TABLE 1

SOIL ANALYTICAL RESULTS PARK LAKE ROAD and MERRITT ROAD EAST LANSING, MICHIGAN 48823

Triterra Project No. 15-1536-19

Analyzed Constituent	CAS Number	MDEQ Part 201 Generic Residential Cleanup Criteria and Screening Levels				Sample Identification, Sample Interval, and Date Collected						
		Statewide Default Background Levels	Drinking Water Protection Criteria	GSI Protection Criteria	Direct Contact Criteria	TP-101 8'-10' 1/11/2017	TP-401 8'-10' 1/11/2017	TP-601 6' - 8' 1/11/2017	TP-801 8' - 10' 1/11/2017	TP-1001 6' - 8' 1/11/2017	TP-1101 6' - 8' 1/11/2017	TP-1501 8' - 10' 1/11/2011
VOCs												
1,2,4-Trimethylbenzene	95636	NA	2,100	570	32,000,000	510	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>830</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>830</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>830</td><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td>830</td><td><rl< td=""></rl<></td></rl<>	830	<rl< td=""></rl<>
1,3,5-Trimethylbenzene	108678	NA	1,800	1,100	32,000,000 C	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>80</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>80</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>80</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>80</td><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td>80</td><td><rl< td=""></rl<></td></rl<>	80	<rl< td=""></rl<>
2-Methylnaphthalene	91576	NA	57,000	4,200	8,100,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>1,300</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>1,300</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>1,300</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>1,300</td><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td>1,300</td><td><rl< td=""></rl<></td></rl<>	1,300	<rl< td=""></rl<>
Naphthalene	91203	NA	35,000	730	1,600,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>1,500</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>1,500</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>1,500</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>1,500</td><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td>1,500</td><td><rl< td=""></rl<></td></rl<>	1,500	<rl< td=""></rl<>
n-Propylbenzene	103651	NA	1,600	ID	2,500,000	280	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>120</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>120</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>120</td><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td>120</td><td><rl< td=""></rl<></td></rl<>	120	<rl< td=""></rl<>
1,4-Dichlorobenzene	106467	NA	1,700	360	400,000	1,700	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
n-Butylbenzene	104518	NA	1,600	ID	2,500,000	740	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>370</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>370</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>370</td><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td>370</td><td><rl< td=""></rl<></td></rl<>	370	<rl< td=""></rl<>
sec-Butylbenzene	135988	NA	1,600	ID	2,500,000	400	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>150</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>150</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>150</td><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td>150</td><td><rl< td=""></rl<></td></rl<>	150	<rl< td=""></rl<>
Remaining VOCs	Vw/C	NA	Vw/C	Vw/C	Vw/C	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
PAHs												
Benzo(a)anthracene	56553	NA	NLL	NLL	20,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""><td>400</td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""><td>400</td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""><td>400</td></rl<></td></rl<></td></rl<>	<rl< td=""><td>500</td><td><rl< td=""><td>400</td></rl<></td></rl<>	500	<rl< td=""><td>400</td></rl<>	400
Benzo(a)pyrene	50328	NA	NLL	NLL	2,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""><td>400</td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""><td>400</td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""><td>400</td></rl<></td></rl<></td></rl<>	<rl< td=""><td>500</td><td><rl< td=""><td>400</td></rl<></td></rl<>	500	<rl< td=""><td>400</td></rl<>	400
Benzo(b)fluoranthene	205992	NA	NLL	NLL	20,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>900</td><td><rl< td=""><td>800</td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>900</td><td><rl< td=""><td>800</td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>900</td><td><rl< td=""><td>800</td></rl<></td></rl<></td></rl<>	<rl< td=""><td>900</td><td><rl< td=""><td>800</td></rl<></td></rl<>	900	<rl< td=""><td>800</td></rl<>	800
Benzo(k)fluoranthene	207089	NA	NLL	NLL	200,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>1,000</td><td><rl< td=""><td>900</td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>1,000</td><td><rl< td=""><td>900</td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>1,000</td><td><rl< td=""><td>900</td></rl<></td></rl<></td></rl<>	<rl< td=""><td>1,000</td><td><rl< td=""><td>900</td></rl<></td></rl<>	1,000	<rl< td=""><td>900</td></rl<>	900
Benzo(ghi)perylene	191242	NA	NLL	NLL	8,000,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>300</td><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>300</td><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>300</td><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td>300</td><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	300	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Chrysene	218019	NA	NLL	NLL	2,000,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""><td>400</td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""><td>400</td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""><td>400</td></rl<></td></rl<></td></rl<>	<rl< td=""><td>500</td><td><rl< td=""><td>400</td></rl<></td></rl<>	500	<rl< td=""><td>400</td></rl<>	400
Fluoranthene	206440	NA	730,000	5,500	46,000,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>900</td><td>500</td><td>800</td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>900</td><td>500</td><td>800</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>900</td><td>500</td><td>800</td></rl<></td></rl<>	<rl< td=""><td>900</td><td>500</td><td>800</td></rl<>	900	500	800
2-Methylnaphthalene	91576	NA	57,000	4,200	8,100,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>700</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>700</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>700</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>700</td><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td>700</td><td><rl< td=""></rl<></td></rl<>	700	<rl< td=""></rl<>
Naphthalene	91203	NA	35,000	730	1,600,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td>500</td><td><rl< td=""></rl<></td></rl<>	500	<rl< td=""></rl<>
Phenanthrene	85018	NA	56,000	2,100	12,000,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>400</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>400</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>400</td><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>400</td><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td>400</td><td><rl< td=""></rl<></td></rl<>	400	<rl< td=""></rl<>
Pyrene	129000	NA	480,000	ID	29,000,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td>1,000</td><td>500</td><td>700</td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td>1,000</td><td>500</td><td>700</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>1,000</td><td>500</td><td>700</td></rl<></td></rl<>	<rl< td=""><td>1,000</td><td>500</td><td>700</td></rl<>	1,000	500	700
Remaining PAHs	Vw/C	NA	Vw/C	Vw/C	Vw/C	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Inorganics												
Arsenic (B)	7440382	5,800	5,800	5,800	7,600	2,210	1,570	2,090	5,980	2,210	1,500	1,610
Barium* (B)	7440393	75,000	1,300,000	440,000	37,000,000	89,700	44,000	70,800	69,200	30,700	34,400	32,500
Cadmium * (B)	7440439	1,200	6,000	3,000	550,000	1,280	<rl< td=""><td><rl< td=""><td>350</td><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td>350</td><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	350	<rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Chromium III	16065831	18,000	1,000,000,000	9,000,000,000	250,000,000	7,060	3,450	5,280	6,080	4,960	6,050	3,660
Copper* (B)	7440508	32,000	5,800,000	73,000	20,000,000	23,400	10,900	11,700	30,700	11,100	9,400	10,400
Lead, Total * (B)	7439921	21,000	700,000	2,500,000	400,000	51,700	50,300	50,900	79,300	12,400	13,400	21,900
Mercury, Total (B)	Varies	130	1,700	50	160,000	206	<rl< td=""><td>134</td><td>397</td><td><rl< td=""><td>65</td><td><rl< td=""></rl<></td></rl<></td></rl<>	134	397	<rl< td=""><td>65</td><td><rl< td=""></rl<></td></rl<>	65	<rl< td=""></rl<>
Selenium (B)	7782492	410	4,000	410	2,600,000	<rl< td=""><td><rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>500</td><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<></td></rl<>	<rl< td=""><td>500</td><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	500	<rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Silver	7440224	100	4,500	100	2,500,000	350	<rl< td=""><td>230</td><td>4,750</td><td><rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<></td></rl<>	230	4,750	<rl< td=""><td><rl< td=""><td><rl< td=""></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""></rl<></td></rl<>	<rl< td=""></rl<>
Zinc* (B)	7440666	47,000	2,400,000	170,000	170,000,000	122,000	51,500	43,700	65,300	24,200	23,500	24,500

NOTES:

- 1. Analytical results compared to MDEQ criteria presented in Administrative Rules for Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, effective 12/30/2013.
- 2. Concentrations reported in ppb (parts per billion or ug/kg).
- 3. Detected results shown in **BOLD.** Exceedances are highlighted.
- 4. * = GSI Protection was calculated for the indicated metals using the MDEQ spreadsheet for calculating GSI. A default water hardness value of 150 mg/kg as CaCO3 was used to calculate GSI.

 Results are presented for surface water receiving bodies that are protected as a drinking water source.
- 5. <RL = Result was less than the laboratory reporting limits, NR = Analysis not requested, NLV = Not likely to volatilize under most conditions, ID = Insufficient data to develop criterion, Vw/C = Varies with constituent.
- 6. B = Background levels, as defined in R 299.1(b) may be subsituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some organic compounds.