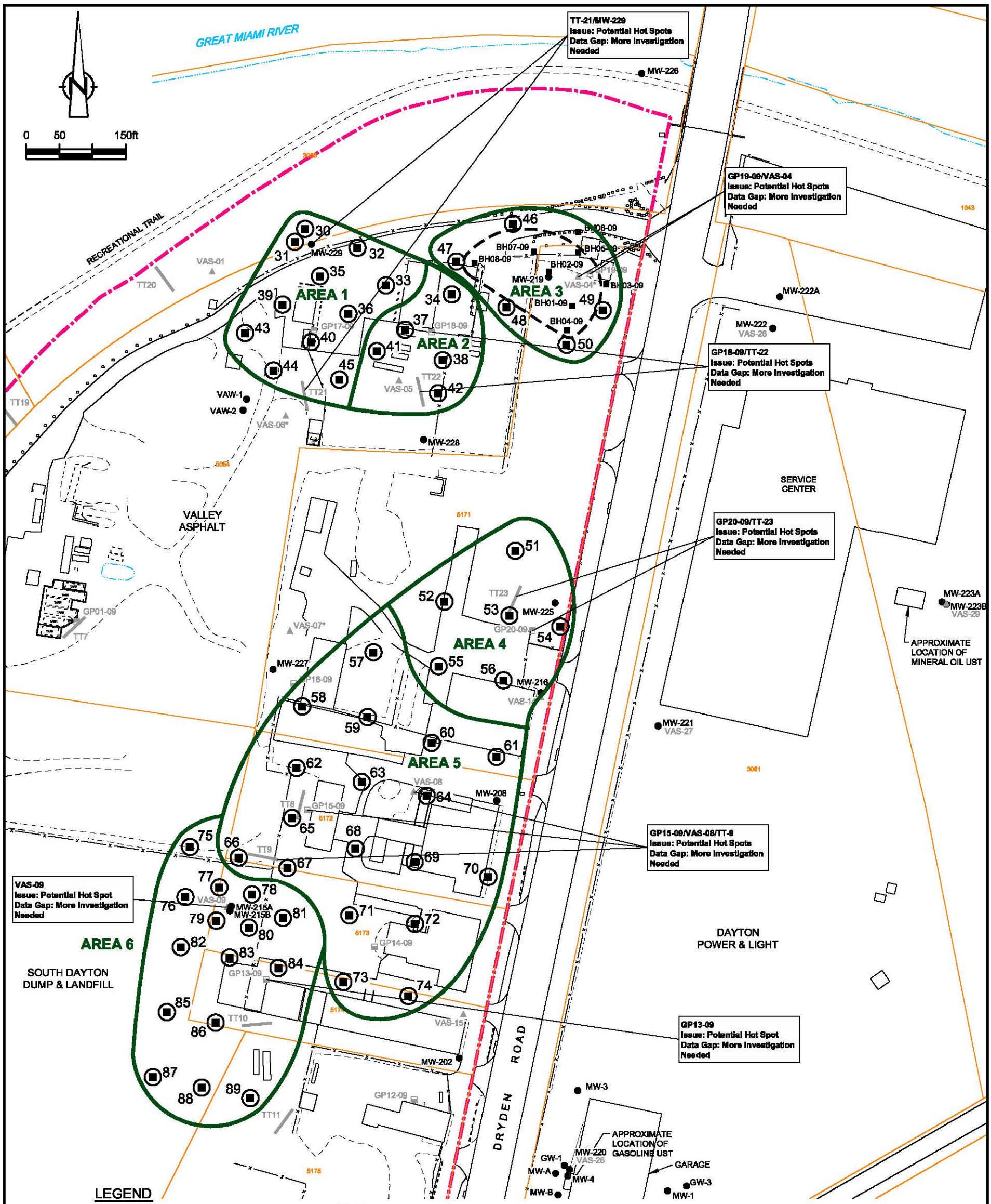
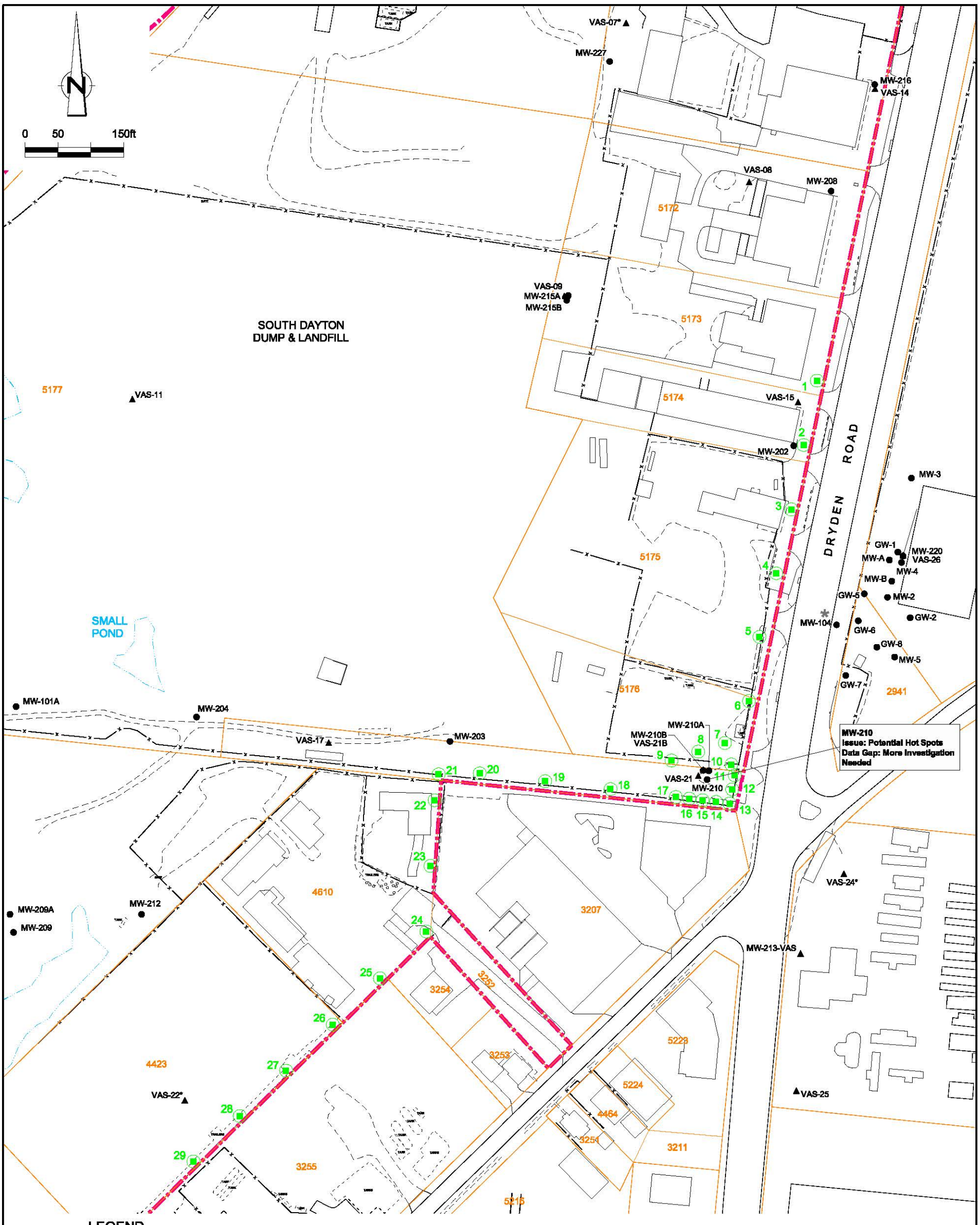


figure 1

PROPOSED PHASE 1A OU1 GROUNDWATER INVESTIGATIVE LOCATIONS
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

38443-83(PRES026)GN-WA001 JUN 4/2013



LEGEND

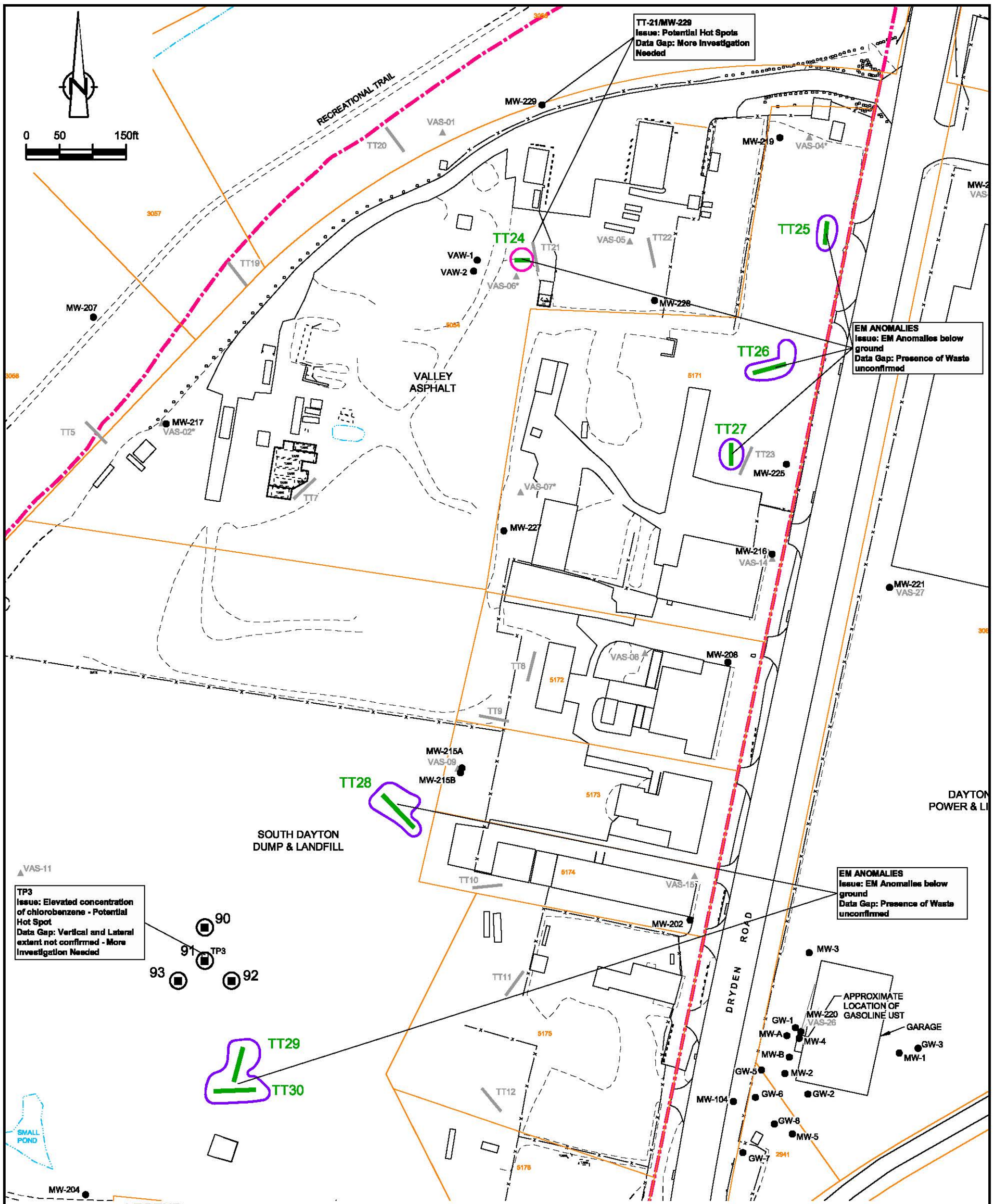
- APPROXIMATE SITE BOUNDARY
- EDGE OF WATER
- PARCEL BOUNDARY
- 3696 PARCEL NUMBER
- MW-206 ● UPPER AQUIFER MONITORING WELL LOCATION
- VAS-01 ▲ VERTICAL AQUIFER SAMPLING LOCATION
- * VAS LOCATION COMPLETED TO 70 FEET BELOW GROUND SURFACE OR LESS
- 1 PROPOSED GROUNDWATER SAMPLING LOCATION

figure 2

PROPOSED MW-210 GROUNDWATER INVESTIGATIVE LOCATIONS
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

38443-83(PRES026)GN-WA002 JUN 3/2013



LEGEND

- APPROXIMATE SITE BOUNDARY
- EDGE OF WATER
- PARCEL BOUNDARY
- MW-206 ● MONITORING WELL LOCATION
- TT1 — TEST TRENCH LOCATION
- VAS01 ▲ VERTICAL AQUIFER SAMPLING LOCATION
- * VAS LOCATION COMPLETED TO 70 FEET BELOW GROUND SURFACE OR LESS
- TP3 □ TEST PIT LOCATION
- PROPOSED TEST PIT LOCATION
- PROPOSED PHASE 1A GEOPROBE INVESTIGATIVE LOCATION
- TOTAL FIELD MAGNETIC ANOMALY
- EM61 METAL DETECTION ANOMALY
- PROPOSED TEST TRENCH LOCATION

figure 3

PROPOSED PHASE 1A TEST PIT/TRENCH LOCATIONS SOUTH DAYTON DUMP AND LANDFILL SITE

Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

38443-83(PRES026)GN-WA003 JUN 5/2013

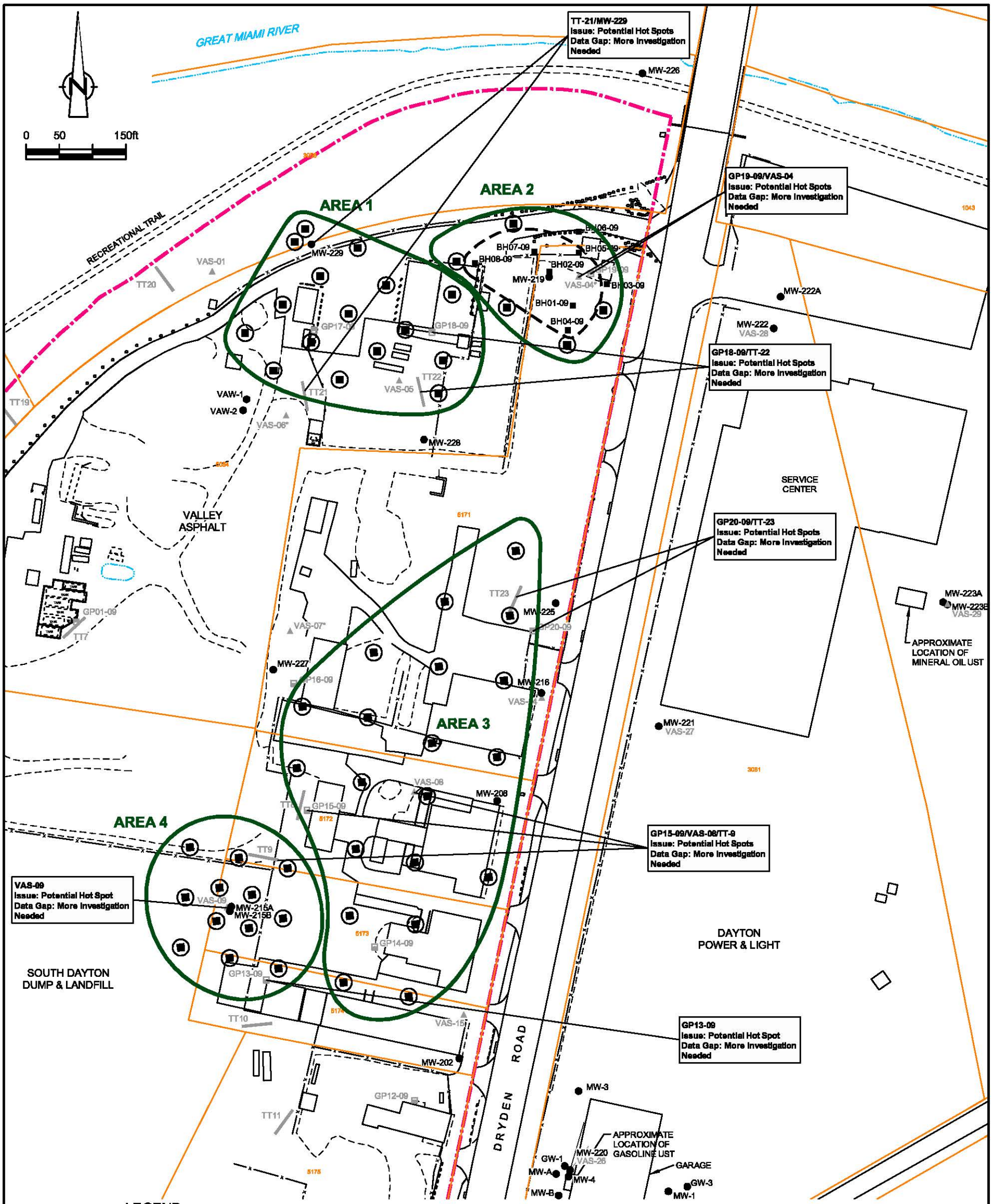
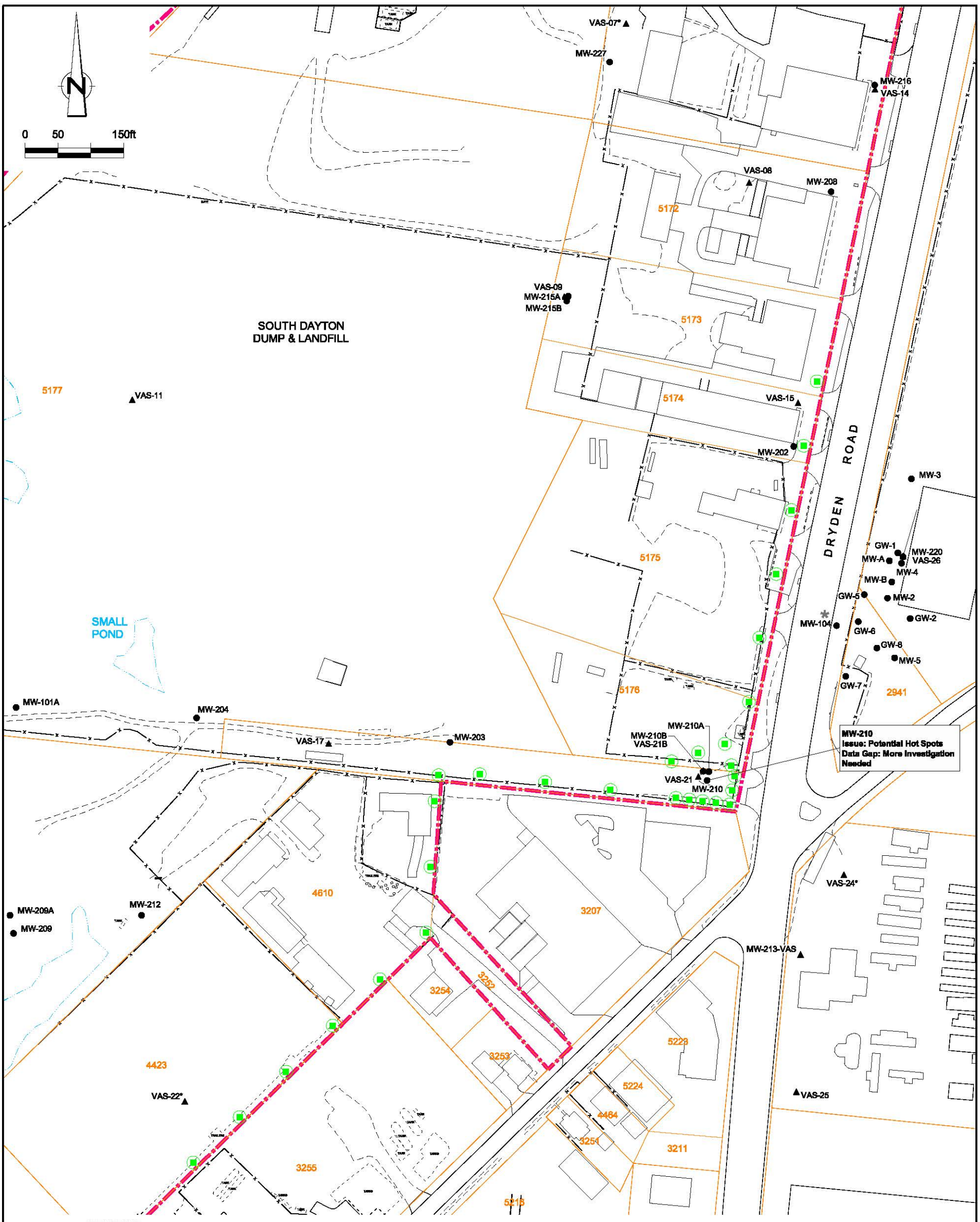


figure 1

PROPOSED PHASE 1A GROUNDWATER INVESTIGATIVE LOCATIONS
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

38443-89(PATT004)GN-WA007 MAR 5/2013



LEGEND

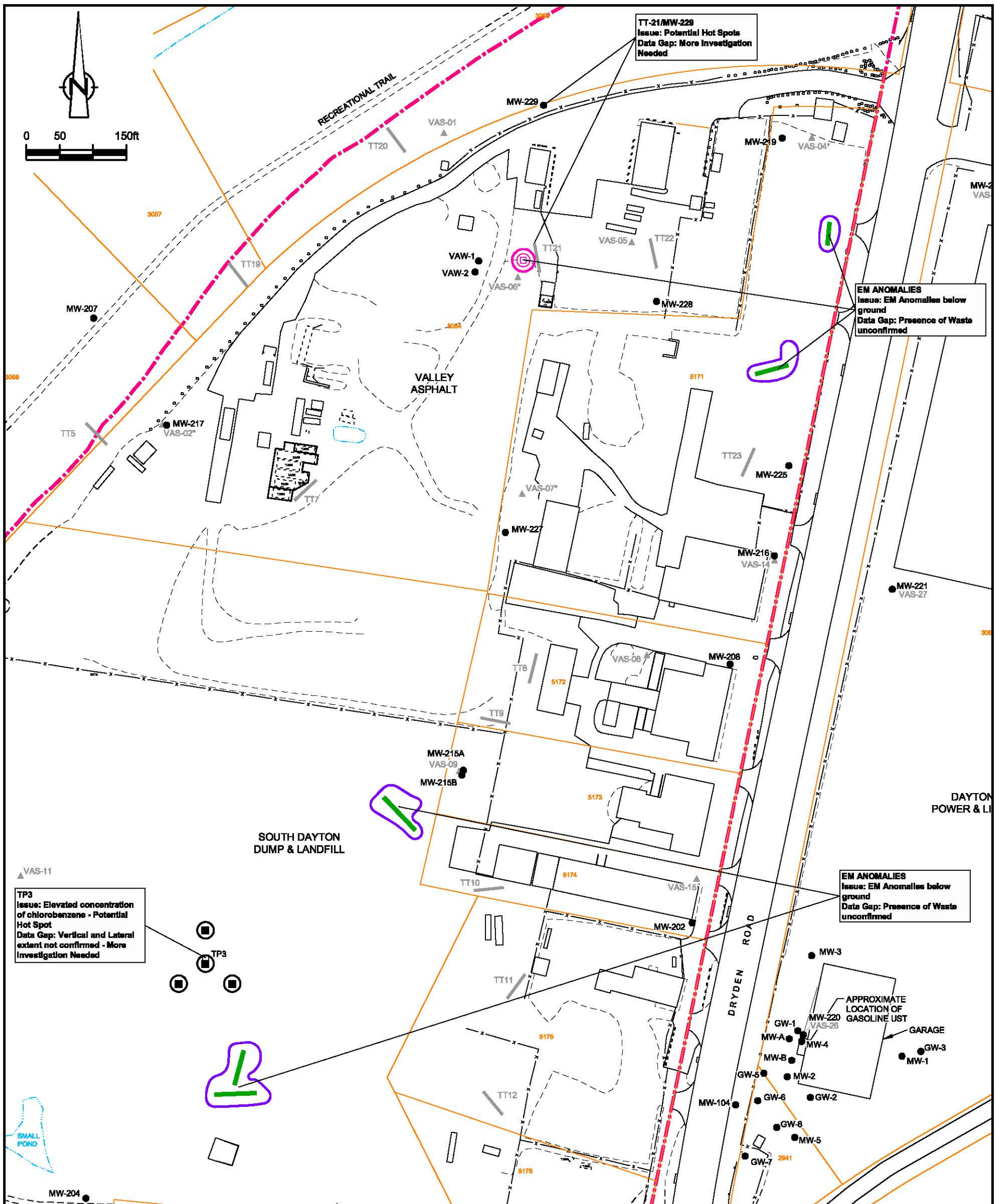
- APPROXIMATE SITE BOUNDARY
- EDGE OF WATER
- PARCEL BOUNDARY
- 3886 PARCEL NUMBER
- MW-206 ● UPPER AQUIFER MONITORING WELL LOCATION
- VAS-01 ▲ VERTICAL AQUIFER SAMPLING LOCATION
- * VAS LOCATION COMPLETED TO 70 FEET BELOW GROUND SURFACE OR LESS
- PROPOSED GROUNDWATER SAMPLING LOCATION

figure 2

PROPOSED MW-210 GROUNDWATER INVESTIGATIVE LOCATIONS
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

38443-89(PATT004)GN-WA008 MAR 1/2013



LEGEND

- APPROXIMATE SITE BOUNDARY
- EDGE OF WATER
- PARCEL BOUNDARY
- MW-206 ● MONITORING WELL LOCATION
- TT1 — TEST TRENCH LOCATION
- VAS01 ▲ VERTICAL AQUIFER SAMPLING LOCATION
- * VAS LOCATION COMPLETED TO 70 FEET BELOW GROUND SURFACE OR LESS
- TP3 □ TEST PIT LOCATION
- PROPOSED TEST PIT LOCATION
- PROPOSED PHASE 1A GEOPROBE INVESTIGATIVE LOCATION
- TOTAL FIELD MAGNETIC ANOMALY
- EM61 METAL DETECTION ANOMALY
- PROPOSED TEST TRENCH LOCATION

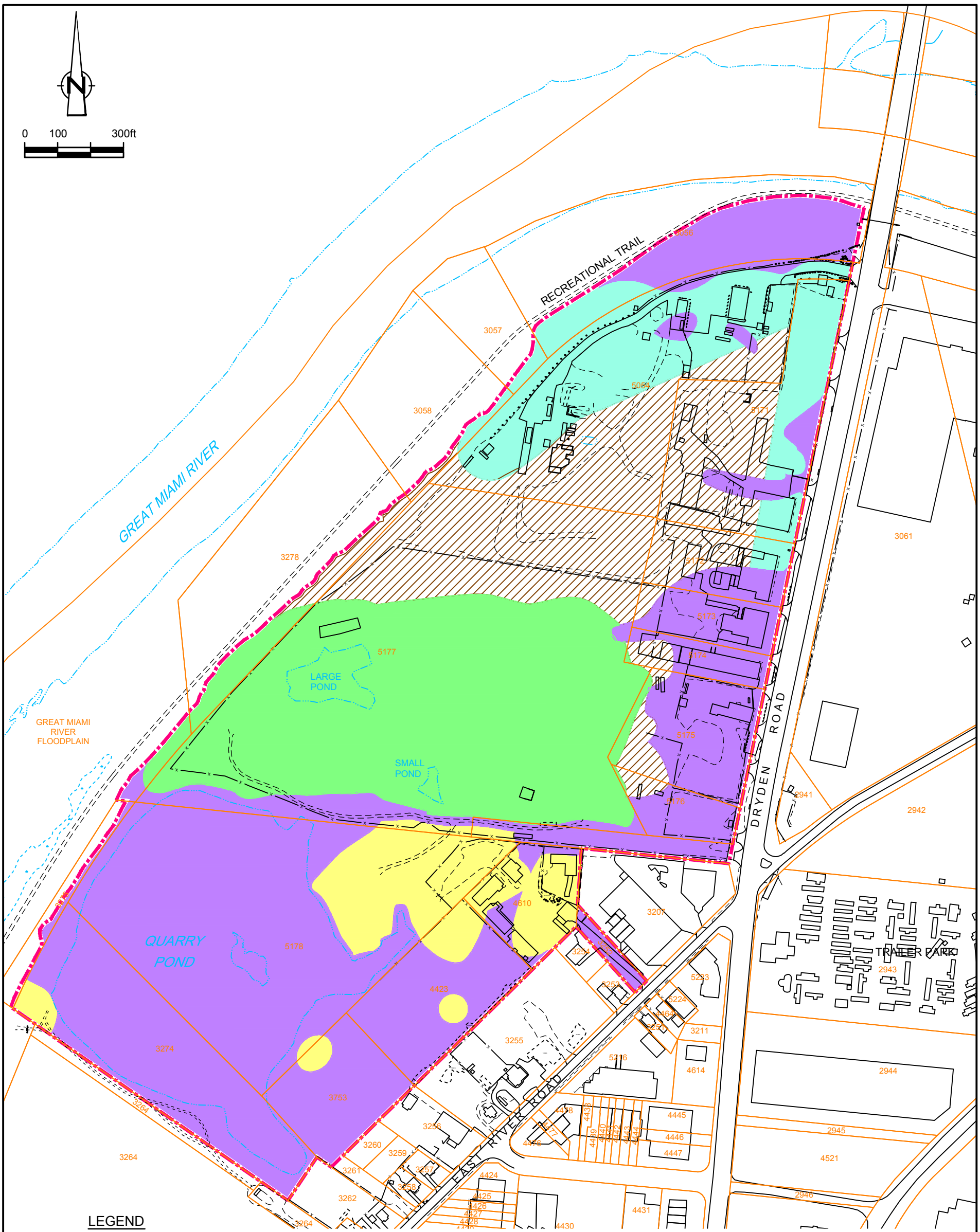
figure 3

PROPOSED PHASE 1A TEST PIT/TRENCH LOCATIONS SOUTH DAYTON DUMP AND LANDFILL SITE

Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

38443-89(PATT004)GN-WA009 MAR 1/2013



LEGEND

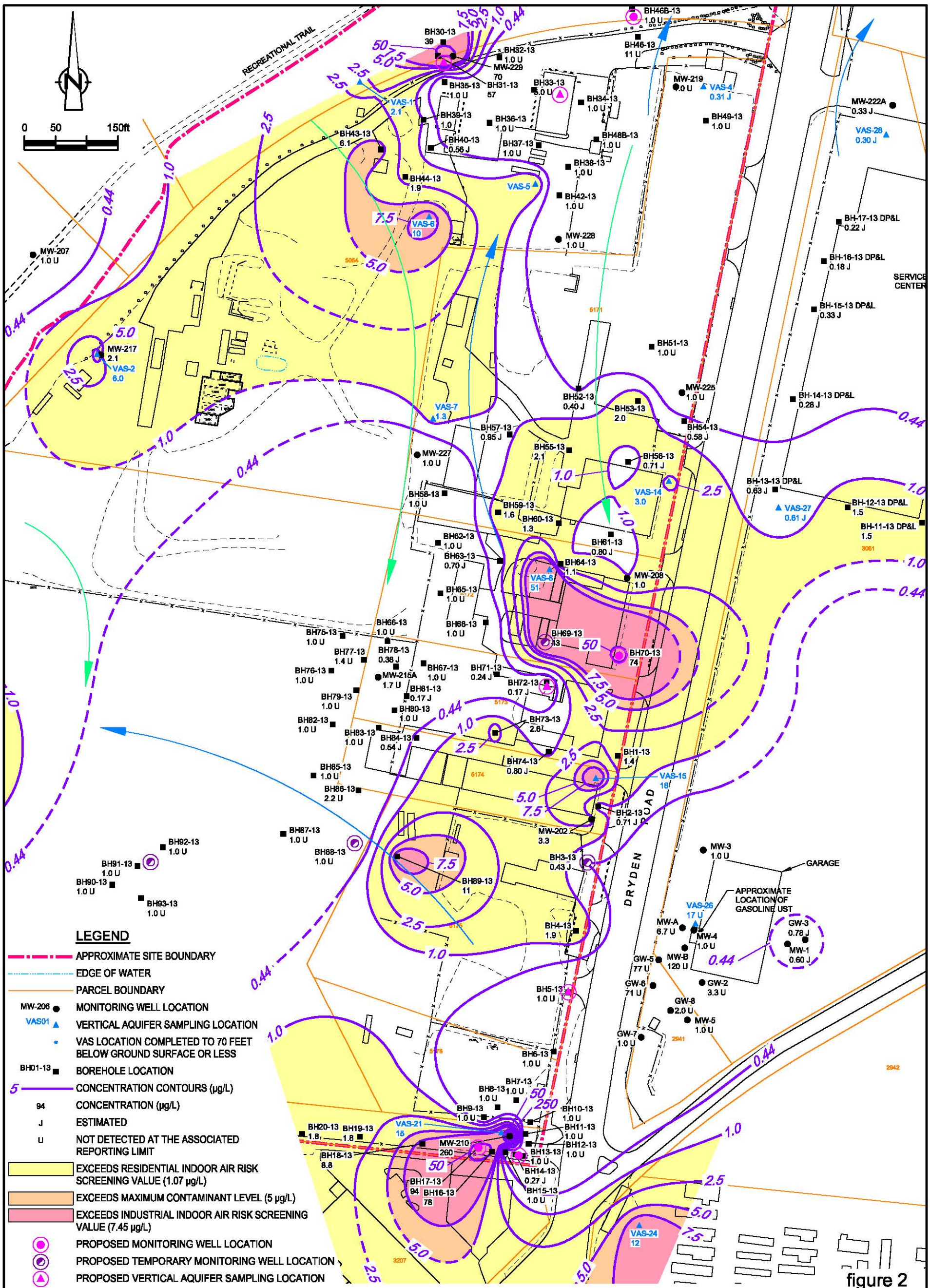
- APPROXIMATE SITE BOUNDARY
- EDGE OF WATER
- PARCEL BOUNDARY
- UNLICENSED DUMP (1945-1969)
- PART OF THE LICENSED LANDFILL (1969-1990)
- AREA NEVER RECEIVED WASTE BASED ON AVAILABLE DATA
- AREA FILLED INDEPENDENTLY OF DUMP PRIOR TO 1969
- AREA FILLED INDEPENDENTLY OF LANDFILL 1969-1996

figure

REPRESENTATION OF SITE FILLING AND LICENSED AREAS
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

38443-15(MEMO025)GN-WA021 OCT 2/2014



SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

figure 2

TCE GROUNDWATER CONTOURS
UPPER AQUIFER ZONE (>675 ft. AMSL)
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-74(028)GN-WA002 JAN 9/2014

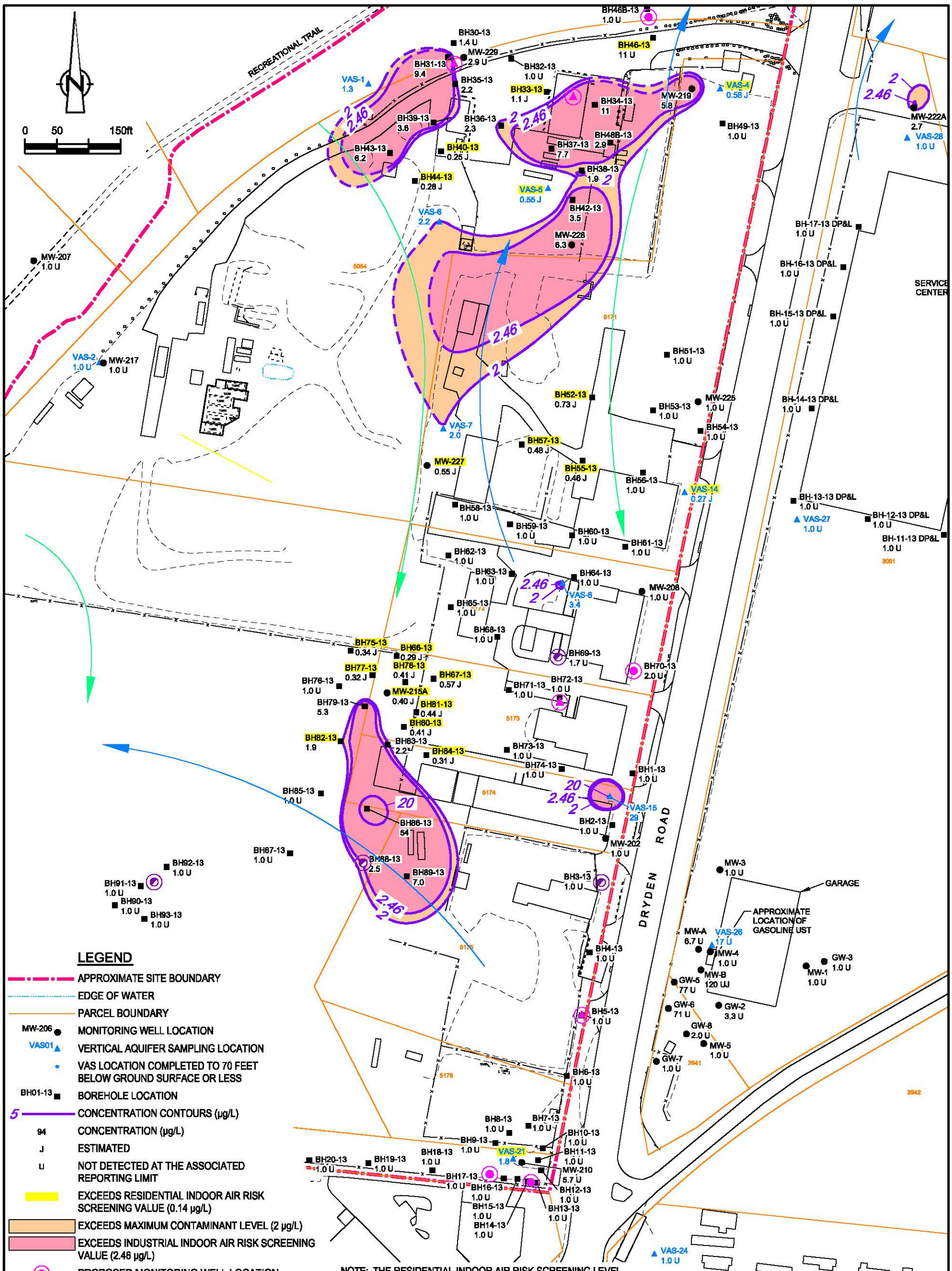
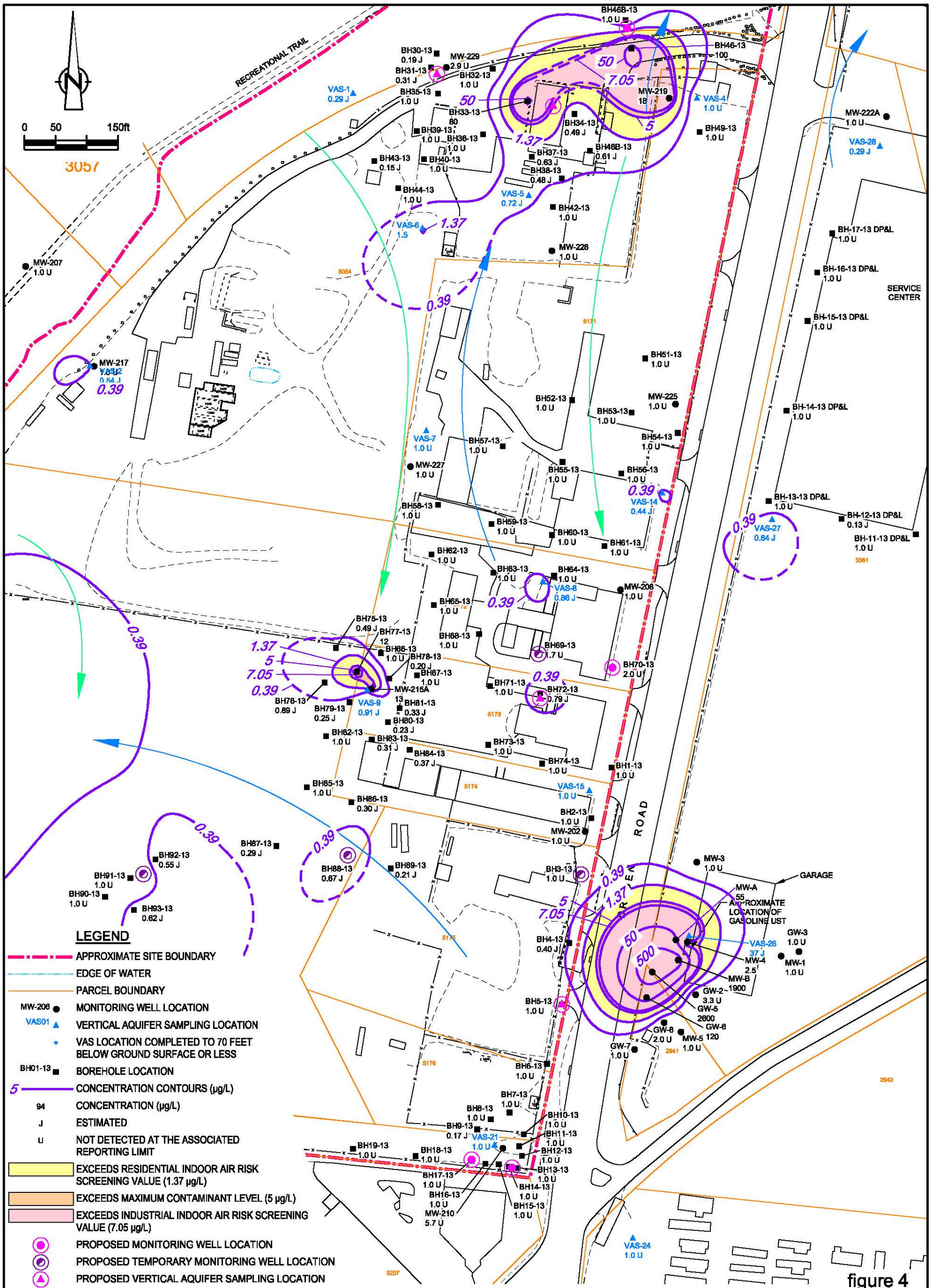


figure 3

VINYL CHLORIDE GROUNDWATER CONTOURS
UPPER AQUIFER ZONE (>675 ft. AMSL)
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-74(028)GN-WA003 JAN 9/2014



SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

figure 4

BENZENE GROUNDWATER CONTOURS
UPPER AQUIFER ZONE (>675 ft. AMSL)
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-74(028)GN-WA004 JAN 9/2014

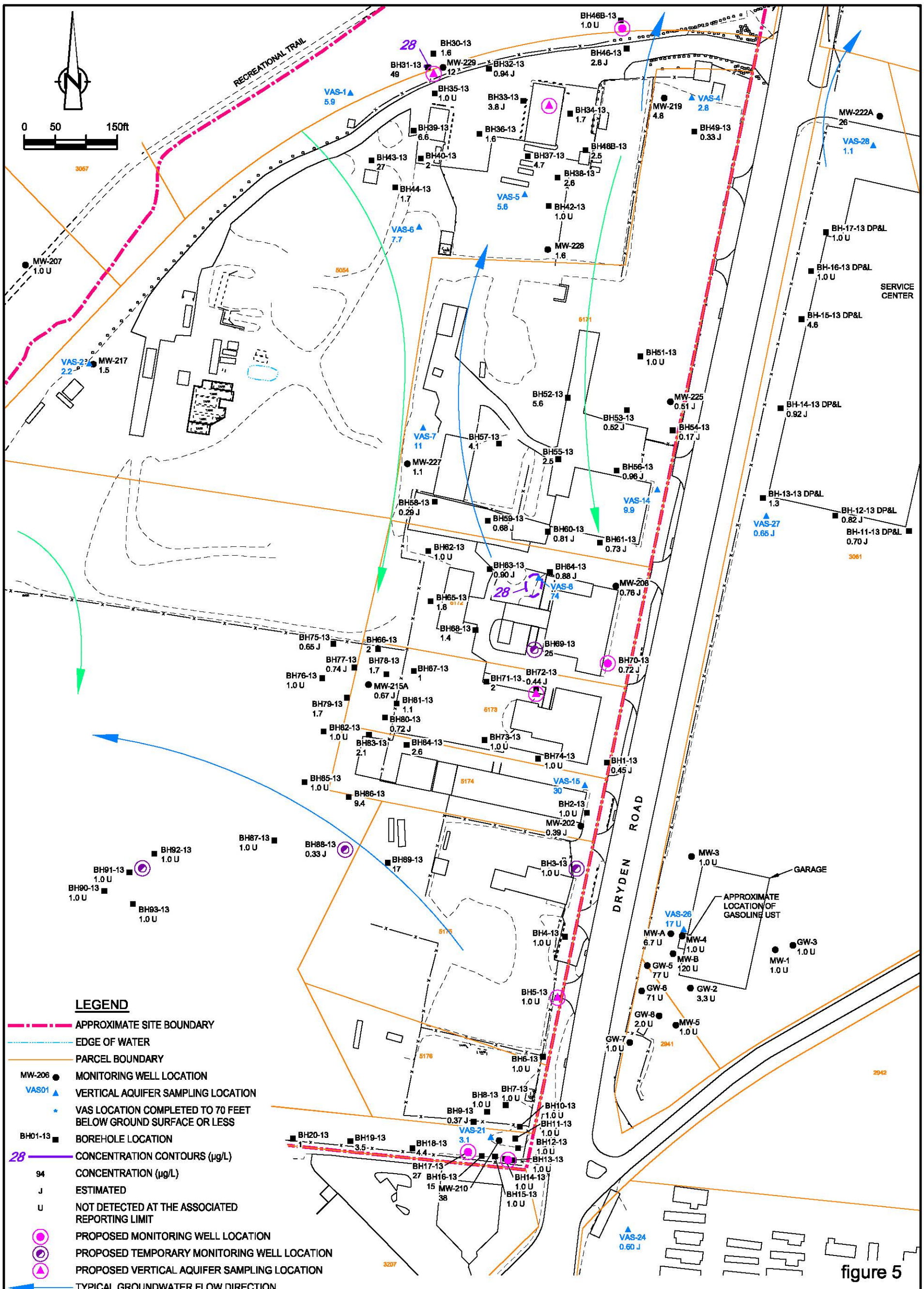
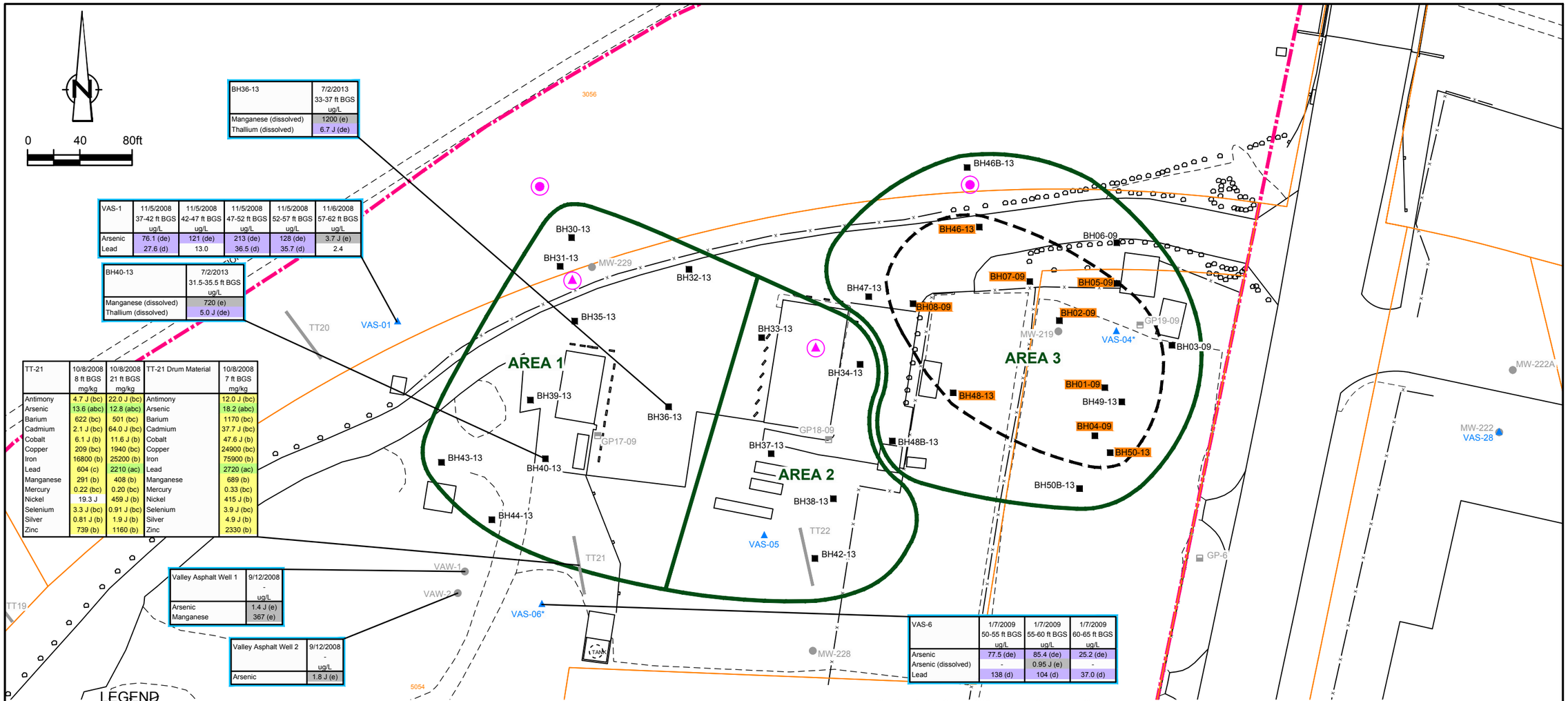


figure 5

CIS-1,2-DICHLOROETHENE GROUNDWATER CONTOURS
UPPER AQUIFER ZONE (>675 ft. AMSL)
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-74(028)GN-WA005 JAN 9/2014



BH36-13	7/2/2013 33-37 ft BGS ug/L
Manganese (dissolved)	1200 (e)
Thallium (dissolved)	6.7 J (de)

VAS-1	11/5/2008 37-42 ft BGS ug/L	11/5/2008 42-47 ft BGS ug/L	11/5/2008 47-52 ft BGS ug/L	11/5/2008 52-57 ft BGS ug/L	11/6/2008 57-62 ft BGS ug/L
Arsenic	76.1 (de)	121 (de)	213 (de)	128 (de)	3.7 J (e)
Lead	27.6 (d)	13.0	36.5 (d)	35.7 (d)	2.4

BH40-13	7/2/2013 31.5-35.5 ft BGS ug/L
Manganese (dissolved)	720 (e)
Thallium (dissolved)	5.0 J (de)

TT-21	10/8/2008 8 ft BGS mg/kg	10/8/2008 21 ft BGS mg/kg	TT-21 Drum Material	10/8/2008 7 ft BGS mg/kg
Antimony	4.7 J (bc)	22.0 J (bc)	Antimony	12.0 J (bc)
Arsenic	13.6 (abc)	12.8 (abc)	Arsenic	18.2 (abc)
Barium	622 (bc)	501 (bc)	Barium	1170 (bc)
Cadmium	2.1 J (bc)	64.0 J (bc)	Cadmium	37.7 J (bc)
Cobalt	6.1 J (b)	11.6 J (b)	Cobalt	47.6 J (b)
Copper	209 (bc)	1940 (bc)	Copper	24900 (bc)
Iron	16800 (b)	25200 (b)	Iron	75900 (b)
Lead	604 (c)	2210 (ac)	Lead	2720 (ac)
Manganese	291 (b)	408 (b)	Manganese	689 (b)
Mercury	0.22 (bc)	0.20 (bc)	Mercury	0.33 (bc)
Nickel	19.3 J	459 J (b)	Nickel	415 J (b)
Selenium	3.3 J (bc)	0.91 J (bc)	Selenium	3.9 J (bc)
Silver	0.81 J (b)	1.9 J (b)	Silver	4.9 J (b)
Zinc	739 (b)	1160 (b)	Zinc	2330 (b)

Valley Asphalt Well 1	9/12/2008 - ug/L
Arsenic	1.4 J (e)
Manganese	367 (e)

Valley Asphalt Well 2	9/12/2008 - ug/L
Arsenic	1.8 J (e)

VAS-6	1/7/2009 50-55 ft BGS ug/L	1/7/2009 55-60 ft BGS ug/L	1/7/2009 60-65 ft BGS ug/L
Arsenic	77.5 (de)	85.4 (de)	25.2 (de)
Arsenic (dissolved)	-	0.95 J (e)	-
Lead	138 (d)	104 (d)	37.0 (d)

LEGEND

- APPROXIMATE SITE BOUNDARY
- EDGE OF WATER
- PARCEL BOUNDARY
- EXTENT OF NAPL PLUME
- MW-206 MONITORING WELL LOCATION
- TT1 TEST TRENCH LOCATION
- VAS01 VERTICAL AQUIFER SAMPLING LOCATION
- * VAS LOCATION COMPLETED TO 70 FEET BELOW GROUND SURFACE OR LESS
- GP01-09 SHALLOW LANDFILL GAS PROBE
- GP02-09 DEEP LANDFILL GAS PROBE
- BH01-13 BOREHOLE LOCATION
- GP-1 USEPA NESTED SOIL GAS PROBE LOCATION
- POSITIVE SUDAN IV DYE TEST
- PROPOSED MONITORING WELL LOCATION
- PROPOSED VERTICAL AQUIFER SAMPLING LOCATION

Valley Asphalt Well 2	9/12/2008 - ug/L
Arsenic	1.8 J (e)

- SAMPLE IDENTIFICATION
- SAMPLE DATE
- SAMPLE DEPTH
- SAMPLE UNITS
- CRITERIA
- CONCENTRATION
- PARAMETER

J ESTIMATED

- SOIL EXCEEDS INDUSTRIAL SOIL RSL AND SSL
- SOIL EXCEEDS SSL
- GROUNDWATER EXCEEDS MCL AND TAPWATER (IF APPLICABLE)
- GROUNDWATER EXCEEDS TAPWATER
- GROUNDWATER RESULT

USEPA REGIONAL SCREENING LEVELS

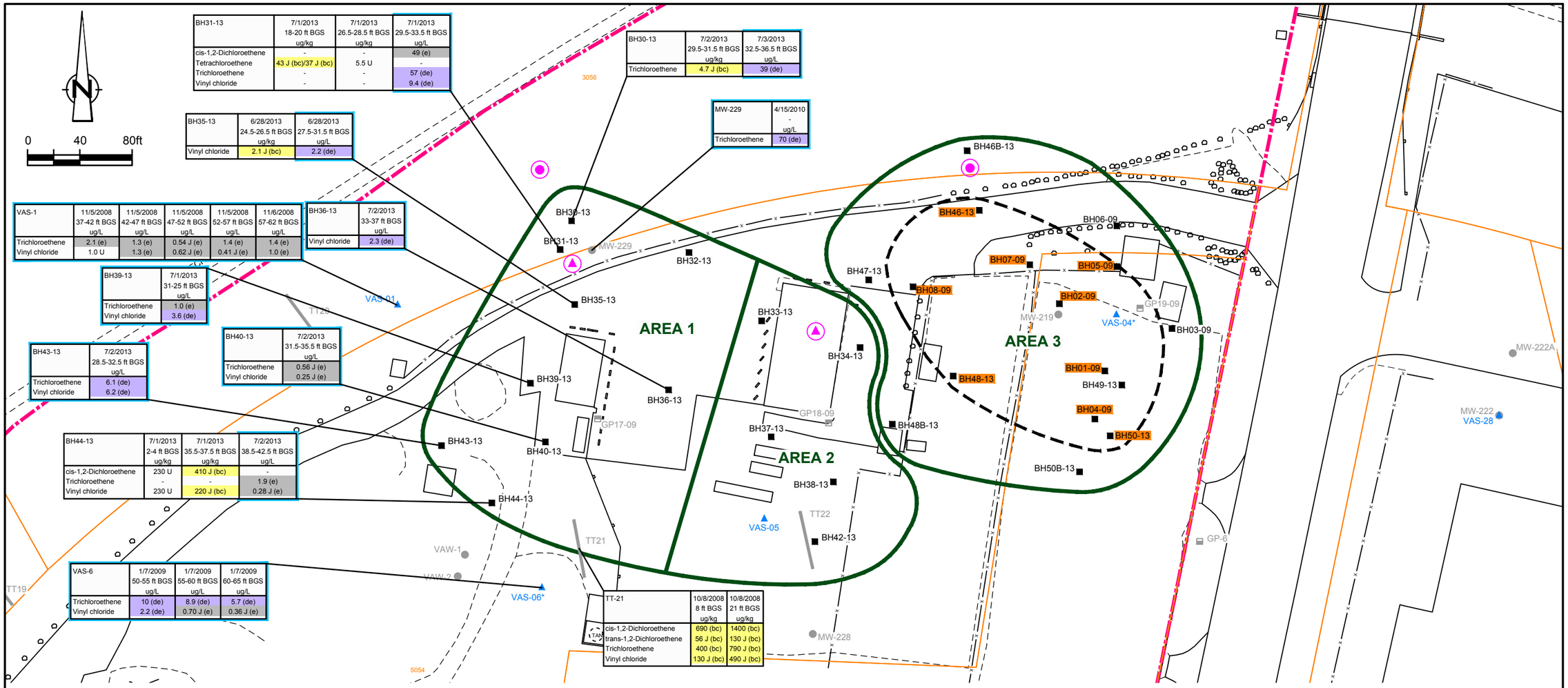
Chemical	Soil (mg/kg)			Groundwater (µg/L)	
	Industrial Soil (a)	Risk-Based SSL (b)	MCL-Based SSL (c)	Maximum Contaminant Levels (MCL) (d)	Tapwater (e)
Antimony	410	0.27	0.27	6	6
Arsenic	2.4	0.0013	0.29	10	0.045
Arsenic (dissolved)	-	-	-	10	0.045
Barium	19000	120	82	2000	2900
Cadmium	800	0.52	0.38	5	6.9
Cobalt	300	0.21	-	-	4.7
Copper	41000	22	46	1300	620
Iron	720000	270	-	-	11000
Lead	800	-	14	15	-
Manganese	23000	21	-	-	320
Manganese (dissolved)	-	-	-	-	320
Mercury	43	0.033	0.1	2	0.63
Nickel	20000	20	-	-	300
Selenium	5100	0.4	0.26	50	78
Silver	5100	0.6	-	-	71
Thallium (dissolved)	10	0.01	0.14	2	0.16
Zinc	310000	290	-	-	4700

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

figure ?

PHASE 1A AREA 1 - METAL RESULTS
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-74(PATT009)GN-WA020 NOV 22/2013



BH31-13	7/1/2013 18-20 ft BGS ug/kg	7/1/2013 26.5-28.5 ft BGS ug/kg	7/1/2013 29.5-33.5 ft BGS ug/L
cis-1,2-Dichloroethene	-	-	49 (e)
Tetrachloroethene	43 J (bc)/37 J (bc)	5.5 U	-
Trichloroethene	-	-	57 (de)
Vinyl chloride	-	-	9.4 (de)

BH30-13	7/2/2013 29.5-31.5 ft BGS ug/kg	7/3/2013 32.5-36.5 ft BGS ug/L
Trichloroethene	4.7 J (bc)	39 (de)

BH35-13	6/28/2013 24.5-26.5 ft BGS ug/kg	6/28/2013 27.5-31.5 ft BGS ug/L
Vinyl chloride	2.1 J (bc)	2.2 (de)

MW-229	4/15/2010 - ug/L
Trichloroethene	70 (de)

VAS-1	11/5/2008 37-42 ft BGS ug/L	11/5/2008 42-47 ft BGS ug/L	11/5/2008 47-52 ft BGS ug/L	11/5/2008 52-57 ft BGS ug/L	11/6/2008 57-62 ft BGS ug/L
Trichloroethene	2.1 (e)	1.3 (e)	0.54 J (e)	1.4 (e)	1.4 (e)
Vinyl chloride	1.0 U	1.3 (e)	0.62 J (e)	0.41 J (e)	1.0 (e)

BH36-13	7/2/2013 33-37 ft BGS ug/L
Vinyl chloride	2.3 (de)

BH39-13	7/1/2013 31-25 ft BGS ug/L
Trichloroethene	1.0 (e)
Vinyl chloride	3.6 (de)

BH40-13	7/2/2013 31.5-35.5 ft BGS ug/L
Trichloroethene	0.56 J (e)
Vinyl chloride	0.25 J (e)

BH43-13	7/2/2013 28.5-32.5 ft BGS ug/L
Trichloroethene	6.1 (de)
Vinyl chloride	6.2 (de)

BH44-13	7/1/2013 2-4 ft BGS ug/kg	7/1/2013 35.5-37.5 ft BGS ug/kg	7/2/2013 38.5-42.5 ft BGS ug/L
cis-1,2-Dichloroethene	230 U	410 J (bc)	-
Trichloroethene	-	-	1.9 (e)
Vinyl chloride	230 U	220 J (bc)	0.28 J (e)

VAS-6	1/7/2009 50-55 ft BGS ug/L	1/7/2009 55-60 ft BGS ug/L	1/7/2009 60-65 ft BGS ug/L
Trichloroethene	10 (de)	8.9 (de)	5.7 (de)
Vinyl chloride	2.2 (de)	0.70 J (e)	0.36 J (e)

TT-21	10/8/2008 8 ft BGS ug/kg	10/8/2008 21 ft BGS ug/kg
cis-1,2-Dichloroethene	690 (bc)	1400 (bc)
trans-1,2-Dichloroethene	56 J (bc)	130 J (bc)
Trichloroethene	400 (bc)	790 J (bc)
Vinyl chloride	130 J (bc)	490 J (bc)

LEGEND

- APPROXIMATE SITE BOUNDARY
- EDGE OF WATER
- PARCEL BOUNDARY
- EXTENT OF NAPL PLUME
- MW-206 MONITORING WELL LOCATION
- TT1 TEST TRENCH LOCATION
- VAS01 VERTICAL AQUIFER SAMPLING LOCATION
- * VAS LOCATION COMPLETED TO 70 FEET BELOW GROUND SURFACE OR LESS
- GP01-09 SHALLOW LANDFILL GAS PROBE
- GP02-09 DEEP LANDFILL GAS PROBE
- BH01-13 BOREHOLE LOCATION
- GP-1 USEPA NESTED SOIL GAS PROBE LOCATION
- POSITIVE SUDAN IV DYE TEST
- PROPOSED MONITORING WELL LOCATION
- PROPOSED VERTICAL AQUIFER SAMPLING LOCATION

BH36-13	7/2/2013
	33-37 ft BGS
	ug/L
Vinyl chloride	2.3

- SAMPLE IDENTIFICATION
- SAMPLE DATE
- SAMPLE DEPTH
- SAMPLE UNITS
- CRITERIA
- CONCENTRATION
- PARAMETER

- U NOT DETECTED
- J ESTIMATED
- SOIL EXCEEDS SSL
- GROUNDWATER EXCEEDS MCL AND TAPWATER (IF APPLICABLE)
- GROUNDWATER EXCEEDS TAPWATER
- GROUNDWATER RESULT

USEPA REGIONAL SCREENING LEVELS

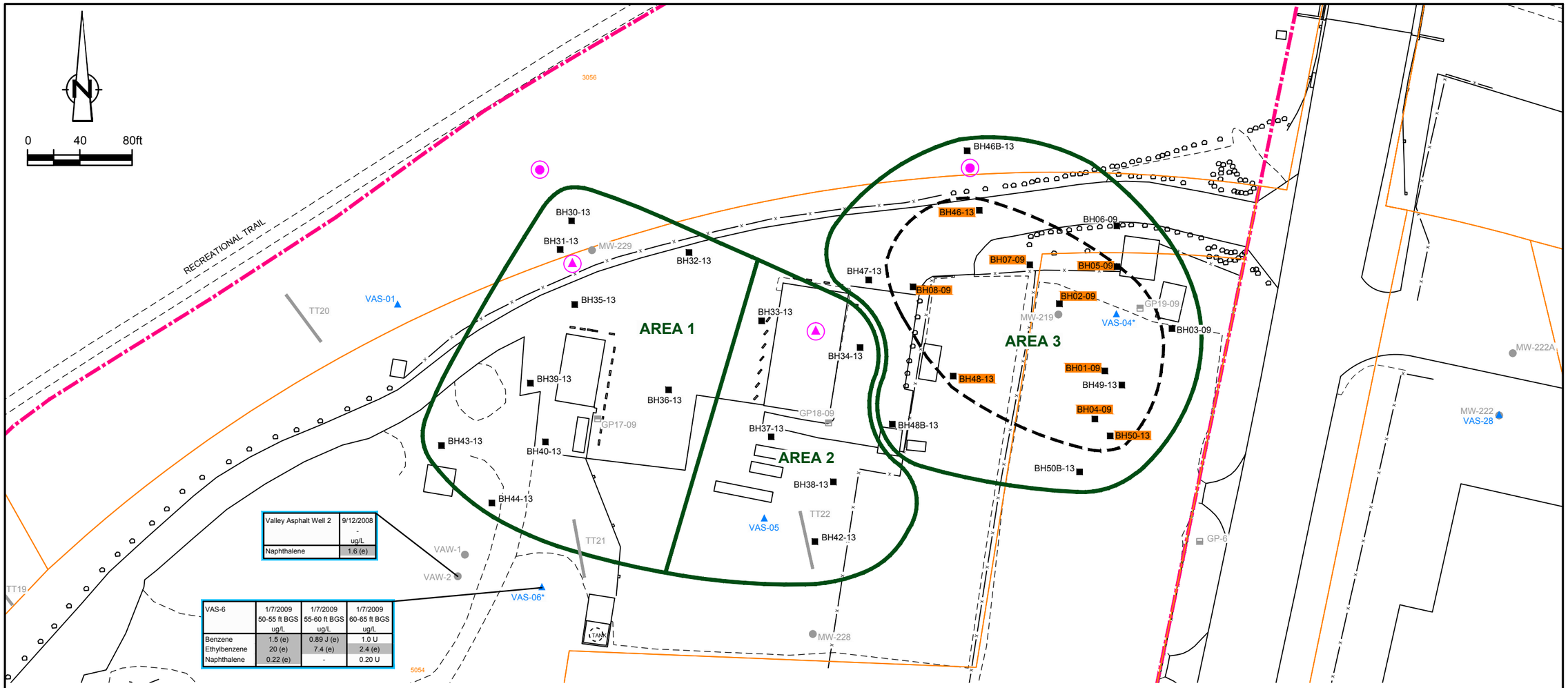
Chemical	Soil (µg/kg) Industrial Soil (a)	Soil (µg/kg) Risk-Based SSL (b)	Soil (µg/kg) MCL-Based SSL (c)	Groundwater (µg/L) Maximum Contaminant Levels (MCL) (d)	Groundwater (µg/L) Tapwater (e)
cis-1,2-Dichloroethane	2000000	8.2	21	70	28
Tetrachloroethene	110000	4.4	2.3	5	9.7
trans-1,2-Dichloroethene	690000	25	29	100	86
Trichloroethene	6400	0.16	1.8	5	0.44
Vinyl chloride	1700	0.0053	0.69	2	0.015

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

figure ?

PHASE 1A AREA1 - CHLORINATED SOLVENT RESULTS
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-74(PATT009)GN-WA021 NOV 22/2013



Valley Asphalt Well 2	9/12/2008 - ug/L
Naphthalene	1.6 (e)

VAS-6	1/7/2009 50-55 ft BGS ug/L	1/7/2009 55-60 ft BGS ug/L	1/7/2009 60-65 ft BGS ug/L
Benzene	1.5 (e)	0.89 J (e)	1.0 U
Ethylbenzene	20 (e)	7.4 (e)	2.4 (e)
Naphthalene	0.22 (e)	-	0.20 U

LEGEND

- APPROXIMATE SITE BOUNDARY
- EDGE OF WATER
- PARCEL BOUNDARY
- EXTENT OF NAPL PLUME
- MW-206 MONITORING WELL LOCATION
- TT1 TEST TRENCH LOCATION
- VAS01 VERTICAL AQUIFER SAMPLING LOCATION
- * VAS LOCATION COMPLETED TO 70 FEET BELOW GROUND SURFACE OR LESS
- GP01-09 SHALLOW LANDFILL GAS PROBE
- GP02-09 DEEP LANDFILL GAS PROBE
- BH01-13 BOREHOLE LOCATION
- GP-1 USEPA NESTED SOIL GAS PROBE LOCATION
- POSITIVE SUDAN IV DYE TEST
- PROPOSED MONITORING WELL LOCATION
- PROPOSED VERTICAL AQUIFER SAMPLING LOCATION

Valley Asphalt Well 2	9/12/2008
Naphthalene	ug/L 1.6 (e)

SAMPLE IDENTIFICATION
SAMPLE DATE
SAMPLE DEPTH
SAMPLE UNITS
CRITERIA
CONCENTRATION
PARAMETER

- U NOT DETECTED
- J ESTIMATED
- GROUNDWATER EXCEEDS TAPWATER
- GROUNDWATER RESULT

USEPA REGIONAL SCREENING LEVELS

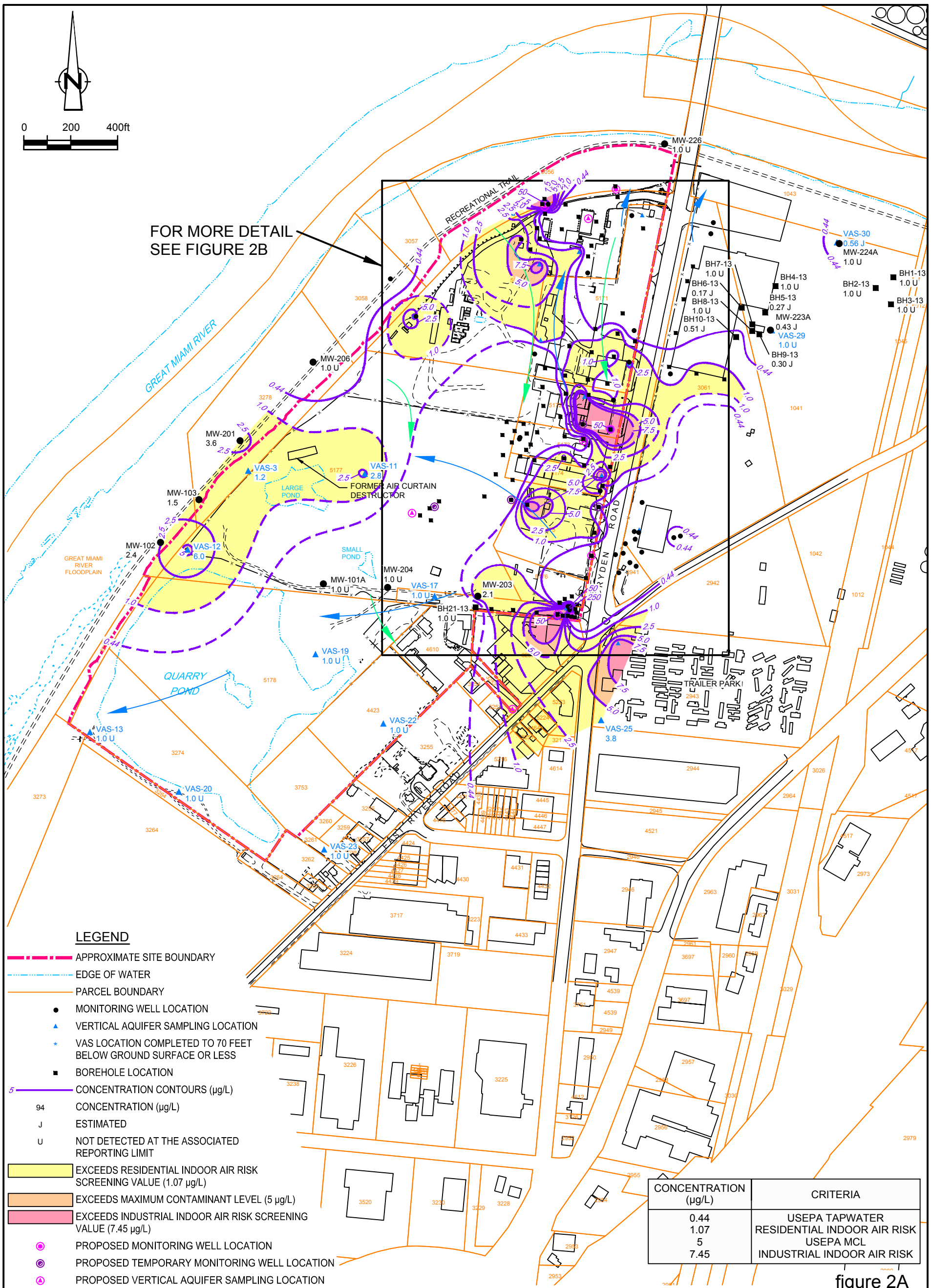
Chemical	Soil (µg/kg)			Groundwater (µg/L)	
	Industrial Soil (a)	Risk-Based SSL (b)	MCL-Based SSL (c)	Maximum Contaminant Levels (MCL) (d)	Tapwater (e)
Benzene	5400	0.2	2.6	5	0.39
Ethylbenzene	27000	1.5	780	700	1.3
Naphthalene	18000	0.47	-	-	0.14

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

figure ?

PHASE 1A AREA1 - BTEX RESULTS
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-74(PATT009)GN-WA024 NOV 22/2013



LEGEND

- APPROXIMATE SITE BOUNDARY
- EDGE OF WATER
- PARCEL BOUNDARY
- MONITORING WELL LOCATION
- VERTICAL AQUIFER SAMPLING LOCATION
- VAS LOCATION COMPLETED TO 70 FEET BELOW GROUND SURFACE OR LESS
- BOREHOLE LOCATION
- 5 CONCENTRATION CONTOURS (µg/L)
- 94 CONCENTRATION (µg/L)
- J ESTIMATED
- U NOT DETECTED AT THE ASSOCIATED REPORTING LIMIT
- EXCEEDS RESIDENTIAL INDOOR AIR RISK SCREENING VALUE (1.07 µg/L)
- EXCEEDS MAXIMUM CONTAMINANT LEVEL (5 µg/L)
- EXCEEDS INDUSTRIAL INDOOR AIR RISK SCREENING VALUE (7.45 µg/L)
- PROPOSED MONITORING WELL LOCATION
- PROPOSED TEMPORARY MONITORING WELL LOCATION
- PROPOSED VERTICAL AQUIFER SAMPLING LOCATION
- TYPICAL GROUNDWATER FLOW DIRECTION
- SEASONAL GROUNDWATER FLOW VARIATION DURING PERIODS OF GREATER FLOW IN GMR, REPRESENTS 18% OF AVAILABLE DATA

CONCENTRATION (µg/L)	CRITERIA
0.44	USEPA TAPWATER
1.07	RESIDENTIAL INDOOR AIR RISK
5	USEPA MCL
7.45	INDUSTRIAL INDOOR AIR RISK

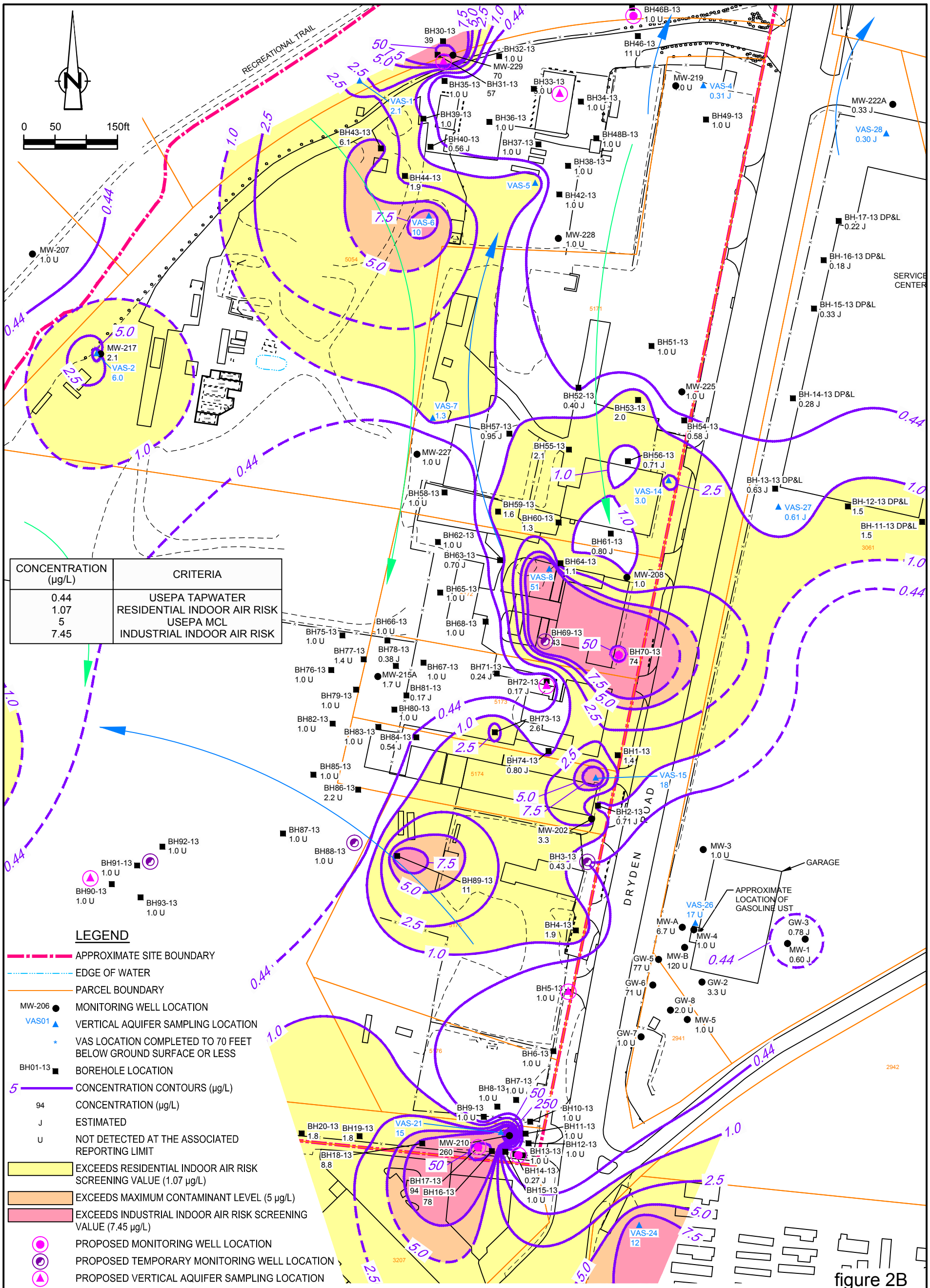
SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

figure 2A

TCE GROUNDWATER CONTOURS
UPPER AQUIFER ZONE (>675 ft. AMSL)
SOUTH DAYTON DUMP AND LANDFILL SITE

Moraine, Ohio

38443-74(028)GN-WA023 MAR 7/2014

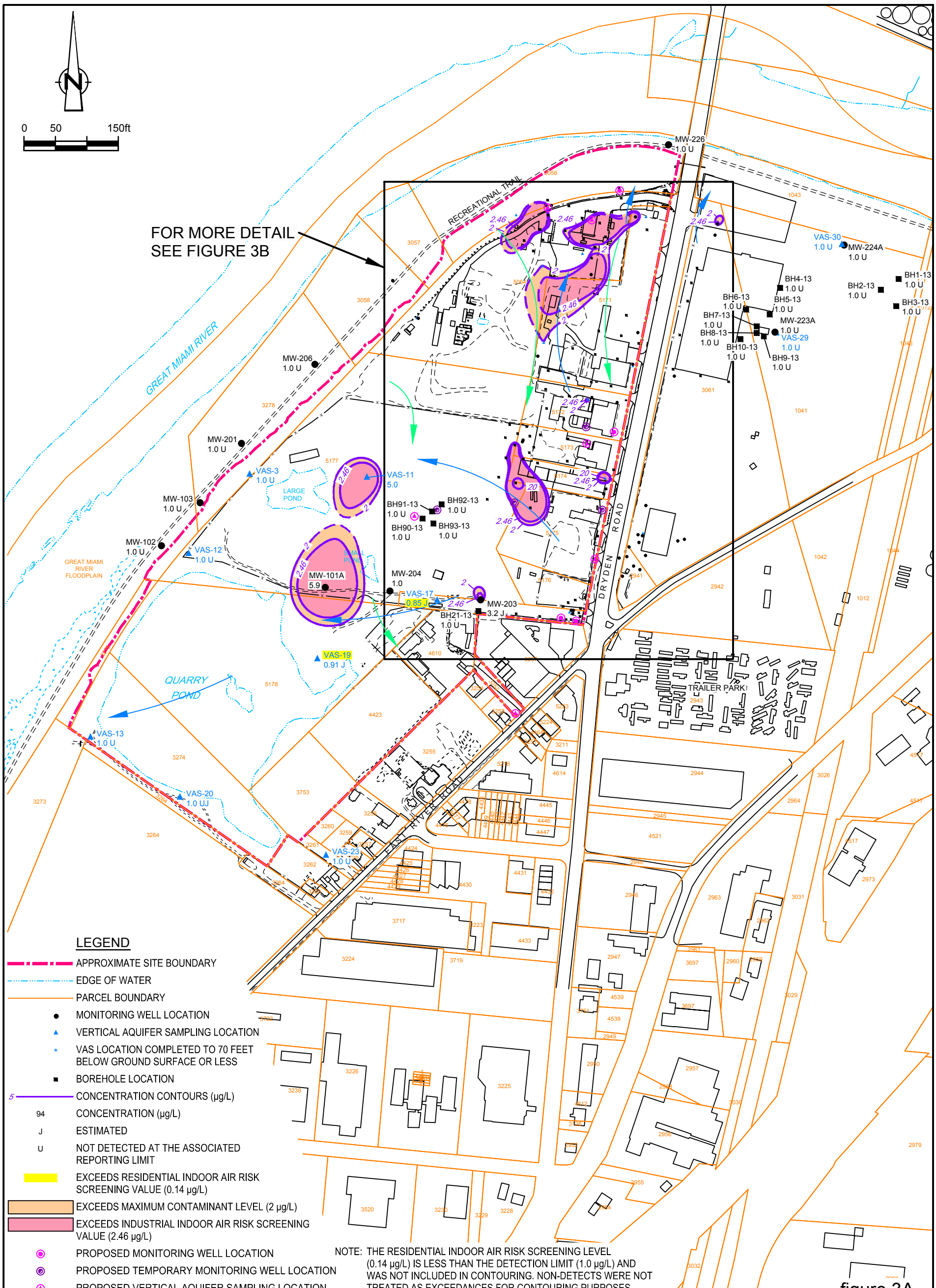


SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

figure 2B

TCE GROUNDWATER CONTOURS
UPPER AQUIFER ZONE (>675 ft. AMSL)
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-74(028)GN-WA002 MAR 7/2014



LEGEND

- APPROXIMATE SITE BOUNDARY
- EDGE OF WATER
- PARCEL BOUNDARY
- MONITORING WELL LOCATION
- VERTICAL AQUIFER SAMPLING LOCATION
- VAS LOCATION COMPLETED TO 70 FEET BELOW GROUND SURFACE OR LESS
- BOREHOLE LOCATION
- 5 — CONCENTRATION CONTOURS (µg/L)
- 94 — CONCENTRATION (µg/L)
- J — ESTIMATED
- U — NOT DETECTED AT THE ASSOCIATED REPORTING LIMIT
- EXCEEDS RESIDENTIAL INDOOR AIR RISK SCREENING VALUE (0.14 µg/L)
- EXCEEDS MAXIMUM CONTAMINANT LEVEL (2 µg/L)
- EXCEEDS INDUSTRIAL INDOOR AIR RISK SCREENING VALUE (2.46 µg/L)
- PROPOSED MONITORING WELL LOCATION
- PROPOSED TEMPORARY MONITORING WELL LOCATION
- PROPOSED VERTICAL AQUIFER SAMPLING LOCATION
- TYPICAL GROUNDWATER FLOW DIRECTION
- SEASONAL GROUNDWATER FLOW VARIATION DURING PERIODS OF GREATER FLOW IN GMR, REPRESENTS 18% OF AVAILABLE DATA

NOTE: THE RESIDENTIAL INDOOR AIR RISK SCREENING LEVEL (0.14 µg/L) IS LESS THAN THE DETECTION LIMIT (1.0 µg/L) AND WAS NOT INCLUDED IN CONTOURING. NON-DETECTS WERE NOT TREATED AS EXCEEDANCES FOR CONTOURING PURPOSES.

figure 3A

VINYL CHLORIDE GROUNDWATER CONTOURS UPPER AQUIFER ZONE (>675 ft. AMSL) SOUTH DAYTON DUMP AND LANDFILL SITE

Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

38443-74(028)GN-WA024 MAR 7/2014

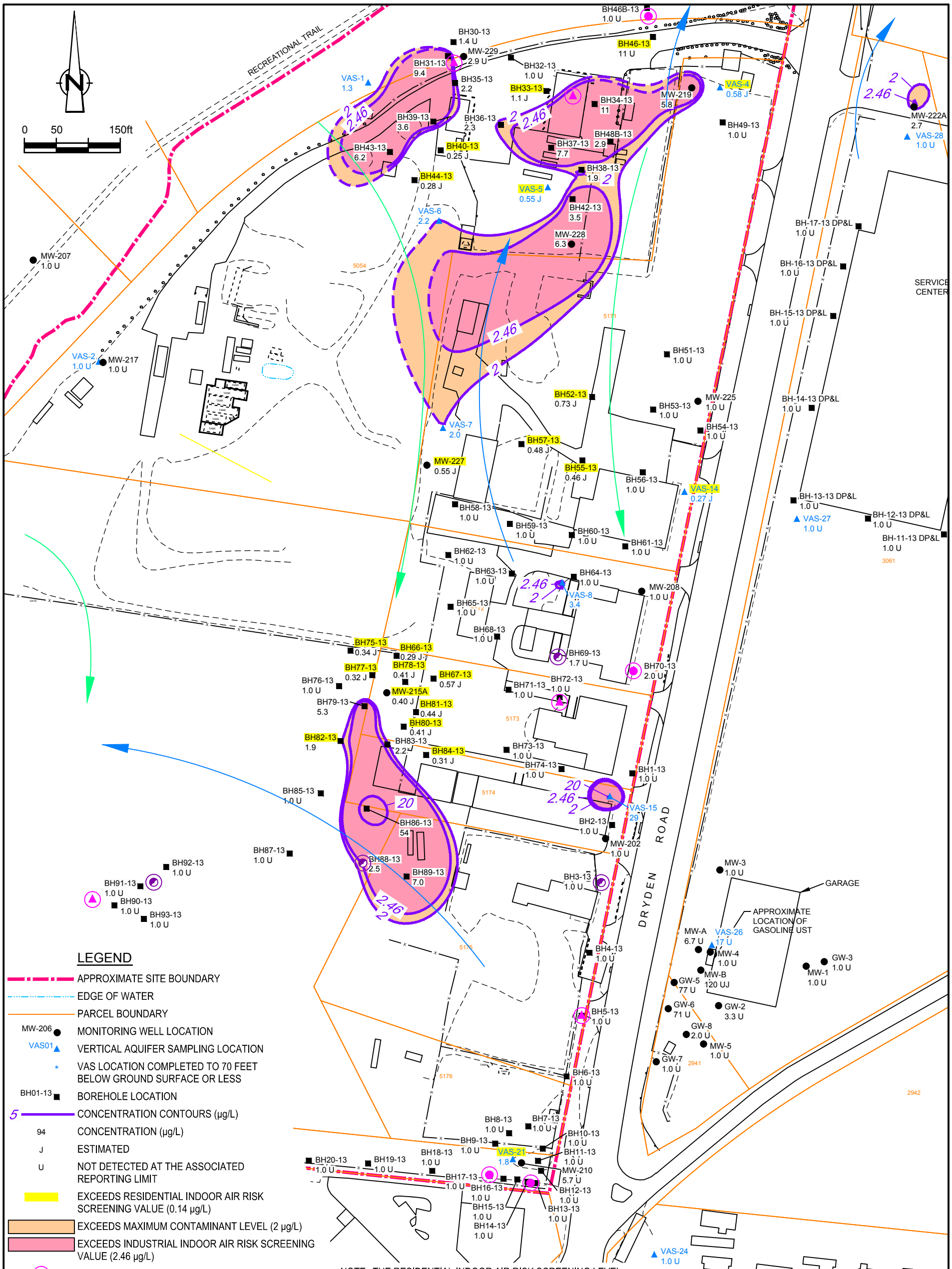
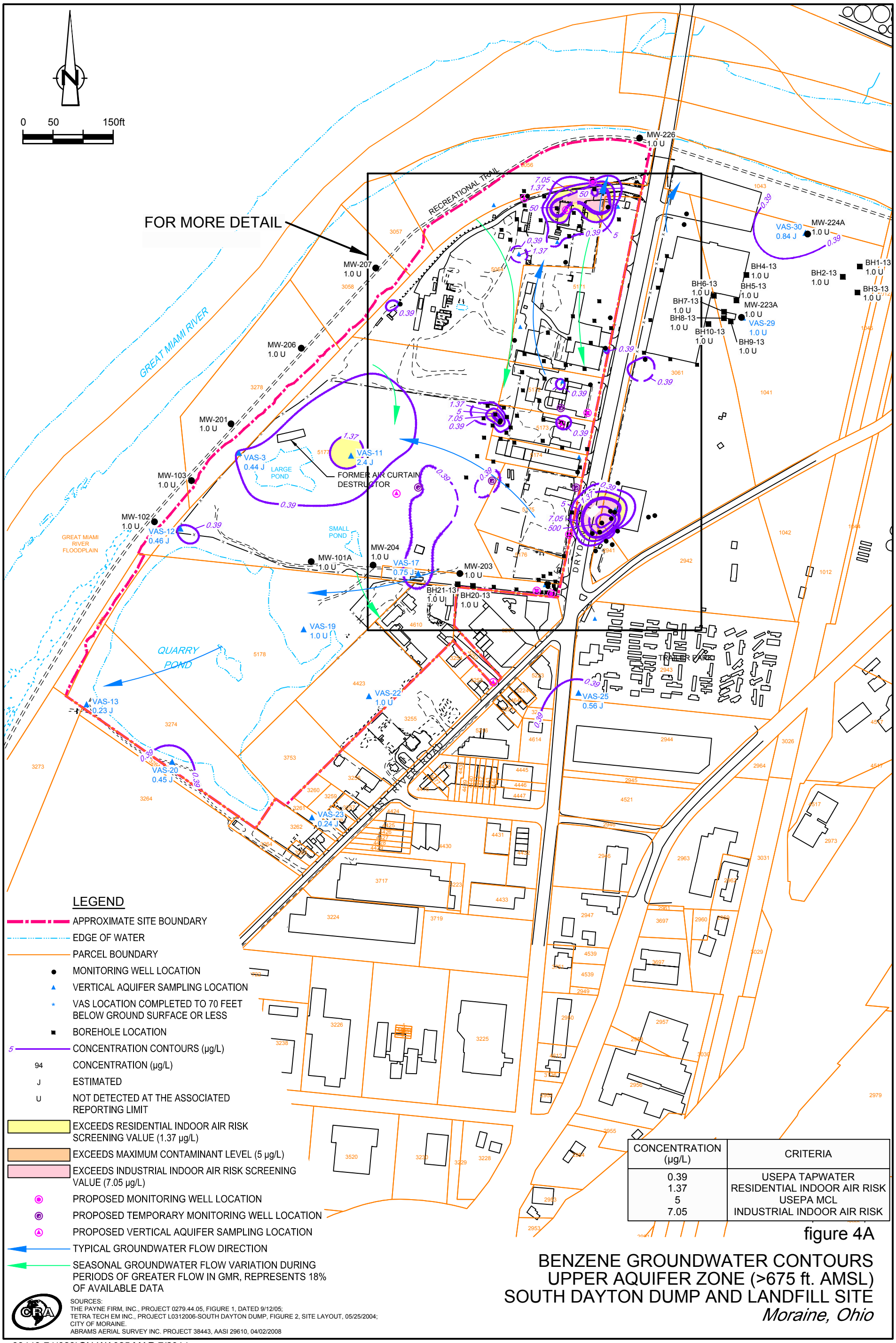


figure 3B

VINYL CHLORIDE GROUNDWATER CONTOURS
UPPER AQUIFER ZONE (>675 ft. AMSL)
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-74(028)GN-WA003 MAR 6/2014



CONCENTRATION (µg/L)	CRITERIA
0.39	USEPA TAPWATER
1.37	RESIDENTIAL INDOOR AIR RISK
5	USEPA MCL
7.05	INDUSTRIAL INDOOR AIR RISK

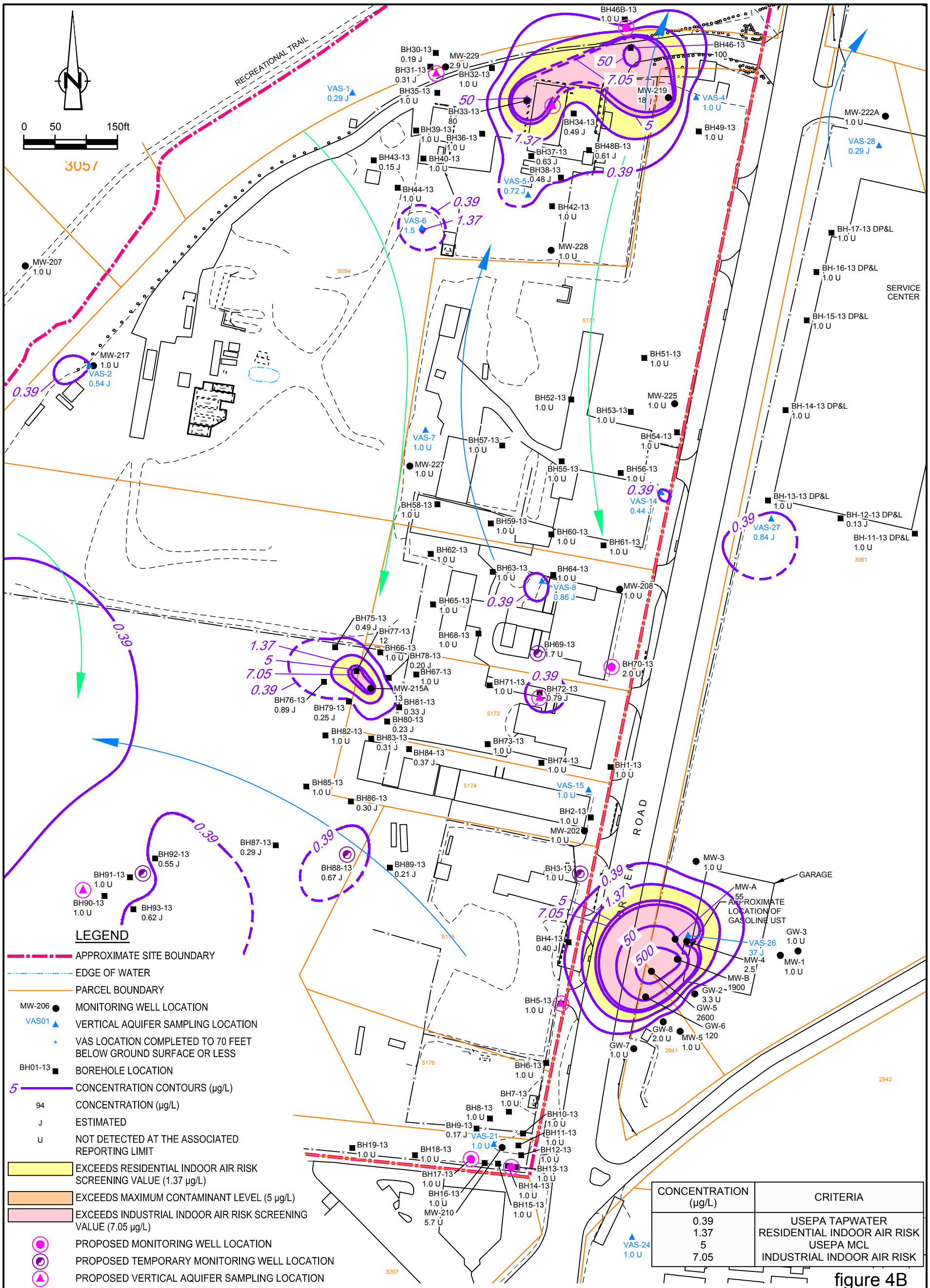
SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

figure 4A

BENZENE GROUNDWATER CONTOURS UPPER AQUIFER ZONE (>675 ft. AMSL) SOUTH DAYTON DUMP AND LANDFILL SITE

Moraine, Ohio

38443-74(028)GN-WA025 MAR 7/2014



CONCENTRATION (µg/L)	CRITERIA
0.39	USEPA TAPWATER
1.37	RESIDENTIAL INDOOR AIR RISK
5	USEPA MCL
7.05	INDUSTRIAL INDOOR AIR RISK

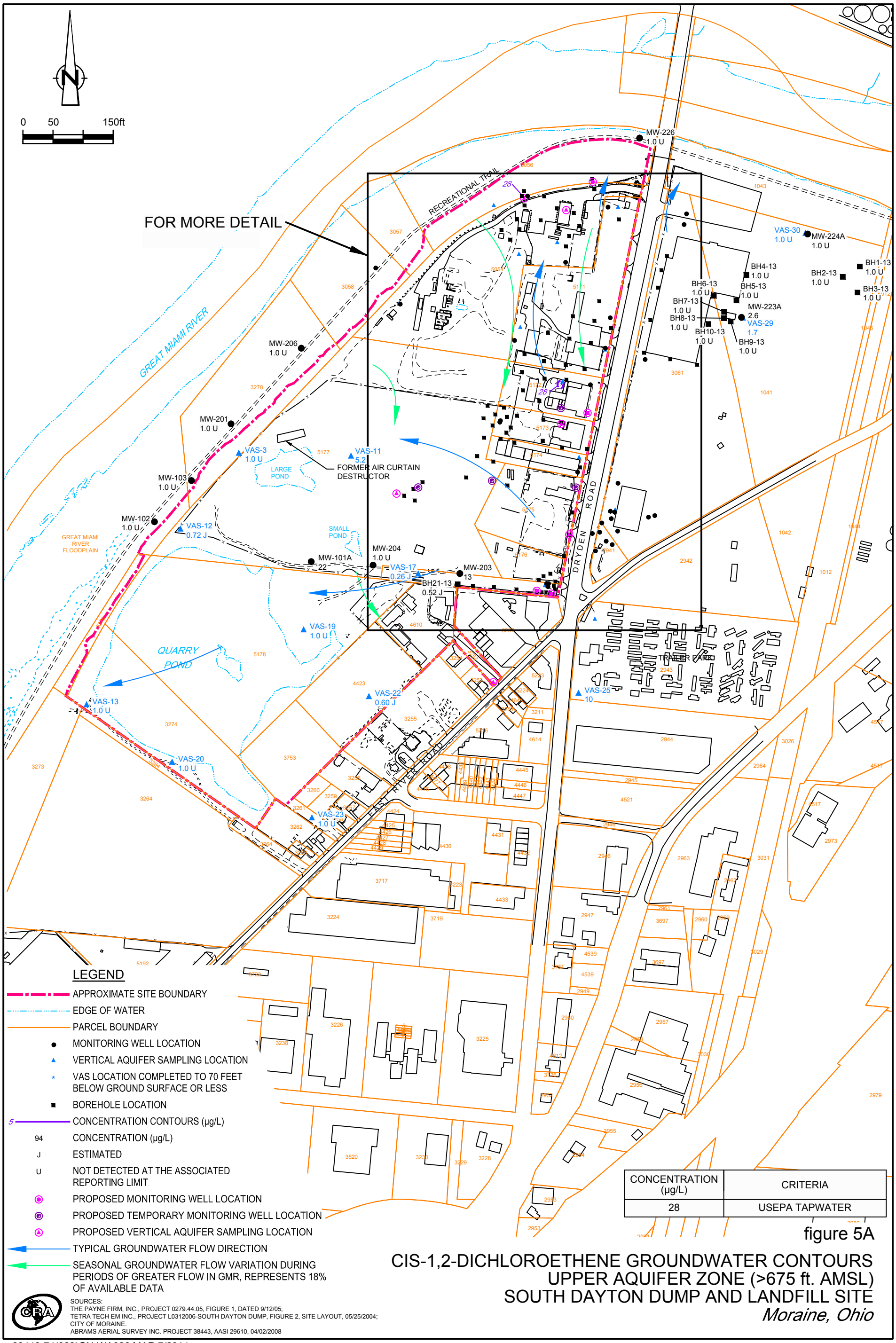
SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

figure 4B

BENZENE GROUNDWATER CONTOURS UPPER AQUIFER ZONE (>675 ft. AMSL) SOUTH DAYTON DUMP AND LANDFILL SITE

Moraine, Ohio

38443-74(028)GN-WA004 MAR 7/2014



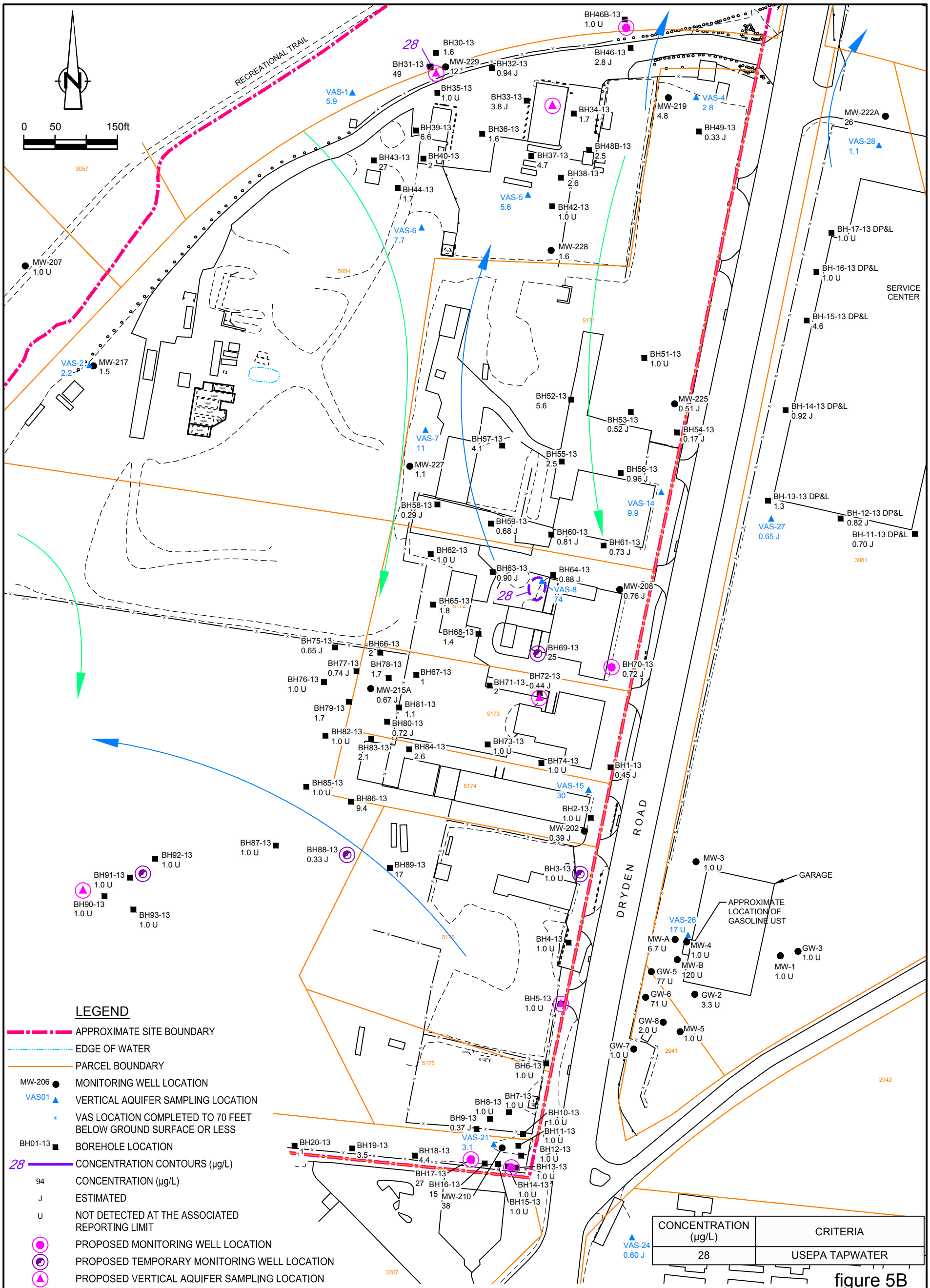
CONCENTRATION (µg/L)	CRITERIA
28	USEPA TAPWATER

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

figure 5A

CIS-1,2-DICHLOROETHENE GROUNDWATER CONTOURS
UPPER AQUIFER ZONE (>675 ft. AMSL)
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-74(028)GN-WA026 MAR 7/2014

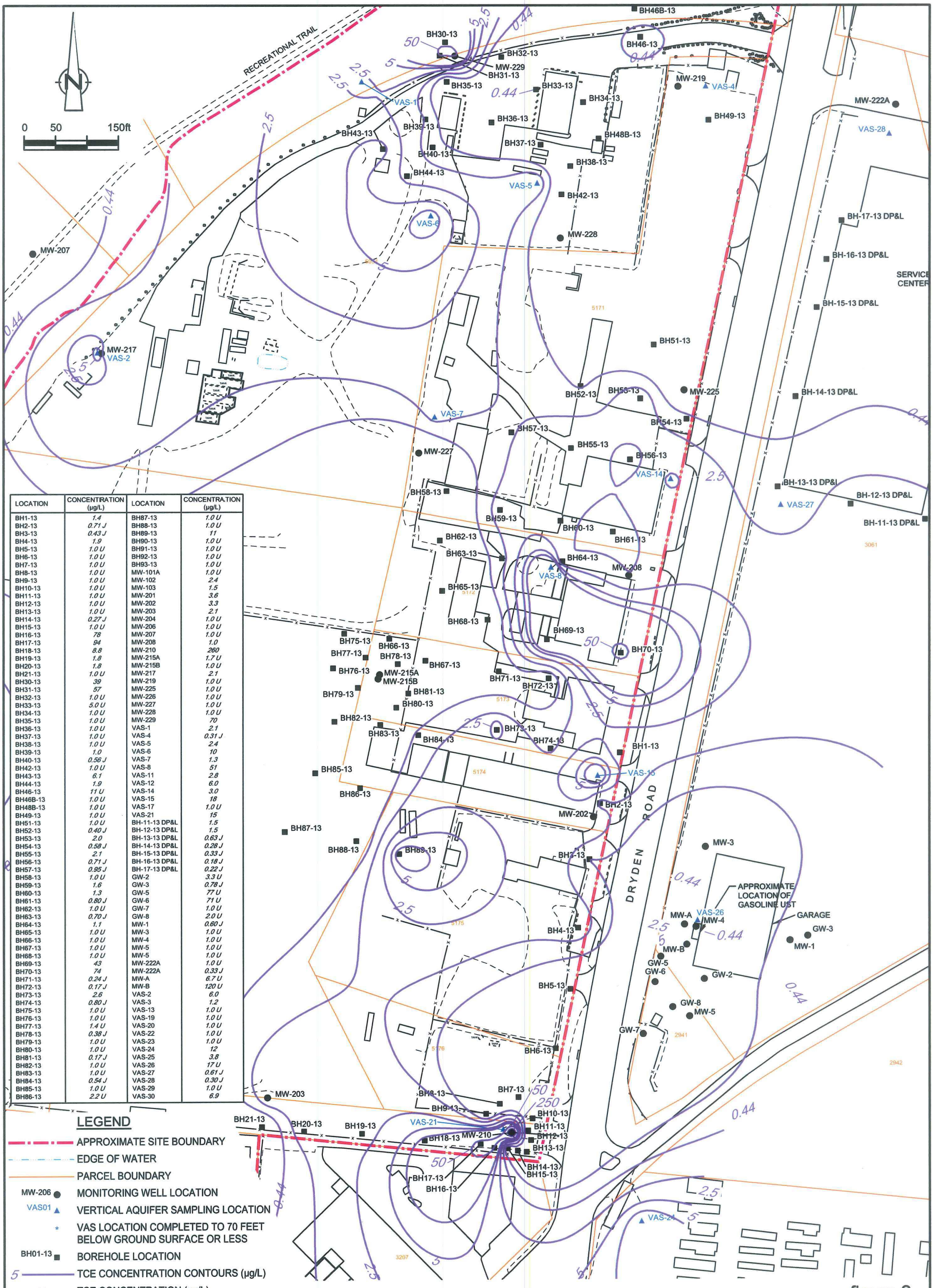


SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 29610, 04/02/2008

figure 5B

CIS-1,2-DICHLOROETHENE GROUNDWATER CONTOURS
UPPER AQUIFER ZONE (>675 ft. AMSL)
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-74(028)GN-WA005 MAR 6/2014



LOCATION	CONCENTRATION (µg/L)	LOCATION	CONCENTRATION (µg/L)
BH1-13	1.4	BH87-13	1.0 U
BH2-13	0.71 J	BH88-13	1.0 U
BH3-13	0.43 J	BH89-13	11
BH4-13	1.9	BH90-13	1.0 U
BH5-13	1.0 U	BH91-13	1.0 U
BH6-13	1.0 U	BH92-13	1.0 U
BH7-13	1.0 U	BH93-13	1.0 U
BH8-13	1.0 U	MW-101A	1.0 U
BH9-13	1.0 U	MW-102	2.4
BH10-13	1.0 U	MW-103	1.5
BH11-13	1.0 U	MW-201	3.6
BH12-13	1.0 U	MW-202	3.3
BH13-13	1.0 U	MW-203	2.1
BH14-13	0.27 J	MW-204	1.0 U
BH15-13	1.0 U	MW-206	1.0 U
BH16-13	78	MW-207	1.0 U
BH17-13	94	MW-208	1.0
BH18-13	8.8	MW-210	260
BH19-13	1.8	MW-215A	1.7 U
BH20-13	1.8	MW-215B	1.0 U
BH21-13	1.0 U	MW-217	2.1
BH30-13	39	MW-219	1.0 U
BH31-13	57	MW-225	1.0 U
BH32-13	1.0 U	MW-226	1.0 U
BH33-13	5.0 U	MW-227	1.0 U
BH34-13	1.0 U	MW-228	1.0 U
BH35-13	1.0 U	MW-229	70
BH36-13	1.0 U	VAS-1	2.1
BH37-13	1.0 U	VAS-4	0.31 J
BH38-13	1.0 U	VAS-5	2.4
BH39-13	1.0	VAS-6	10
BH40-13	0.56 J	VAS-7	1.3
BH42-13	1.0 U	VAS-8	51
BH43-13	6.1	VAS-11	2.8
BH44-13	1.9	VAS-12	6.0
BH46-13	11 U	VAS-14	3.0
BH46B-13	1.0 U	VAS-15	18
BH48B-13	1.0 U	VAS-17	1.0 U
BH49-13	1.0 U	VAS-21	15
BH51-13	1.0 U	BH-11-13 DP&L	1.5
BH52-13	0.40 J	BH-12-13 DP&L	1.5
BH53-13	2.0	BH-13-13 DP&L	0.63 J
BH54-13	0.58 J	BH-14-13 DP&L	0.28 J
BH55-13	2.1	BH-15-13 DP&L	0.33 J
BH56-13	0.71 J	BH-16-13 DP&L	0.18 J
BH57-13	0.95 J	BH-17-13 DP&L	0.22 J
BH58-13	1.0 U	GW-2	3.3 U
BH59-13	1.6	GW-3	0.78 J
BH60-13	1.3	GW-5	77 U
BH61-13	0.80 J	GW-6	71 U
BH62-13	1.0 U	GW-7	1.0 U
BH63-13	0.70 J	GW-8	2.0 U
BH64-13	1.1	MW-1	0.60 J
BH65-13	1.0 U	MW-3	1.0 U
BH66-13	1.0 U	MW-4	1.0 U
BH67-13	1.0 U	MW-5	1.0 U
BH68-13	1.0 U	MW-5	1.0 U
BH69-13	43	MW-222A	1.0 U
BH70-13	74	MW-222A	0.33 J
BH71-13	0.24 J	MW-A	6.7 U
BH72-13	0.17 J	MW-B	120 U
BH73-13	2.6	VAS-2	6.0
BH74-13	0.80 J	VAS-3	1.2
BH75-13	1.0 U	VAS-13	1.0 U
BH76-13	1.0 U	VAS-19	1.0 U
BH77-13	1.4 U	VAS-20	1.0 U
BH78-13	0.38 J	VAS-22	1.0 U
BH79-13	1.0 U	VAS-23	1.0 U
BH80-13	1.0 U	VAS-24	12
BH81-13	0.17 J	VAS-25	3.8
BH82-13	1.0 U	VAS-26	17 U
BH83-13	1.0 U	VAS-27	0.61 J
BH84-13	0.54 J	VAS-28	0.30 J
BH85-13	1.0 U	VAS-29	1.0 U
BH86-13	2.2 U	VAS-30	6.9

figure ?

UPPER AQUIFER ZONE - GROUNDWATER TCE
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
ABRAMS AERIAL SURVEY INC. PROJECT 38443,, AASI 29610, 04/02/2008

38443-74(PATT009)GN-WA025 DEC 2/2013