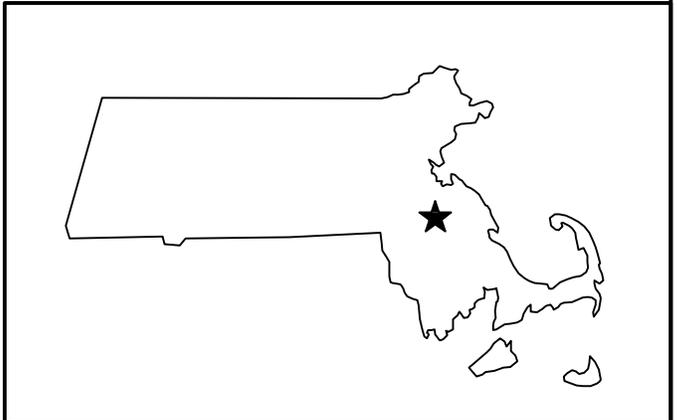
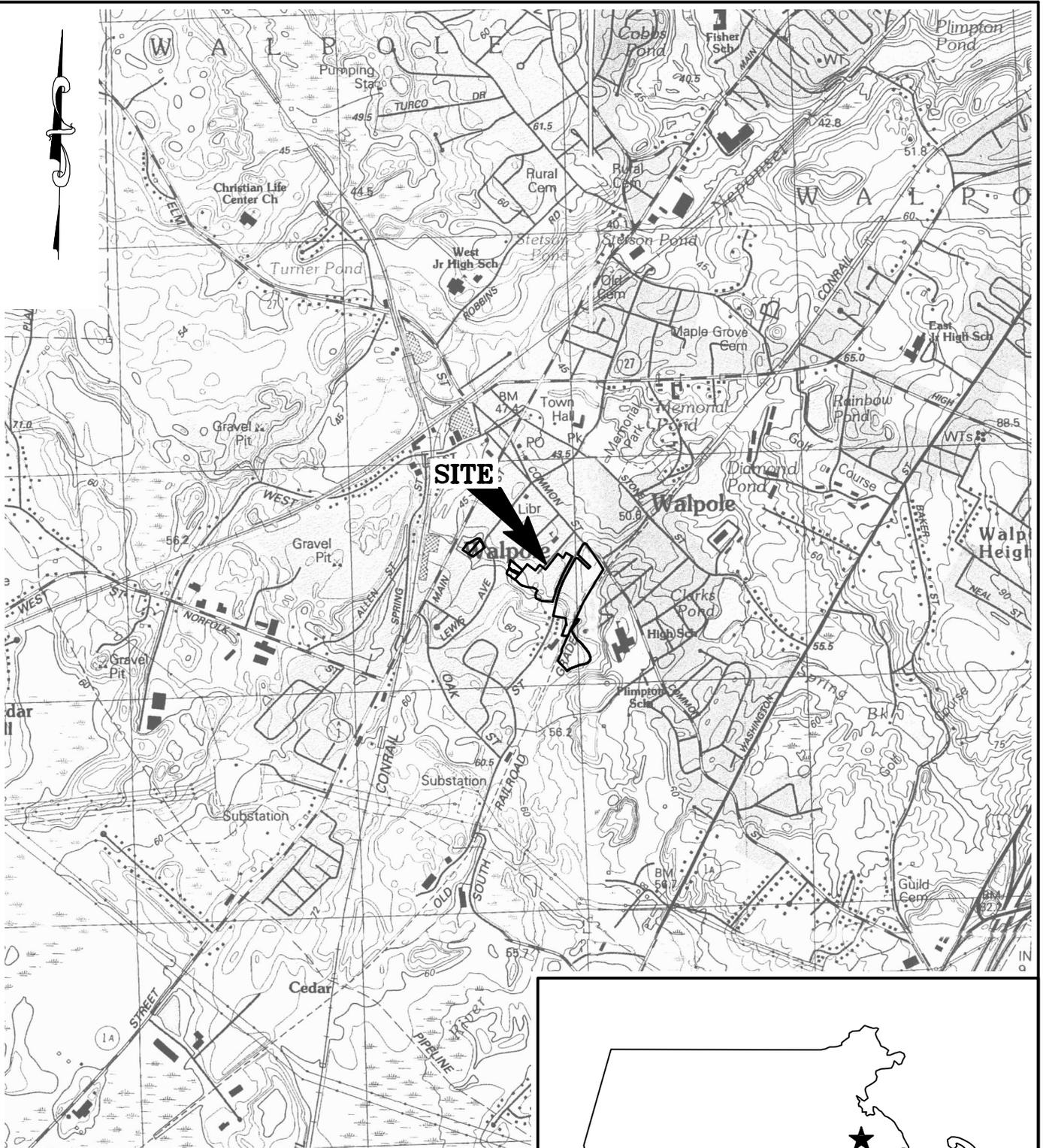


FIGURES



NOTES:

BASE MAP TAKEN FROM 7.5 MINUTE
 USGS QUADRANGLE MAP:
 MEDFIELD, MASSACHUSETTS (1987)
 NORWOOD, MASSACHUSETTS (1985)

**BLACKBURN & UNION PRIVILEGES
 SUPERFUND SITE
 WALPOLE, MASSACHUSETTS**

SHA
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Consulting Engineers & Scientists

LOCUS PLAN

SCALE: 1"=2000'	DRAWN BY: PGP	FILE NO. 2032
DATE: MAR 07	CHECKED BY: BAG	FIGURE NO.1

NOTES:

1. EARTHWORM AND CO-LOCATED SAMPLING LOCATIONS WERE ESTABLISHED BY SHA IN AUGUST 2003.
2. THE LOCATIONS OF THE EARTHWORM AND CO-LOCATED SOIL SAMPLES WERE SURVEYED BY SHA USING A TRIMBLE PATHFINDER PRO XRS GLOBAL POSITIONING SYSTEM SURVEY DEVICE. THE ACCURACY OF THESE LOCATIONS IS LIMITED BY THE MEASUREMENT USED.
3. REFER TO FIGURE 3 FOR ADDITIONAL NOTES AND LEGEND.

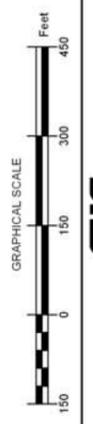
LEGEND

- EUA-1-7 EASTERN UPLAND AREA EARTHWORM AND CO-LOCATED SOIL SAMPLING LOCATION AND DESIGNATION
- FPW-1-4 FLOOD PLAIN EARTHWORM AND CO-LOCATED SOIL SAMPLING LOCATION AND DESIGNATION
- OP-2-2 ORLANDO PROPERTY EARTHWORM AND CO-LOCATED SOIL SAMPLING LOCATION AND DESIGNATION
- OSA-2-1 ON-SITE AREA EARTHWORM AND CO-LOCATED SOIL SAMPLING LOCATION AND DESIGNATION
- OSR-1-3 ON-SITE REFERENCE AREA EARTHWORM AND CO-LOCATED SOIL SAMPLING LOCATION AND DESIGNATION

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NO.	DATE	DESCRIPTION	BY



SHA
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DRAWN BY: SJR
 DESIGNED BY: PGP/SJR
 CHECKED BY: BAG
 REVIEWED BY: CLH/CAC
 PROJECT MGR: CMH
 PIC: PMS
 DATE: MAR 07

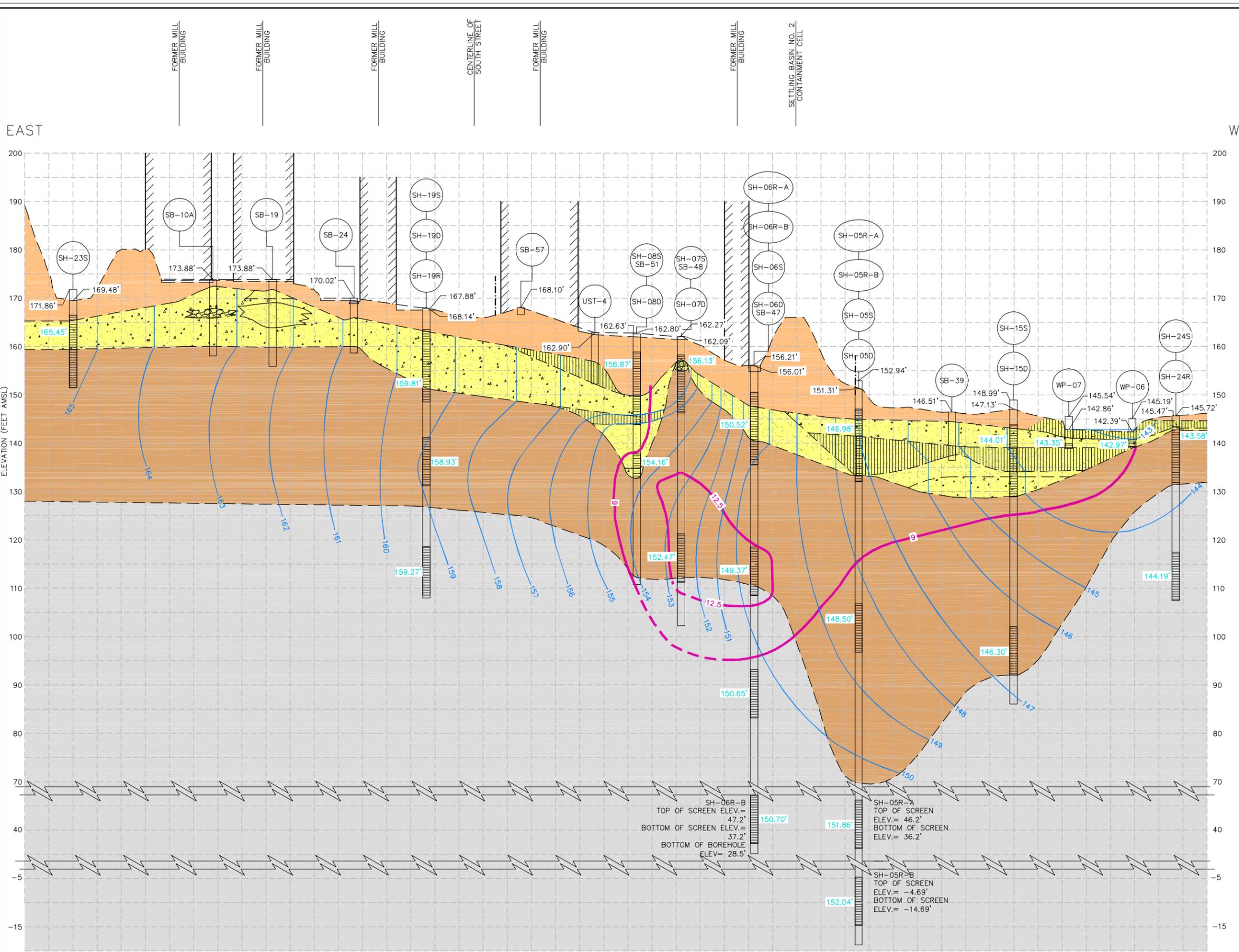
REMEDIAL INVESTIGATION REPORT
BLACKBURN & UNION PRIVILEGES SUPERFUND SITE
 WALPOLE, MASSACHUSETTS

EXPLORATION LOCATION PLAN - EARTHWORM AND CO-LOCATED SOIL SAMPLING LOCATIONS

PROJECT NUMBER:
 2032

FIGURE NUMBER:
 9

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NOTES:
 1. THE GROUND SURFACE ELEVATION OF BORINGS SB-19 AND SB-57 ARE ESTIMATED BASED ON THE SURVEYED GROUND ELEVATION OF THE NEAREST BORING.
 2. REFER TO FIGURE 11A FOR ADDITIONAL NOTES AND LEGEND.

LEGEND:

SITE STRATA

FILL MATERIALS

- SOIL FILL
- ICE-CONTACT SAND/SAND & GRAVEL
- SAND & SILT
- SAND
- SAND & GRAVEL
- COBBLES OR BOULDER

GLACIAL TILL

- GLACIAL TILL (UNDIFFERENTIATED)

BEDROCK

- BEDROCK (UNDIFFERENTIATED)

BREAK IN SEQUENTIAL ELEVATION NUMBERING TO ENABLE ALL ESSENTIAL DATA TO BE DISPLAYED

NO.	DATE	DESCRIPTION	BY

GRAPHICAL SCALE AS NOTED

SH&A
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 Consulting Engineers & Scientists

DRAWN BY: MKA/TWR
 DESIGNED BY: BAG/EAP
 CHECKED BY: RCW
 PROJECT MGR: CLH
 P.I.C: PMS
 DATE: MAR 07

REMEDIAL INVESTIGATION REPORT
 BLACKBURN & UNION PRIVILEGES SUPERFUND SITE
 WALPOLE, MASSACHUSETTS

HYDROGEOLOGIC PROFILE B-B'

PROJECT NUMBER: 2032
 FIGURE NUMBER: 11B

HYDROGEOLOGIC PROFILE B-B'

SCALE: 1"=120'(H), 1"=20'(V)

-03F DRAFT-

WORKSHEET: 03F
 DATE: 3/28/07

11B

FILE: G:\Users\mka\Documents\2032\11B\11B.dwg
 LAYOUT: 11B.dwg
 PLOT DATE: 3/28/07

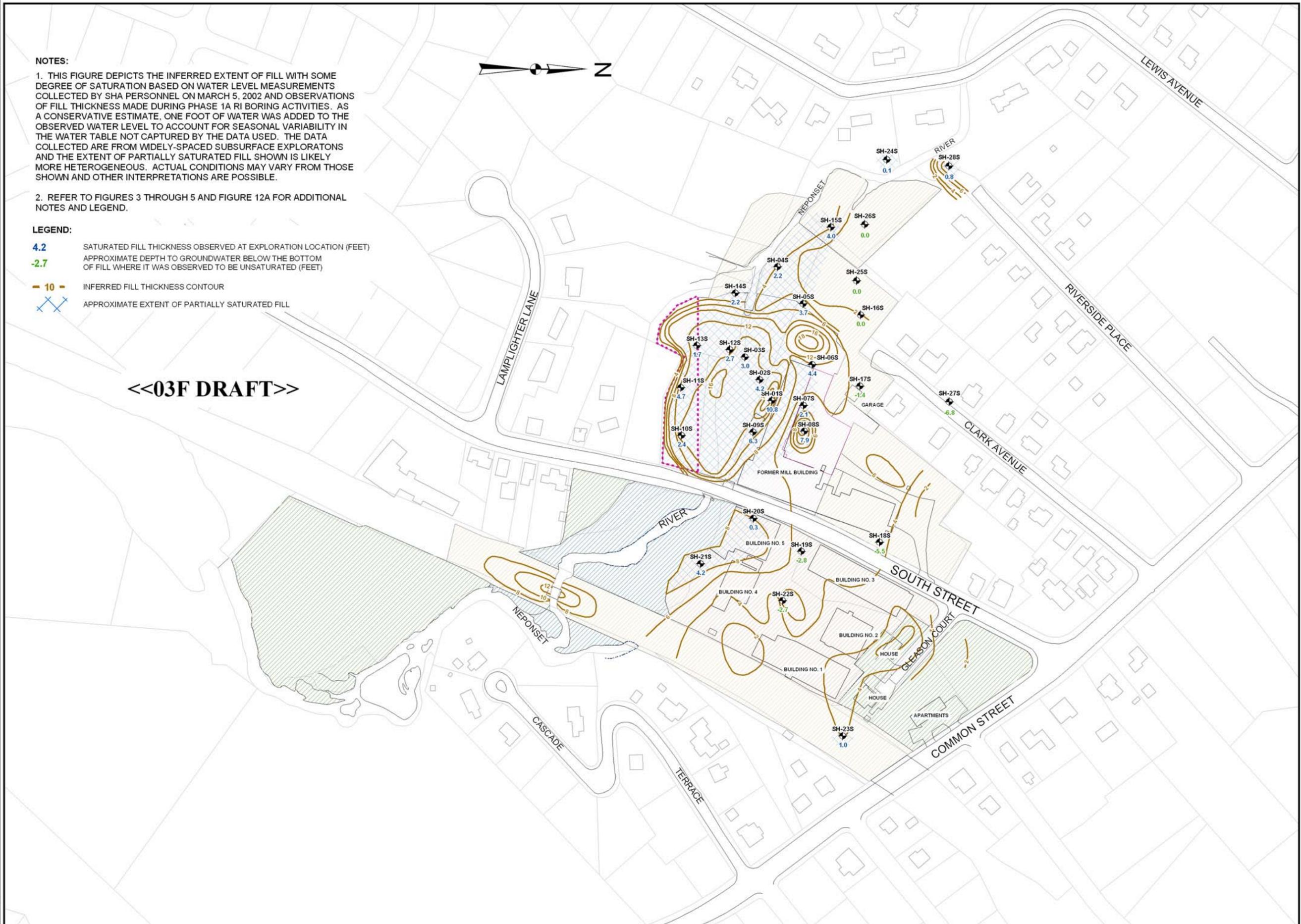
NOTES:

1. THIS FIGURE DEPICTS THE INFERRED EXTENT OF FILL WITH SOME DEGREE OF SATURATION BASED ON WATER LEVEL MEASUREMENTS COLLECTED BY SHA PERSONNEL ON MARCH 5, 2002 AND OBSERVATIONS OF FILL THICKNESS MADE DURING PHASE 1A RI BORING ACTIVITIES. AS A CONSERVATIVE ESTIMATE, ONE FOOT OF WATER WAS ADDED TO THE OBSERVED WATER LEVEL TO ACCOUNT FOR SEASONAL VARIABILITY IN THE WATER TABLE NOT CAPTURED BY THE DATA USED. THE DATA COLLECTED ARE FROM WIDELY-SPACED SUBSURFACE EXPLORATIONS AND THE EXTENT OF PARTIALLY SATURATED FILL SHOWN IS LIKELY MORE HETEROGENEOUS. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN AND OTHER INTERPRETATIONS ARE POSSIBLE.
2. REFER TO FIGURES 3 THROUGH 5 AND FIGURE 12A FOR ADDITIONAL NOTES AND LEGEND.

LEGEND:

- 4.2 SATURATED FILL THICKNESS OBSERVED AT EXPLORATION LOCATION (FEET)
- 2.7 APPROXIMATE DEPTH TO GROUNDWATER BELOW THE BOTTOM OF FILL WHERE IT WAS OBSERVED TO BE UNSATURATED (FEET)
- 10 - INFERRED FILL THICKNESS CONTOUR
- APPROXIMATE EXTENT OF PARTIALLY SATURATED FILL

<<03F DRAFT>>



REMEDIAL INVESTIGATION REPORT BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS		SATURATED FILL AREA PLAN	
PROJECT NUMBER	2032	FIG. NO.	12b
DRAWN BY: SURLIK DESIGNED BY: SURLIK CHECKED BY: BAGRCW REVIEWED BY: CLH PROJECT MGR: CLH		PIC: PMS DATE: MAR 03	
GRAPHICAL SCALE 		 Sanborn, Head & Associates, Inc. Consulting Engineers & Scientists	
NO.	DATE	DESCRIPTION	BY

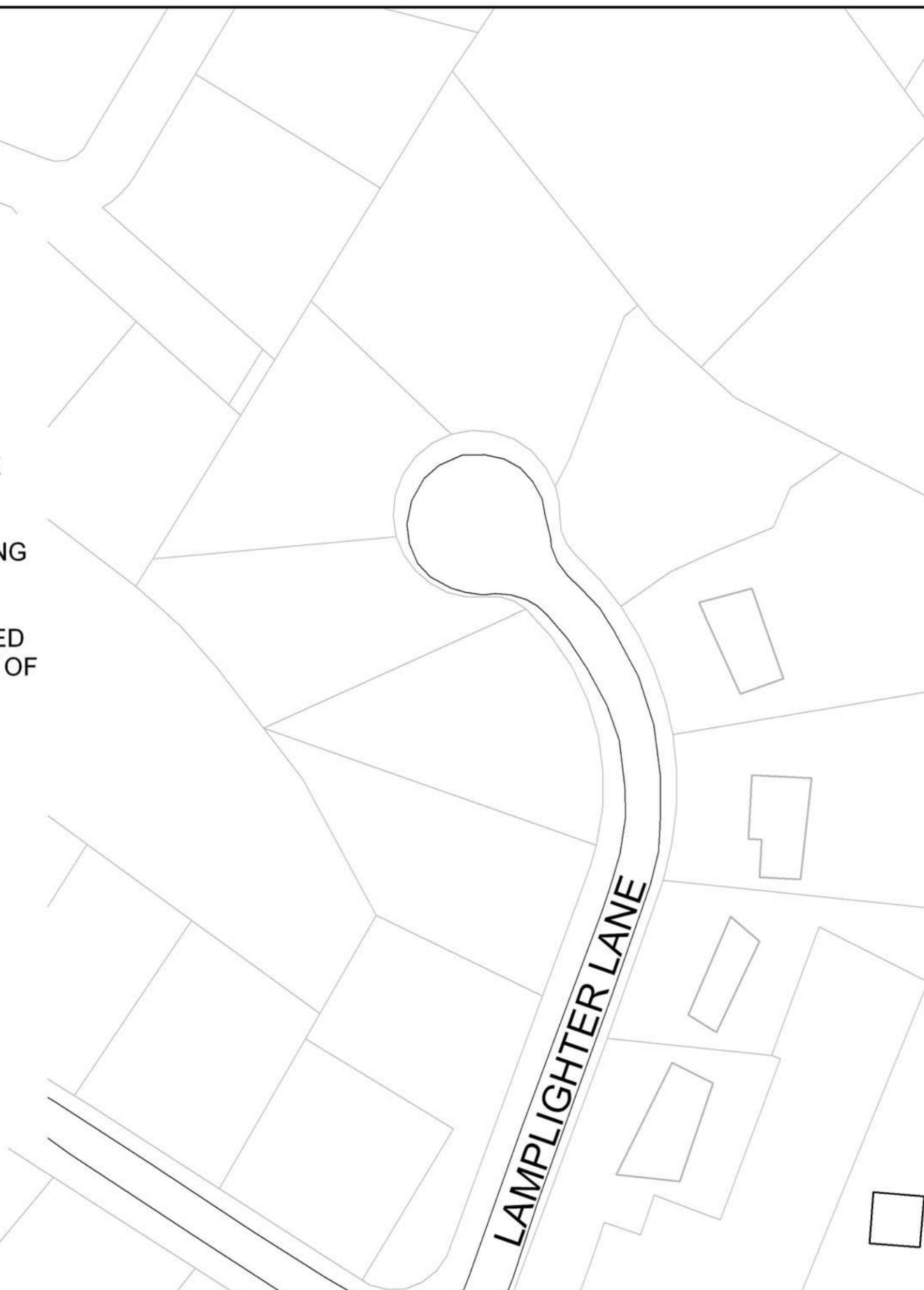


NOTES:

1. THE GROUNDWATER ELEVATION CONTOURS SHOWN ARE BASED ON GROUNDWATER LEVELS MEASURED BY SHA PERSONNEL ON NOVEMBER 17-18, 2003 .
2. THE GROUNDWATER ELEVATION FROM MONITORING WELL SH-21S WAS COLLECTED ON NOVEMBER 24, 2003.
3. GROUNDWATER ELEVATIONS FROM MONITORING WELL SH-15S AND WELL POINTS WP-03 AND WP-04 WERE IGNORED IN CONSTRUCTING THE GROUNDWATER ELEVATION CONTOURS AS THE OBSERVED GROUND WATER ELEVATION WAS INCONSISTENT WITH GROUNDWATER AND SURFACE WATER ELEVATIONS OBSERVED IN SURROUNDING MONITORING WELLS AND STAFF GAUGES.
4. SURFACE WATER ELEVATIONS WERE INADVERTENTLY NOT COLLECTED FROM STAFF GAUGES SG-104, SG-105 AND LOCATIONS DOWNGRAIENT OF SG-108 DURING THE NOVEMBER 17-18TH WATER LEVEL ROUND.
5. THE GROUNDWATER ELEVATION CONTOURS WERE DEVELOPED USING GENERALLY ACCEPTED HYDROGEOLOGIC PRACTICES AND ARE INTENDED TO DEPICT INFERRED TRENDS IN GROUNDWATER LEVELS CONSISTENT WITH AVAILABLE INFORMATION. VARIATIONS IN GROUNDWATER ELEVATIONS ARE EXPECTED TO OCCUR DUE TO CHANGES IN PRECIPITATION, TEMPERATIURE, AND OTHER FACTORS NOT EVIDENT AT THE TIME WATER LEVEL MEASUREMENTS WERE COLLECTED. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN AND OTHER INTERPRETATIONS ARE POSSIBLE.
6. FOR PRESENTATION PURPOSES, WATER LEVEL MEASUREMENTS HAVE BEEN ROUNDED TO THE NEAREST TENTH.
7. REFER TO FIGURES 3 AND 5 FOR ADDITIONAL NOTES AND LEGEND.

LEGEND:

- 143.6 GROUNDWATER ELEVATION MEASURED AT LOCATION ON NOVEMBER 17-18, 2003 (FEET AMSL)
- 144- GROUNDWATER ELEVATION CONTOUR (FEET AMSL)





NOTES:

1. THE GROUNDWATER ELEVATION CONTOURS SHOWN ARE BASED ON GROUNDWATER LEVELS MEASURED BY SHA PERSONNEL ON NOVEMBER 17 AND 18, 2003.
2. THE GROUNDWATER ELEVATION CONTOURS WERE DEVELOPED USING GENERALLY ACCEPTED HYDROGEOLOGIC PRACTICES AND ARE INTENDED TO DEPICT INFERRED TRENDS IN GROUNDWATER LEVELS CONSISTENT WITH AVAILABLE INFORMATION. VARIATIONS IN GROUNDWATER ELEVATIONS ARE EXPECTED TO OCCUR DUE TO CHANGES IN PRECIPITATION, TEMPERATURE, AND OTHER FACTORS NOT EVIDENT AT THE TIME WATER LEVEL MEASUREMENTS WERE COLLECTED. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN AND OTHER INTERPRETATIONS ARE POSSIBLE.
3. THE PRESENCE OF HIGH PH FLUIDS (PH GREATER THAN 12.5 S.U.), WHICH ARE CHARACTERIZED BY HIGHER DENSITIES THAN AMBIENT GROUNDWATER, MAY HAVE EFFECTIVELY LOWERED THE OBSERVED GROUNDWATER LEVELS IN MONITORING WELLS SH-01D, SH-02D, SH-06D, AND SH-07D. LIMITED DENSITY DATA ARE AVAILABLE FOR THESE FLUIDS; HOWEVER, IF A DENSITY CORRECTION WERE APPLIED TO THE GROUNDWATER LEVELS IN THESE WELLS, IT IS LIKELY THAT THE GROUNDWATER LEVELS WOULD BE HIGHER THAN THOSE DEPICTED ON THIS FIGURE. THEREFORE, THE GROUNDWATER LEVELS OBSERVED IN THESE WELLS AND THE GROUNDWATER CONTOURS DEPICTED ON THIS FIGURE SHOULD BE CONSIDERED APPROXIMATE ONLY. REFER TO THE TEXT OF THE RI REPORT FOR FURTHER DISCUSSION REGARDING THIS MATTER.
4. FOR PRESENTATION PURPOSES, WATER LEVEL MEASUREMENTS HAVE BEEN ROUNDED TO THE NEAREST TENTH.
5. REFER TO FIGURES 3 AND 5 FOR ADDITIONAL NOTES AND LEGEND.

LEGEND:

153.3

GROUNDWATER ELEVATION MEASURED AT LOCATION ON NOVEMBER 17, 18, 2003 (FEET AMSL)

LAMPLIGHTER LANE





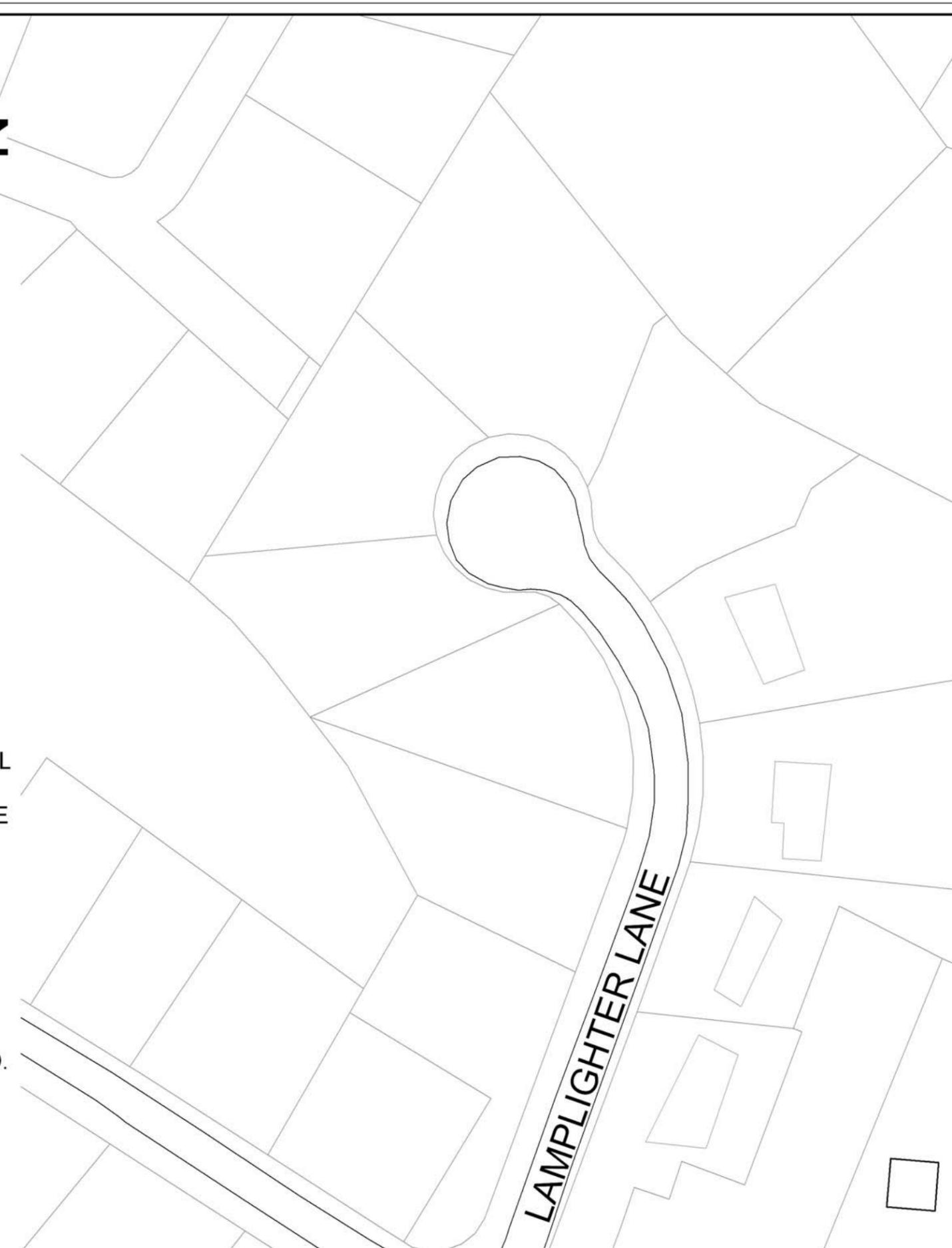
NOTES:

1. THE GROUNDWATER ELEVATION CONTOURS SHOWN ARE BASED ON GROUNDWATER LEVELS MEASURED BY SHA PERSONNEL ON NOVEMBER 17 AND 18, 2003.
2. THE GROUNDWATER ELEVATION CONTOURS WERE DEVELOPED USING GENERALLY ACCEPTED HYDROGEOLOGIC PRACTICES AND ARE INTENDED TO DEPICT INFERRED TRENDS IN GROUNDWATER LEVELS CONSISTENT WITH AVAILABLE INFORMATION. VARIATIONS IN GROUNDWATER ELEVATIONS ARE EXPECTED TO OCCUR DUE TO CHANGES IN PRECIPITATION, TEMPERATURE, AND OTHER FACTORS NOT EVIDENT AT THE TIME WATER LEVEL MEASUREMENTS WERE COLLECTED. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN AND OTHER INTERPRETATIONS ARE POSSIBLE.
3. THE PRESENCE OF HIGH PH FLUIDS (PH GREATER THAN 12.5 S.U.), WHICH ARE CHARACTERIZED BY HIGHER DENSITIES THAN AMBIENT GROUNDWATER, MAY HAVE EFFECTIVELY LOWERED THE OBSERVED GROUNDWATER LEVEL IN MONITORING WELL SH-01R. LIMITED DENSITY DATA ARE AVAILABLE FOR THESE FLUIDS; HOWEVER, IF A DENSITY CORRECTION WERE APPLIED TO THE GROUNDWATER LEVEL IN THIS WELL, IT IS LIKELY THAT THE GROUNDWATER LEVEL WOULD BE HIGHER THAN THAT DEPICTED ON THIS FIGURE. THEREFORE, THE GROUNDWATER LEVEL OBSERVED IN THIS WELL AND THE GROUNDWATER CONTOURS DEPICTED ON THIS FIGURE SHOULD BE CONSIDERED APPROXIMATE ONLY. REFER TO THE TEXT OF THE RI REPORT FOR FURTHER DISCUSSION REGARDING THIS MATTER.
4. FOR PRESENTATION PURPOSES, WATER LEVEL MEASUREMENTS HAVE BEEN ROUNDED TO THE NEAREST TENTH.
5. REFER TO FIGURES 3 AND 5 FOR ADDITIONAL NOTES AND LEGEND.

LEGEND:

151.42 GROUNDWATER ELEVATION MEASURED AT LOCATION ON NOVEMBER 17-18, 2003 (FEET AMSL)

150 GROUNDWATER ELEVATION CONTOUR (FEET AMSL)





NOTES:

1. THE GROUNDWATER ELEVATION CONTOURS SHOWN ARE BASED ON GROUNDWATER LEVELS MEASURED BY SHA PERSONNEL ON MAY 25-26, 2004 .
2. THE GROUNDWATER ELEVATION CONTOURS WERE DEVELOPED USING GENERALLY ACCEPTED HYDROGEOLOGIC PRACTICES AND ARE INTENDED TO DEPICT INFERRED TRENDS IN GROUNDWATER LEVELS CONSISTENT WITH AVAILABLE INFORMATION. VARIATIONS IN GROUNDWATER ELEVATIONS ARE EXPECTED TO OCCUR DUE TO CHANGES IN PRECIPITATION, TEMPERATIURE, AND OTHER FACTORS NOT EVIDENT AT THE TIME WATER LEVEL MEASUREMENTS WERE COLLECTED. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN AND OTHER INTERPRETATIONS ARE POSSIBLE.
3. A SURFACE WATER ELEVATION WAS INADVERTANTLY NOT COLLECTED FROM STAFF GAUGE SG-103
4. SURFACE WATER ELEVATIONS FROM STAFF GAUGES SG-107 AND SG-108 WERE IGNORED IN CONSTRUCTING THE GROUNDWATER ELEVATION CONTOURS AS THE OBSERVED ELEVATIONS WERE INCONSISTENT WITH GROUNDWATER AND SURFACE WATER ELEVATIONS FROM SURROUNDING MONITORING WELLS AND STAFF GAUGES.
5. FOR PRESENTATION PURPOSES, WATER LEVEL MEASUREMENTS HAVE BEEN ROUNDED TO THE NEAREST TENTH.
6. REFER TO FIGURES 3 AND 5 FOR ADDITIONAL NOTES AND LEGEND.

LEGEND:

143.6

GROUNDWATER ELEVATION MEASURED AT LOCATION ON MAY 25-26, 2004 (FEET AMSL)

-144-

GROUNDWATER ELEVATION CONTOUR (FEET AMSL)
DASHED WHERE INFERRED

LAMPLIGHTER LANE



NOTES:

1. THE GROUNDWATER ELEVATION CONTOURS SHOWN ARE BASED ON GROUNDWATER LEVELS MEASURED BY SHA PERSONNEL ON MAY 25-26, 2004.
2. THE GROUNDWATER ELEVATION CONTOURS WERE DEVELOPED USING GENERALLY ACCEPTED HYDROGEOLOGIC PRACTICES AND ARE INTENDED TO DEPICT INFERRED TRENDS IN GROUNDWATER LEVELS CONSISTENT WITH AVAILABLE INFORMATION. VARIATIONS IN GROUNDWATER ELEVATIONS ARE EXPECTED TO OCCUR DUE TO CHANGES IN PRECIPITATION, TEMPERATIURE, AND OTHER FACTORS NOT EVIDENT AT THE TIME WATER LEVEL MEASUREMENTS WERE COLLECTED. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN AND OTHER INTERPRETATIONS ARE POSSIBLE.
3. THE PRESENCE OF HIGH PH FLUIDS (PH GREATER THAN 12.5 S.U.), WHICH ARE CHARACTERIZED BY HIGHER DENSITIES THAN AMBIENT GROUNDWATER, MAY HAVE EFFECTIVELY LOWERED THE OBSERVED GROUNDWATER LEVELS IN MONITORING WELLS SH-01D, SH-02D, SH-06D, AND SH-07D. LIMITED DENSITY DATA ARE AVAILABLE FOR THESE FLUIDS; HOWEVER, IF A DENSITY CORRECTION WERE APPLIED TO THE GROUNDWATER LEVELS IN THESE WELLS, IT IS LIKELY THAT THE GROUNDWATER LEVELS WOULD BE HIGHER THAN THOSE DEPICTED ON THIS FIGURE. THEREFORE, THE GROUNDWATER LEVELS OBSERVED IN THESE WELLS AND THE GROUNDWATER CONTOURS DEPICTED ON THIS FIGURE SHOULD BE CONSIDERED APPROXIMATE ONLY. REFER TO THE TEXT OF THE RI REPORT FOR FURTHER DISCUSSION REGARDING THIS MATTER.
4. FOR PRESENTATION PURPOSES, WATER LEVEL MEASUREMENTS HAVE BEEN ROUNDED TO THE NEAREST TENTH.
5. REFER TO FIGURES 3 AND 5 FOR ADDITIONAL NOTES AND LEGEND.

LEGEND:





NOTES:

1. THE GROUNDWATER ELEVATION CONTOURS SHOWN ARE BASED ON GROUNDWATER LEVELS MEASURED BY SHA PERSONNEL ON MAY 25-26, 2004.

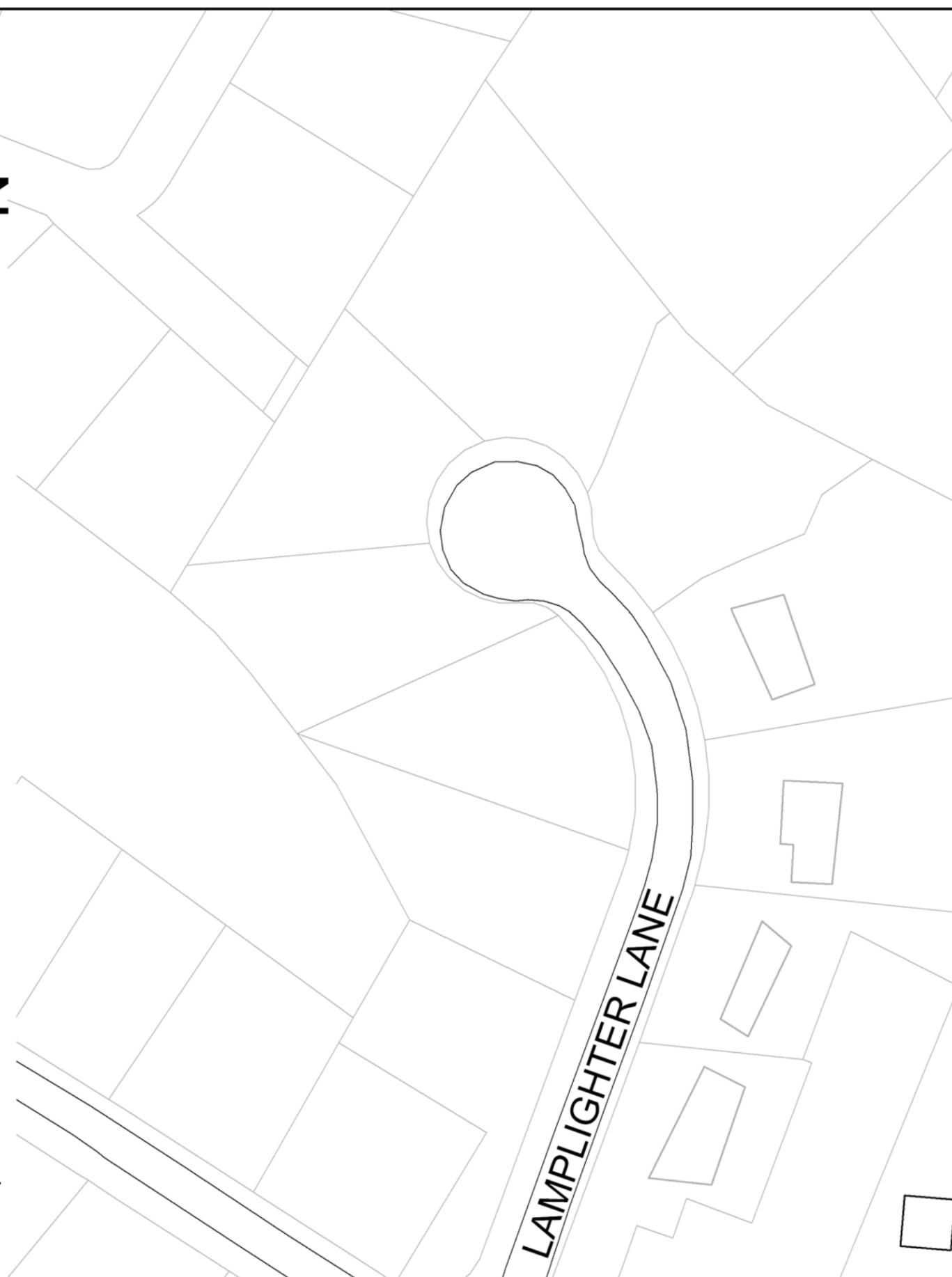
2. THE GROUNDWATER ELEVATION CONTOURS WERE DEVELOPED USING GENERALLY ACCEPTED HYDROGEOLOGIC PRACTICES AND ARE INTENDED TO DEPICT INFERRED TRENDS IN GROUNDWATER LEVELS CONSISTENT WITH AVAILABLE INFORMATION. VARIATIONS IN GROUNDWATER ELEVATIONS ARE EXPECTED TO OCCUR DUE TO CHANGES IN PRECIPITATION, TEMPERATURE, AND OTHER FACTORS NOT EVIDENT AT THE TIME WATER LEVEL MEASUREMENTS WERE COLLECTED. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN AND OTHER INTERPRETATIONS ARE POSSIBLE.

3. THE PRESENCE OF HIGH PH FLUIDS (PH GREATER THAN 12.5 S.U.), WHICH ARE CHARACTERIZED BY HIGHER DENSITIES THAN AMBIENT GROUNDWATER, MAY HAVE EFFECTIVELY LOWERED THE OBSERVED GROUNDWATER LEVEL IN MONITORING WELL SH-01R. LIMITED DENSITY DATA ARE AVAILABLE FOR THESE FLUIDS; HOWEVER, IF A DENSITY CORRECTIONS WERE APPLIED TO THE GROUNDWATER LEVEL IN THIS WELL, IT IS LIKELY THAT THE GROUNDWATER LEVEL WOULD BE HIGHER THAN THAT DEPICTED ON THIS FIGURE. THEREFORE, THE GROUNDWATER LEVEL OBSERVED IN THIS WELL AND THE GROUNDWATER CONTOURS DEPICTED ON THIS FIGURE SHOULD BE CONSIDERED APPROXIMATE ONLY. REFER TO THE TEXT OF THE RI REPORT FOR FURTHER DISCUSSION REGARDING THIS MATTER.

4. FOR PRESENTATION PURPOSES, WATER LEVEL MEASUREMENTS HAVE BEEN ROUNDED TO THE NEAREST TENTH.

5. REFER TO FIGURES 3 AND 5 FOR ADDITIONAL NOTES AND LEGEND.

LEGEND:



NOTES:

1. THE DISTRIBUTION OF CHROMIUM IN UPPER SOILS (0 TO 1 FOOT BELOW THE GROUND SURFACE) IS BASED ON SAMPLES COLLECTED BY SHA PERSONNEL BETWEEN FEBRUARY 21 AND JULY 23, 2001. SAMPLES WERE ANALYZED BY WOODS HOLE GROUP ENVIRONMENTAL LABORATORY OF RAYNHAM, MASSACHUSETTS FOR METALS, INCLUDING CHROMIUM USING UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) METHOD 6010B/6020.
2. REFER TO FIGURES 4 THROUGH 7 FOR ADDITIONAL NOTES AND LEGEND.

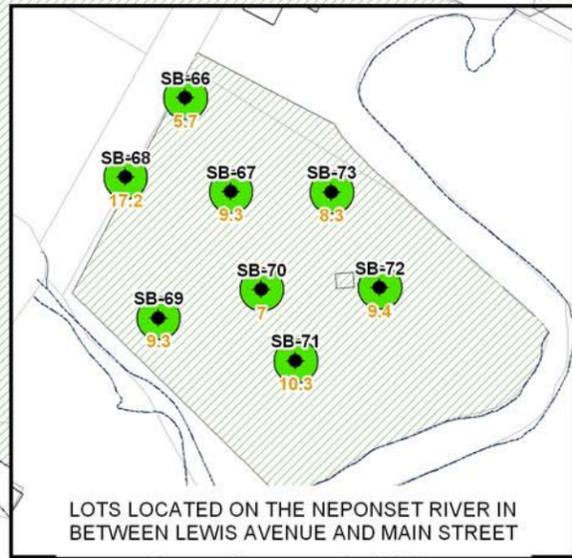
LEGEND:

- SB-01**  SOIL BORING LOCATION / DESIGNATION
-  8.6 DETECTED CONCENTRATION OF TOTAL CHROMIUM (MG/KG)
-  ND NOT DETECTED IN SAMPLE ABOVE THE ANALYTICAL REPORTING LIMIT

EXCEEDANCE INDICES

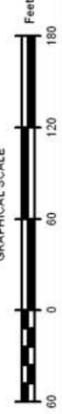
-  SOIL SAMPLE LOCATION WHERE DETECTED CONCENTRATION OF TOTAL CHROMIUM EXCEEDS USEPA REGION IX PRG FOR RESIDENTIAL SOIL FOR HEXAVALENT CHROMIUM OF 22 MG/KG
-  SOIL SAMPLE LOCATION WHERE DETECTED CONCENTRATION OF TOTAL CHROMIUM EXCEEDS MINIMUM ECOLOGICAL STANDARD FOR HEXAVALENT CHROMIUM OF 0.4 MG/KG
-  SOIL SAMPLE LOCATION WHERE DETECTED CONCENTRATION OF TOTAL CHROMIUM EXCEEDS THE MCP METHOD 2 S-1 SOIL STANDARD FOR DIRECT CONTACT EXPOSURE FOR HEXAVALENT CHROMIUM OF 1,000 MG/KG

<<03F DRAFT>>



LOTS LOCATED ON THE NEPONSET RIVER IN BETWEEN LEWIS AVENUE AND MAIN STREET

INSERT A

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DRAWN BY: SURLIK DESIGNED BY: SURLIK CHECKED BY: BAG REVIEWED BY: CLYCAC PROJECT MGR: CLH PIC: PMS DATE: MAR 07	NO. DATE DESCRIPTION	
REMEDIAL INVESTIGATION REPORT BLACKBURN & UNION PRIVILEGES SUPERFUND SITE WALPOLE, MASSACHUSETTS		
DISTRIBUTION OF CHROMIUM IN UPPER SOILS		
PROJECT NUMBER: 2032 FIGURE NUMBER: 18		