

MW-2A		MW-2B		MW-3A		MW-3B		MW-4A		MW-4B		MW-5A		MW-6B		MW-7B		MW-8A		MW-9A			
8/27/2018		8/27/2018		8/27/2018		8/27/2018		8/27/2018		8/27/2018		8/27/2018		8/27/2018		8/28/2018		8/28/2018		8/28/2018			
PFOA	ND	PFOA	22 ppt	PFHpA	14 ppt	PFOA	33 ppt	PFHxS	40 ppt	PFHxS	11 ppt	PFBA	13 ppt	PFBA	12 ppt	PFHxS	12 ppt	PFOA	20 ppt	N-FtFOSAA	31 ppt	PFOA	ND
PFOS	ND	PFOS	52 ppt	PFHxS	13 ppt	PFOS	24 ppt	PFOA	76 ppt	PFOA	21 ppt	PFPeA	12 ppt	PFPeA	13 ppt	PFOA	26 ppt	PFOS	18 ppt	PFOA	ND		
PFOA+PFOS	ND	PFOA+PFOS	74 ppt	PFOA	86 ppt	PFOA+PFOS	57 ppt	PFOS	42 ppt	PFOA+PFOS	38 ppt	PFHxA	16 ppt	PFHxA	15 ppt	PFOS	31 ppt	PFOA+PFOS	38 ppt	PFOS	20 ppt	PFOA+PFOS	20 ppt
Total PFAS	ND	Total PFAS	74 ppt	PFOS	0 ppt	Total PFAS	57 ppt	PFOA+PFOS	118 ppt	Total PFAS	49 ppt	PFBS	9.6 ppt	PFHxA	15 ppt	PFOA+PFOS	57 ppt	Total PFAS	38 ppt	PFOA+PFOS	20 ppt	Total PFAS	51 ppt
				PFOA+PFOS	86 ppt			Total PFAS	158 ppt			PFHpA	16 ppt	PFHxS	42 ppt								
				Total PFAS	113 ppt							PFHxS	48 ppt	PFOA	79 ppt								
												PFOA	81 ppt	PFOS	69 ppt								
												PFOA+PFOS	231 ppt	PFOA+PFOS	148 ppt								
												Total PFAS	345.6 ppt	Total PFAS	245 ppt								

MW-1B	
8/27/2018	
PFOA	ND
PFOS	14 ppt
PFOA+PFOS	14 ppt
Total PFAS	14 ppt

MW-1A	
8/27/2018	
PFHxS	13 ppt
PFOA	71 ppt
PFOS	22 ppt
PFOA+PFOS	93 ppt
Total PFAS	106 ppt

MW-10A	
8/28/2018	
PFOA	15 ppt
PFOS	78 ppt
PFOA+PFOS	93 ppt
Total PFAS	93 ppt

MW-11A	
8/28/2018	
PFBA	2.4 ppt
PFPeA	2.9 ppt
PFHxA	5.2 ppt
PFBS	4.1 ppt
PFHxS	3.4 ppt
PFOA	4.1 ppt
PFOS	ND
PFOA+PFOS	4.1 ppt
Total PFAS	22.1 ppt

MW-12A	
8/28/2018	
PFBA	8.3 ppt
PFPeA	13 ppt
PFHxA	16 ppt
PFBS	9.7 ppt
PFHpA	9.3 ppt
PFHxS	16 ppt
PFOA	26 ppt
PFOS	4.0 ppt
PFOA+PFOS	30 ppt
Total PFAS	102.3 ppt

BW-1A	
8/28/2018	
PFBA	2.7 ppt
PFBS	4.3 ppt
PFHxS	5.1 ppt
PFOA	4.1 ppt
PFOS	25 ppt
PFOA+PFOS	29.1 ppt
Total PFAS	41.2 ppt

BW-1B	
8/28/2018	
PFBA	2.9 ppt
PFBS	6.0 ppt
PFHxS	6.4 ppt
PFOA	ND
PFOS	ND
PFOA+PFOS	ND
Total PFAS	15.3 ppt

BW-2	
8/28/2018	
PFBA	3.0 ppt
PFHxA	2.0 ppt
PFBS	1.8 ppt
PFHpA	2.1 ppt
PFHxS	4.0 ppt
PFOA	14 ppt
PFOS	13 ppt
PFOA+PFOS	27 ppt
Total PFAS	39.9 ppt

MW-9A	
8/27/18	
N-FtFOSAA	60 ppt
PFOA	ND
PFOS	20 ppt
PFOA+PFOS	20 ppt
Total PFAS	80 ppt

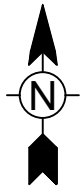
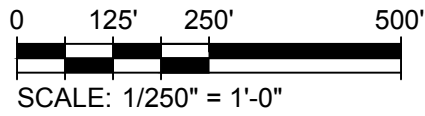
MONITORING LOCATION
 SAMPLE DATE
 PFAS CONGENER AND DETECTION IN PARTS PER TRILLION (ppt or ng/L)
 HIGHLIGHTED VALUE EXCEEDS GENERIC PART 201 CLEANUP CRITERIA VALUE THE GROUNDWATER TO SURFACE WATER INTERFACE FOR PFOS (11 ppt) FOR GREAT LAKES AND THEIR CONNECTING WATERS.
 THE GROUNDWATER TO SURFACE WATER GENERIC PART 201 CLEANUP CRITERIA FOR PFOA IS 420 ppt. THERE ARE NOT ESTABLISHED GROUNDWATER TO SURFACE WATER INTERFACE CRITERIA FOR OTHER PFAS CONGENERS.
 THE GENERIC DRINKING WATER CRITERIA IS 70 ppt FOR PFOA, PFOS, AND PFOA+PFOS.

LEGEND:

- - - - - PROPERTY BOUNDARY
- x - x - x - FENCE
- - - - - GRAVEL ROAD
- MW-1A GROUNDWATER MONITORING WELL
- - - - - SHEET PILING AT RIVERBANK

NOTES:

- BASEMAP OBTAINED FROM ARCADIS, 2015. BASEMAP INFORMATION WAS DEVELOPED FROM FIELD SURVEY DATA OBTAINED BY PREIN & NEWHOF IN DECEMBER 2009, MAY 2007, MAY 2006, AND AERIAL PHOTOGRAPHY FLOW IN APRIL 1991.



MARK	DATE	DESCRIPTION	BY
			NLJ

WILLOW BLVD / A-SITE LANDFILLS
 LAKE STREET AND OLMEADE AVENUE
 KALAMAZOO, MICHIGAN
SAMPLE RESULTS
SEPTEMBER 2018
PFAS ASSESSMENT

Project No.: 117-4124SMP0800
 Designed By: M. MAHONY
 Drawn By: M. SAVALLE
 Checked By: DRS