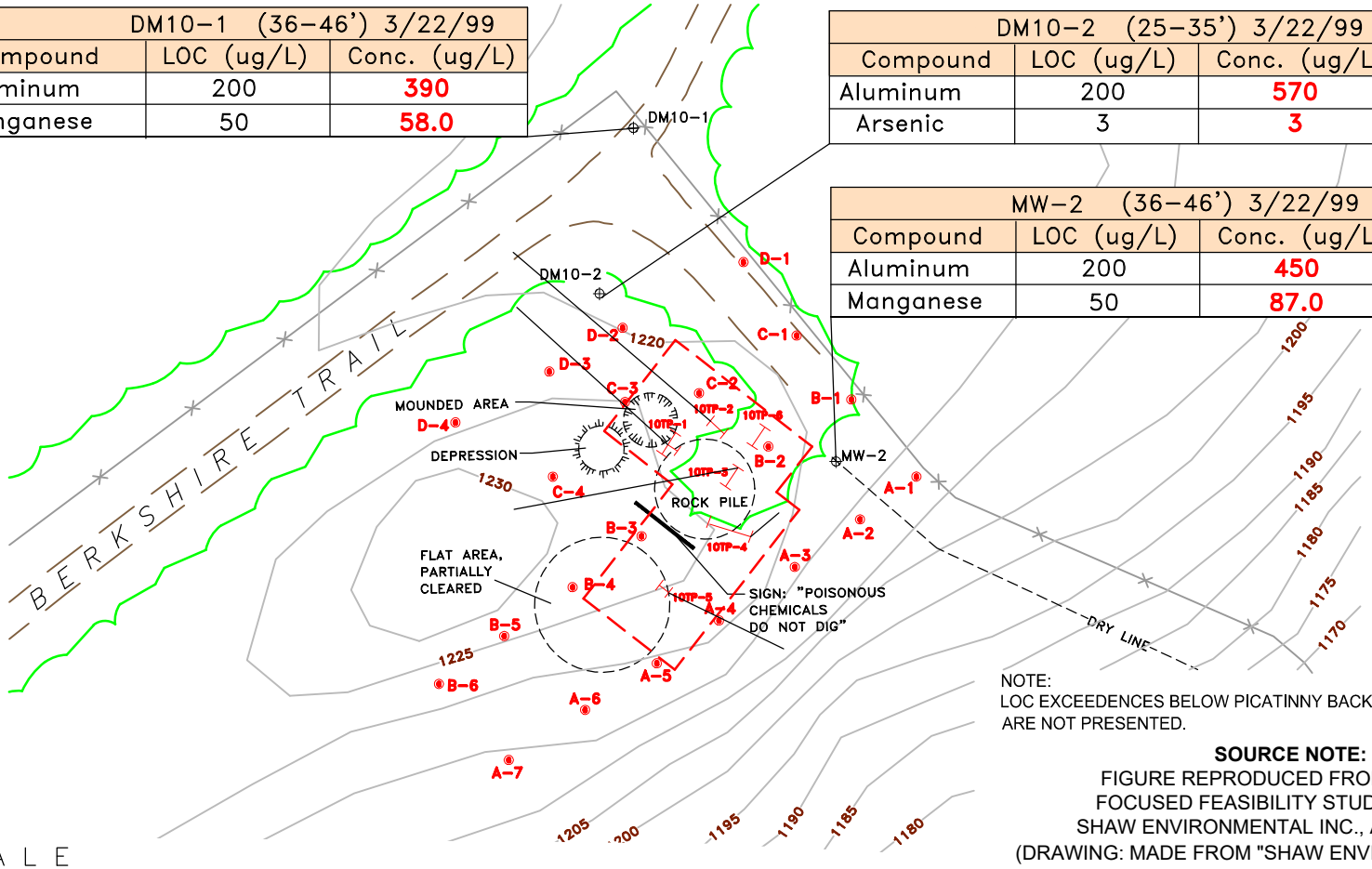
XREFS: IMAGES: PROJECTNAME: ----
GP06PICA-LA

Soil borings 10SB-1 and 10SB-2 will be located adjacent to the anomalies identified.

DM10-1 (36-46') 3/22/99		
Compound	LOC (ug/L)	Conc. (ug/L)
Aluminum	200	390
Manganese	50	58.0

DM10-2 (25-35') 3/22/99		
Compound	LOC (ug/L)	Conc. (ug/L)
Aluminum	200	570
Arsenic	3	3

MW-2 (36-46') 3/22/99		
Compound	LOC (ug/L)	Conc. (ug/L)
Aluminum	200	450
Manganese	50	87.0



NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010 (DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-29, DATED 4/15/10)

SCALE
0 50 100 FEET

RAILROAD
TREE LINE
FENCE
TRANSFORMER TR-732
BLAST WALL
STS OR STS — STORM SEWER
SS OR SS — SANITARY SEWER
GEOPHYSICAL SURVEY LOCATION
EARTH MOUND
BLDG. NO. — BUILDING
BLDG. NO. — FORMER BUILDING
COVERED WALKWAY
SWAMP
WATER

SAMPLING LOCATIONS
- MONITORING WELL
- SURFACE WATER/SEDIMENT
- SURFACE SOIL
- SOIL BORING
- TEST PIT
- HYDROPUNCH
- GORE-SORBER

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 10-CHEMEICAL BURIAL PIT LOC EXCEEDENCES

ARCADIS

FIGURE
23-18

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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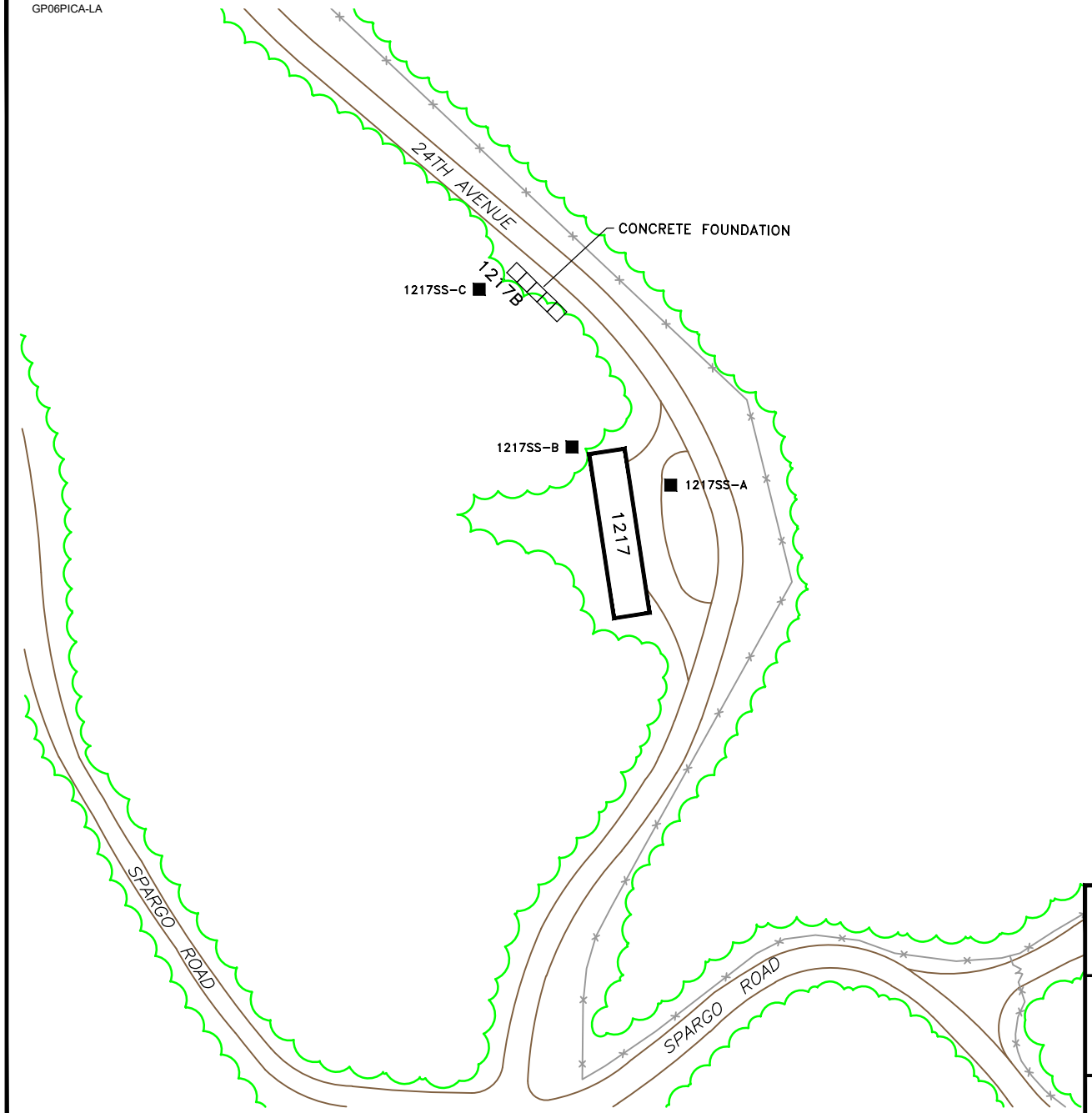
XREFS: IMAGES: PROJECTNAME: ----
GP06PICA-LA



LEGEND:

- RAILROAD
- TREE LINE
- FENCE
- TRANSFORMER (TR-732)
- BLAST WALL
- STORM SEWER (==== STS ==== OR ---- STS ----)
- SANITARY SEWER (==== SS ===== OR ----- SS -----)
- EARTH MOUND
- BUILDING (BLDG. NO.)
- FORMER BUILDING (BLDG. NO.)
- COVERED WALKWAY
- SWAMP

EXISTING SAMPLING LOCATIONS
- MONITORING WELL
- SURFACE WATER/SEDIMENT
- SURFACE SOIL

SCALE
0 100 200 FEET

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES
FOCUSED FEASIBILITY STUDY REPORT,
SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC."
DRAWING NO. 2-30, DATED 6/27/05)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 164 - BUILDING 1217,
GENERAL PURPOSE MAGAZINE

ARCADIS

FIGURE
23-19

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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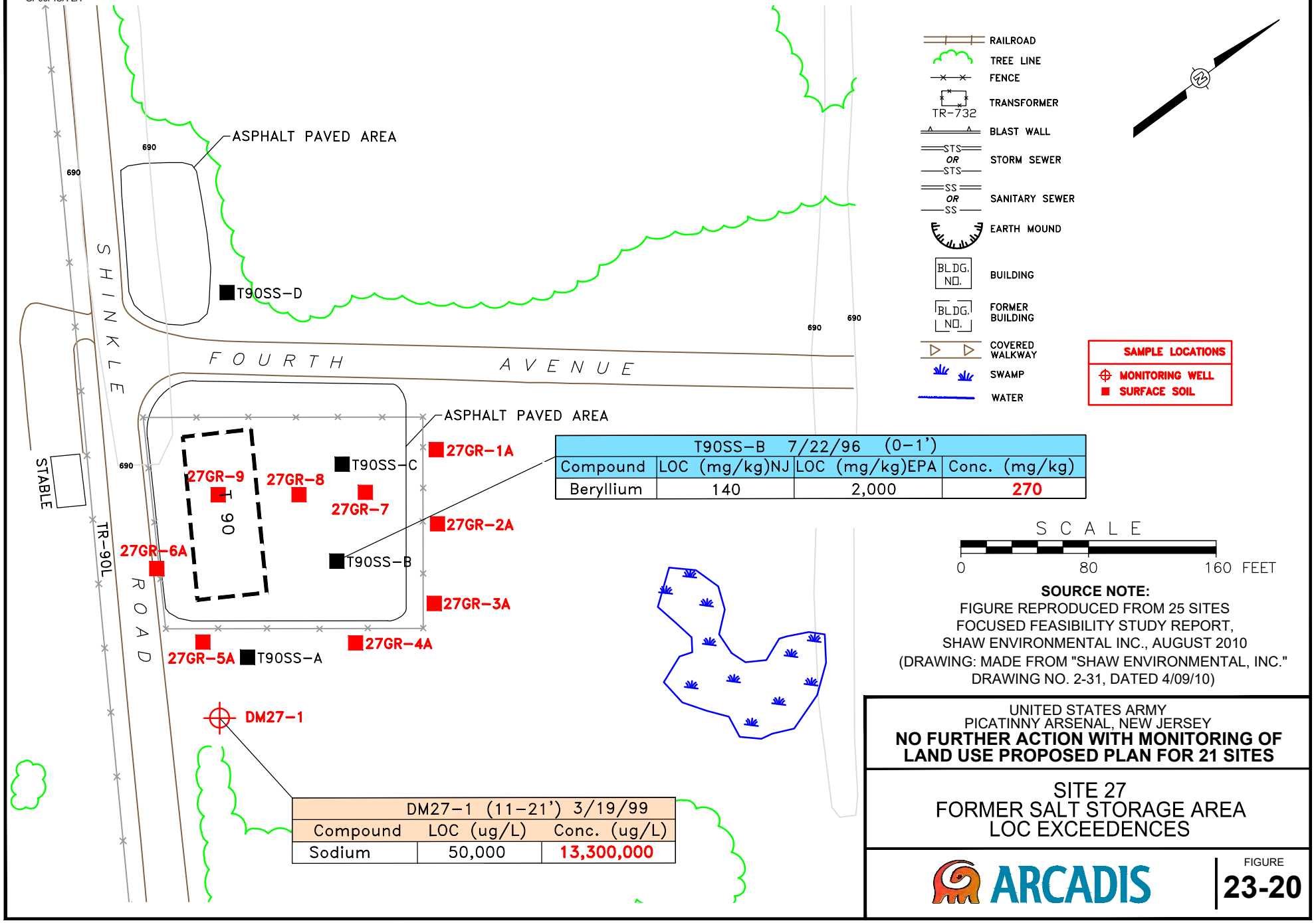


T90SS-B 7/22/96 (0-1')			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Beryllium	140	2,000	270

DM27-1 (11-21') 3/19/99		
Compound	LOC (ug/L)	Conc. (ug/L)
Sodium	50,000	13,300,000

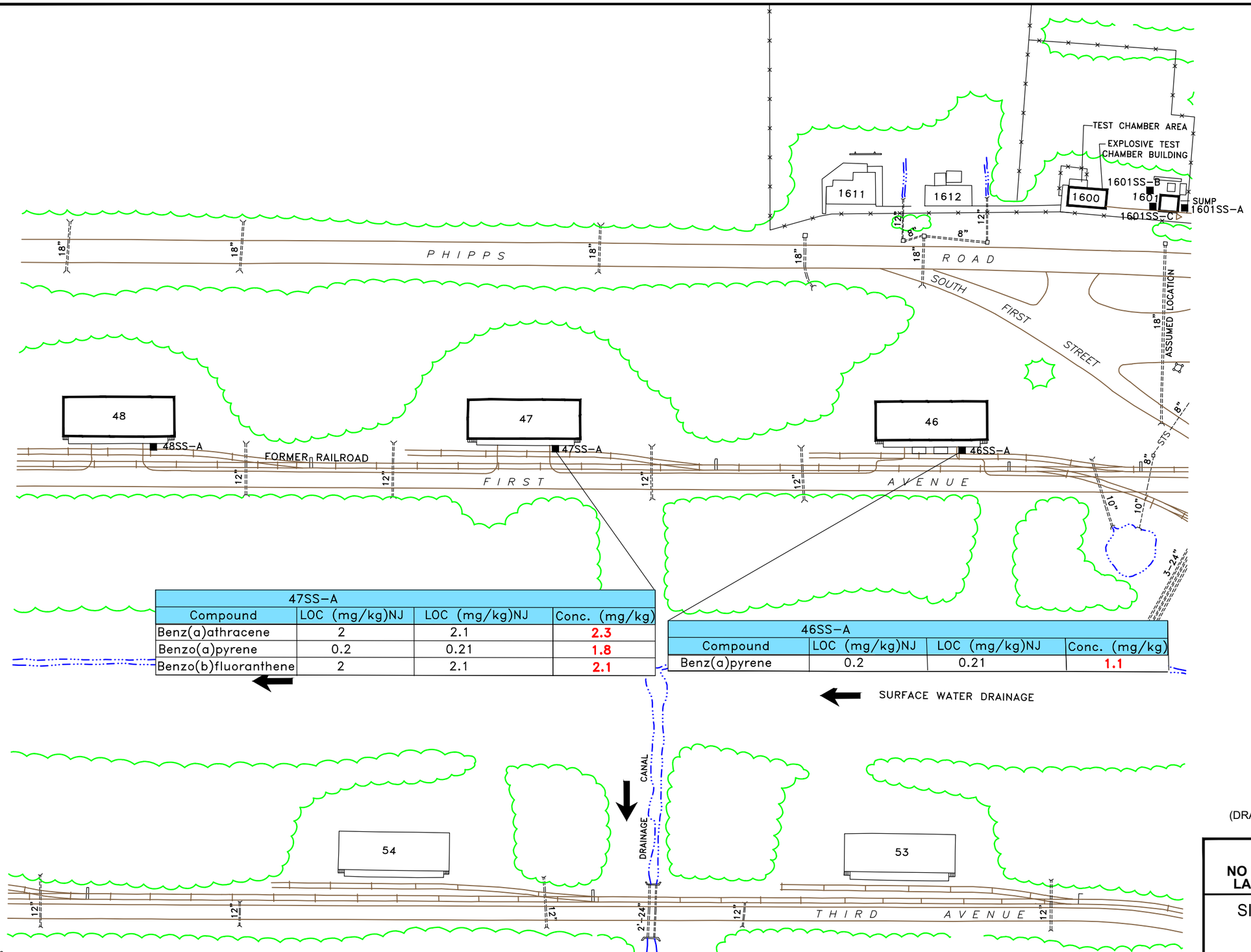
SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES
FOCUSED FEASIBILITY STUDY REPORT,
SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC."
DRAWING NO. 2-31, DATED 4/09/10)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 27
FORMER SALT STORAGE AREA
LOC EXCEEDENCES

ARCADIS

FIGURE
23-20



47SS-A			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)NJ	Conc. (mg/kg)
Benz(a)athracene	2	2.1	2.3
Benzo(a)pyrene	0.2	0.21	1.8
Benzo(b)fluoranthene	2	2.1	2.1

46SS-A			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)NJ	Conc. (mg/kg)
Benz(a)pyrene	0.2	0.21	1.1

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

LEGEND:

- RAILROAD
- TREE LINE
- FENCE
- TRANSFORMER (TR-732)
- BLAST WALL
- STORM SEWER (STS OR STS)
- SANITARY SEWER (SS OR SS)
- EARTH MOUND
- BUILDING (BLDG. NO.)
- FORMER BUILDING (BLDG. NO.)
- COVERED WALKWAY
- SWAMP

EXISTING SAMPLING LOCATIONS
- MONITORING WELL
- SURFACE WATER/SEDIMENT
- SURFACE SOIL

0 100 200
SCALE FEET

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-32, DATED 4/15/10)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 119 - BUILDINGS 46,47 AND 48N STORAGE MAGAZINES LOC EXCEEDENCES

ARCADIS

FIGURE
23-21

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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GP06PICA-LB

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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XREFS: IMAGES: PROJECTNAME: ----
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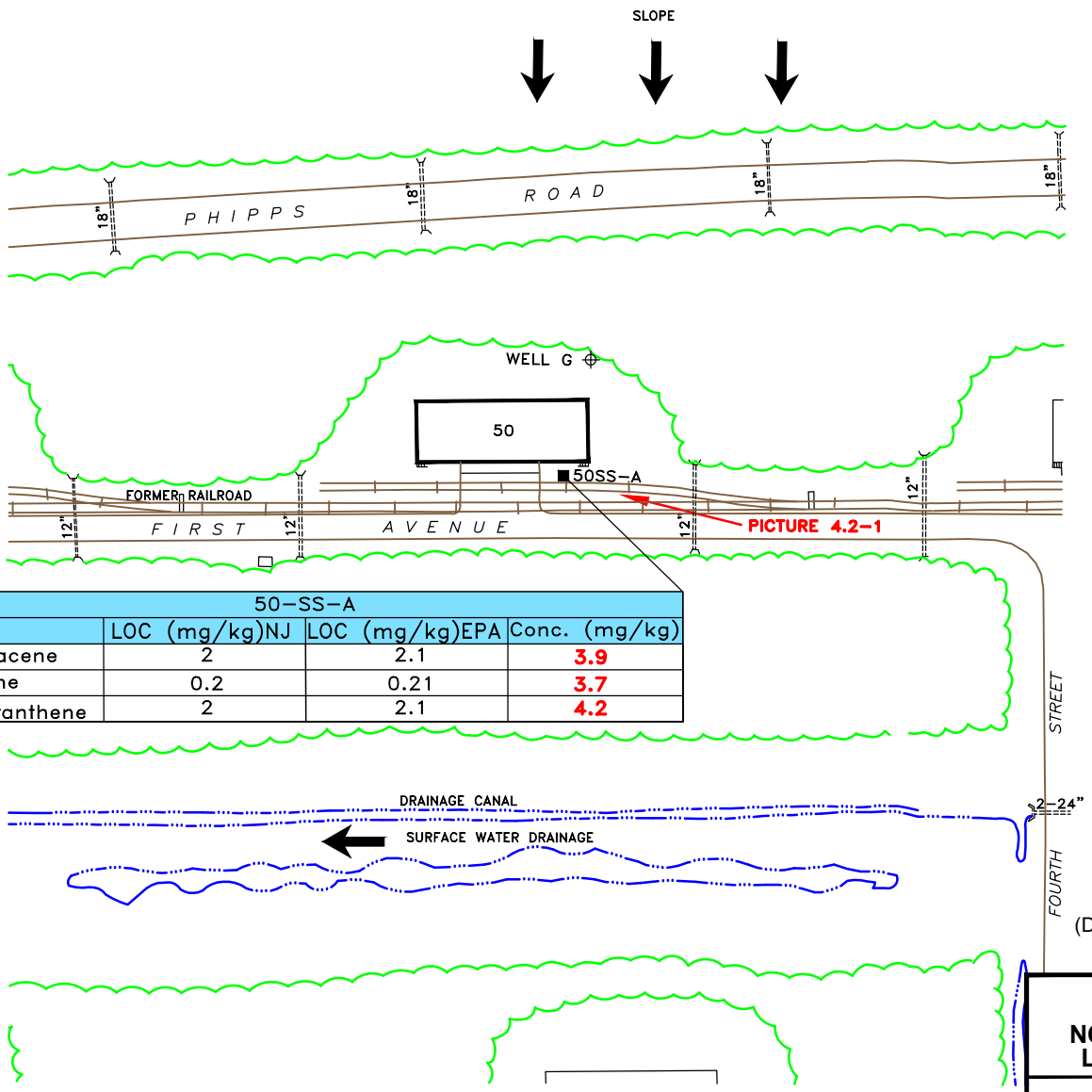

50-SS-A			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Benz(a)anthracene	2	2.1	3.9
Benzo(a)pyrene	0.2	0.21	3.7
Benzo(b)fluoranthene	2	2.1	4.2

LEGEND:

- RAILROAD
- TREE LINE
- FENCE
- TRANSFORMER (TR-732)
- BLAST WALL
- STS OR STS — STORM SEWER
- SS OR SS — SANITARY SEWER
- EARTH MOUND
- BUILDING (BLDG. NO.)
- FORMER BUILDING (BLDG. NO.)
- COVERED WALKWAY
- SWAMP

EXISTING SAMPLING LOCATIONS	
⊕	MONITORING WELL
▲	SURFACE WATER/SEDIMENT
■	SURFACE SOIL

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES
FOCUSED FEASIBILITY STUDY REPORT,
SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC."
DRAWING NO. 2-33, DATED 4/12/10)

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

SCALE
0 100 200 FEET

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 120 - BUILDING 50
STORAGE MAGAZINE
LOC EXCEEDENCES

ARCADIS

FIGURE
23-22

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC: T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF*
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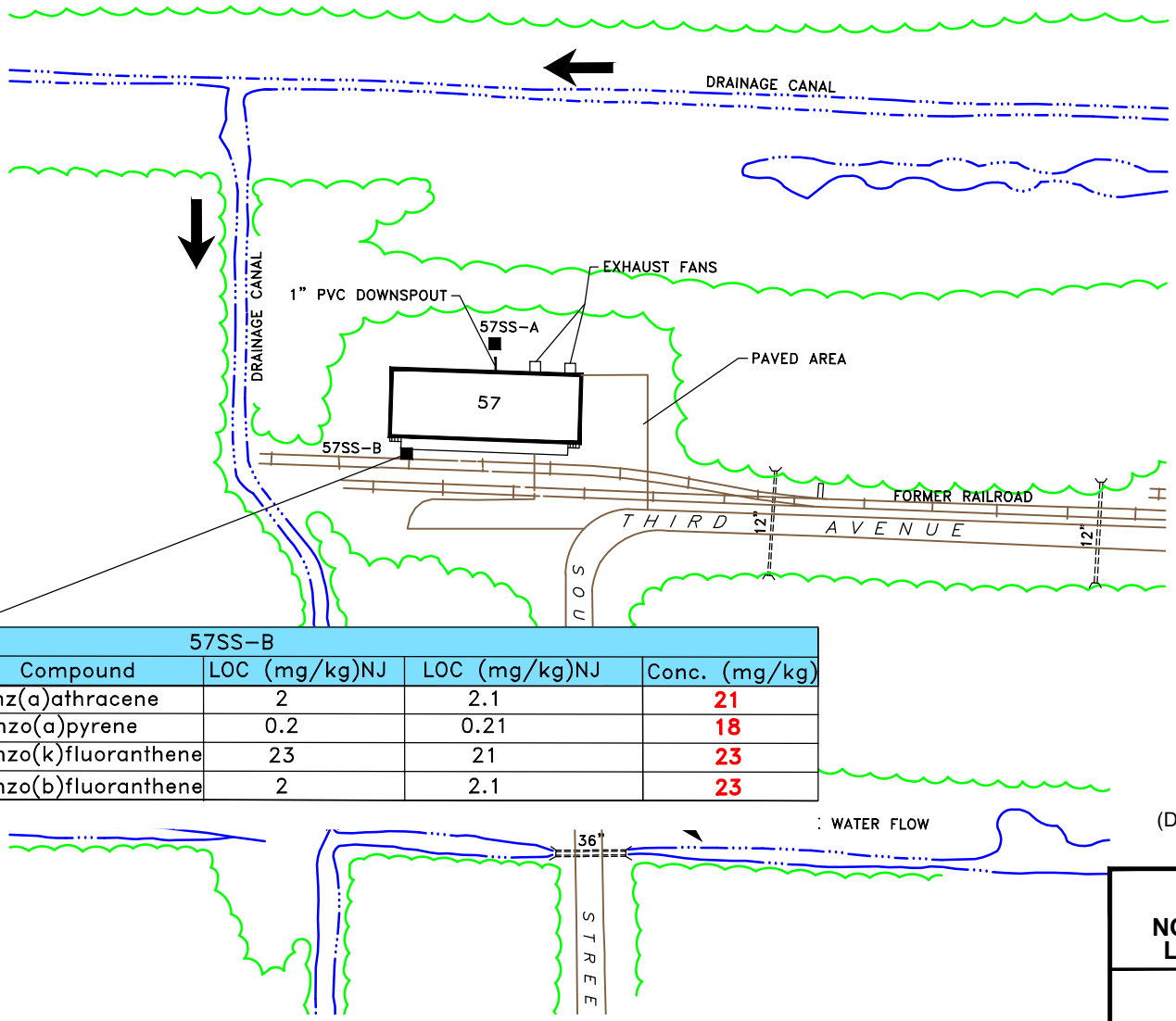
GP06PICA-LA



57SS-B			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)NJ	Conc. (mg/kg)
Benz(a)athracene	2	2.1	21
Benzo(a)pyrene	0.2	0.21	18
Benzo(k)fluoranthene	23	21	23
Benzo(b)fluoranthene	2	2.1	23

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

SCALE
0 50 100 FEET

LEGEND:

- RAILROAD
- TREE LINE
- FENCE
- TRANSFORMER (TR-732)
- BLAST WALL
- STORM SEWER (STS OR STS)
- SANITARY SEWER (SS OR SS)
- EARTH MOUND
- BUILDING (BLDG. NO.)
- FORMER BUILDING (BLDG. NO.)
- COVERED WALKWAY
- SWAMP

EXISTING SAMPLING LOCATIONS	
⊕	MONITORING WELL
▲	SURFACE WATER/SEDIMENT
■	SURFACE SOIL

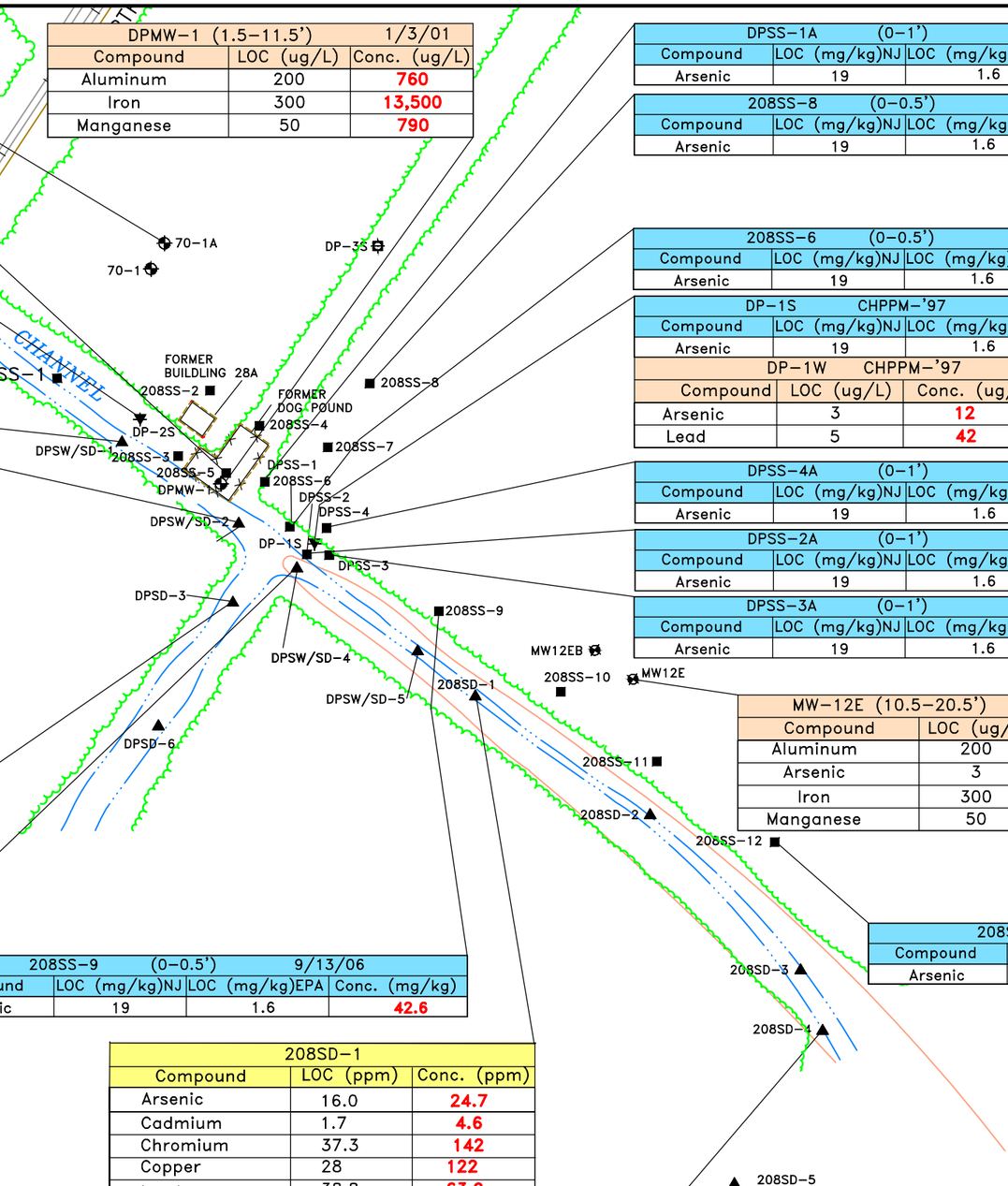
SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010
(DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-34, DATED 4/15/10)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

SITE 121 - BUILDING 57
LOC EXCEEDENCES

ARCADIS

FIGURE
23-23



MW70-1A (7-17') 1/3/01		
Compound	LOC (ug/L)	Conc. (ug/L)
Iron	300	5,100
Manganese	50	2,300

208SS-5 (0-0.5') 9/13/06			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	9.8

DP-2W		
Compound	LOC (ug/L)	Conc. (ug/L)
Arsenic	3	8.4
Lead	5	33

DPSW-1 10/5/00		
Compound	LOC (ug/L)	Conc. (ug/L)
Iron	1,790	2,700
Manganese	383	1,500

DPSD-2 (0-1') 10/5/00		
Compound	LOC (mg/kg)	Conc. (mg/kg)
Benz(a)anthracene	0.0317	0.11 #
Benzo(a)pyrene	0.0319	0.099
Benzo(b)fluoranthene	0.0272	0.15
Chrysene	0.0571	0.15 #
Fluoranthene	0.06423	0.21
Pyrene	0.053	0.185
Chromium	37.3	95.7
Lead	38.8	39.25
Silver	1	2.45

DPSW-2 10/5/00		
Compound	LOC (ug/L)	Conc. (ug/L)
Aluminum	190	415
Arsenic	1.38	7.2 #
Cadmium	0.28	0.45 #
Iron	1,790	10,050
Lead	3.2	4.7
Manganese	383	4,800

DPSD-3 10/5/00		
Compound	LOC (mg/kg)	Conc. (mg/kg)
Cadmium	1.70	3.0
Zinc	171	1,020

DPSD-4 (0-1') 10/5/00		
Compound	LOC (mg/kg)	Conc. (mg/kg)
Benz(a)anthracene	0.0317	0.59
Benzo(a)pyrene	0.0319	0.54
Benzo(b)fluoranthene	0.0272	0.99
Benzo(g,h,i)perylene	0.29	0.35
Benzo(k)fluoranthene	0.0272	0.32
Chrysene	0.0571	0.69
Fluoranthene	0.06423	1.3
Indeno(1,2,3-cd)pyrene	0.078	0.23
Phenanthrene	0.0419	0.49
Pyrene	0.053	1.1
Arsenic	16	40.1
Cadmium	1.70	6.2
Chromium	37.3	681
Lead	38.8	279
Mercury	0.249	1.9
Silver	1	23.1
Vanadium	72.4	84.5
Zinc	171	555

DPSW-4 10/5/00		
Compound	LOC (ug/L)	Conc. (ug/L)
Iron	1,790	1,800
Manganese	383	1,000

DPMW-1 (1.5-11.5') 1/3/01		
Compound	LOC (ug/L)	Conc. (ug/L)
Aluminum	200	760
Iron	300	13,500
Manganese	50	790

208SS-9 (0-0.5') 9/13/06			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	42.6

208SD-1		
Compound	LOC (ppm)	Conc. (ppm)
Arsenic	16.0	24.7
Cadmium	1.7	4.6
Chromium	37.3	142
Copper	28	122
Lead	38.8	63.9
Mercury	0.249	0.49
Silver	1.0	3.9
Zinc	171	341

208SD-4		
Compound	LOC (ppm)	Conc. (ppm)
Cadmium	1.7	2.6
Copper	28	46.2
Mercury	0.249	0.73
Silver	1.0	2.6

DPSS-1A (0-1') 10/5/00			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	11.4

208SS-8 (0-0.5') 9/13/06			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	15.4

208SS-6 (0-0.5') 9/13/06			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	14

DP-1S CHPPM-'97			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	57

DP-1W CHPPM-'97		
Compound	LOC (ug/L)	Conc. (ug/L)
Arsenic	3	12
Lead	5	42

DPSS-4A (0-1') 10/5/00			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	13.1

DPSS-2A (0-1') 10/5/00			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	13.5

DPSS-3A (0-1') 10/5/00			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	9.9

MW-12E (10.5-20.5') 1/3/01		
Compound	LOC (ug/L)	Conc. (ug/L)
Aluminum	200	500
Arsenic	3	16
Iron	300	2,300
Manganese	50	1,600

208SS-12 (0-0.5') 9/13/06			
Compound	LOC (mg/kg)NJ	LOC (mg/kg)EPA	Conc. (mg/kg)
Arsenic	19	1.6	9.4

208SD-5		
Compound	LOC (ppm)	Conc. (ppm)
Cadmium	1.7	7.4
Chromium	37.3	48.6
Copper	28	122
Lead	38.8	105
Mercury	0.249	1.9
Silver	1.0	4.6
Zinc	171	293

LEGEND

- RAILROAD
- TREE LINE
- FENCE
- TRANSFORMER (TR-732)
- BLAST WALL
- STORM SEWER (STS / OR / STS)
- SANITARY SEWER (SS / OR / SS)
- EARTH MOUND
- BUILDING (BLDG. NO.)
- FORMER BUILDING (BLDG. NO.)
- COVERED WALKWAY
- SWAMP
- WATER

EXISTING SAMPLING LOCATIONS

- MONITORING WELL
- SURFACE WATER/SEDIMENT
- SURFACE SOIL
- HAND AUGER SOIL SAMPLE GW SAMPLE COLLECTED W/ DISPOSABLE BAILER
- GEOPROBE SURFACE SOIL & GROUND-WATER SAMPLE

NOTE:
LOC EXCEEDENCES BELOW PICATINNY BACKGROUND LEVELS ARE NOT PRESENTED.

COMPOUND WAS NOT DETECTED IN DUPLICATE SAMPLE

DP-1W AND DP-2W WERE COLLECTED FROM THE LOCATIONS MARKED AS DP-1S AND DP-2S ON THE MAP.

SCALE
0 100 200 FEET

SOURCE NOTE:
FIGURE REPRODUCED FROM 25 SITES FOCUSED FEASIBILITY STUDY REPORT, SHAW ENVIRONMENTAL INC., AUGUST 2010 (DRAWING: MADE FROM "SHAW ENVIRONMENTAL, INC." DRAWING NO. 2-35, DATED 4/12/10)

UNITED STATES ARMY
PICATINNY ARSENAL, NEW JERSEY
NO FURTHER ACTION WITH MONITORING OF LAND USE PROPOSED PLAN FOR 21 SITES

PICA 208 DSERTS - FORMER DOG POUND LOC EXCEEDENCES

ARCADIS

FIGURE
23-24

CITY:SYRACUSE, NY DIV/GROUP:ENV/CAD DB:K.SARTORI PIC:T.E. TALELE PM:T. LLEWELLYN TM:K. PANHORST LYR:(Opt)ON=*;OFF=*REF* PAGESETUP: SYR-LB-PDF PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/6/2014 3:04 PM BY: FOX, AARON
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