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24 July 2020

Ms. Karlee Fowler
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

**Subject: Supplemental Site Assessment – Analytical Results**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**
**ERIC_7397**
**FDEP Contract HW 550, Task Assignment SOL-0A077, Subtask 6**

Dear Ms. Fowler,

Geosyntec Consultants, Inc. (Geosyntec) has prepared this letter report to summarize the results of the supplemental assessment activities at the Hillsborough Community College (HCC) located in Tampa, Florida. The objective of this investigation was to further evaluate the extent and magnitude of per- and polyfluoroalkyl substances (PFAS)-impacted media at HCC.

In accordance with Subtask 6 of Task Assignment SOL-0A077, Geosyntec prepared tables summarizing multimedia (groundwater, surface water, sediment, and soil) sampling locations and results (**Table 1** to **Table 10**). Geosyntec also prepared figures summarizing the analytical results for groundwater, surface water, sediment, and soil (**Figure 1** to **Figure 25**). The laboratory analytical reports from the most recent supplemental assessment sampling activities are included in **Attachment A**.

The table and figures are listed below.

## LIST OF TABLES

**LIST OF FIGURES**

If you have any questions or comments or require additional information, please contact Eric Sager at 727-330-9952.

Sincerely,

James Mills, M.S.
Senior Staff Professional

Eric Sager, P.G.
Principal Geologist

Copy: David Meyers, FDEP
Mike Lodato, Geosyntec
Todd Kafka, Geosyntec

Attachments

# TABLES

## TABLE 1: FDOH WATER WELLS WITHIN A 1-MILE RADIUS

**Hillsborough Community College**

| Map ID | Florida Unique Well Identification | Range from Site (miles) | Total Depth (ft BLS) | Casing Length (feet) | Well Diameter (inches) | Status | Address |
|---|---|---|---|---|---|---|---|
| 1 | AAR1760 | 0.5 to 1 | -- | -- | -- | Active | 6419 E 26th Ave |
| 2 | AAN9893 | 0.5 to 1 | -- | -- | 4 | Active | 6417 E 26th Ave |
| 3 | AAN9889 | 0.5 to 1 | -- | -- | 4 | Active | 6502 E 25th Ave |
| 4 | AAN9892 | 0.5 to 1 | -- | -- | 4 | Active | 6520 E 26th Ave |
| 5 | AAO7917 | 0.5 to 1 | -- | -- | 4 | Active | 6518 E 25th Ave |
| 6 | AAR1744 | 0.5 to 1 | -- | -- | -- | Active | 6502 E 24th Ave |
| 7 | AAN9891 | 0.5 to 1 | -- | -- | 2 | Active | 6508 E 24th Ave |
| 8 | AAO7918 | 0.5 to 1 | -- | -- | 4 | Active | 3204 N 66th St |
| 9 | AAN9888 | 0.5 to 1 | -- | -- | 4 | Active | 6515 E 24th Ave |
| 10 | AAN9886 | 0.5 to 1 | -- | -- | 4 | Active | 6500 E 23rd Ave |
| 11 | AAN9885 | 0.5 to 1 | -- | -- | 4 | Active | 6502 E 23rd Ave |
| 12 | AAN9884 | 0.5 to 1 | -- | -- | 4 | Active | 3002 N 66th St |
| 13 | AAR1731 | 0.5 to 1 | -- | -- | -- | Active | 6416 Diamond St |
| 14 | AAP0806 | 0 to 0.5 | -- | -- | 2 | Active | 6301 Diamond St |
| 15 | AAR1797 | 0 to 0.5 | -- | -- | -- | Active | 6202 Eugene Ave |
| 16 | AAO7919 | 0 to 0.5 | -- | -- | 4 | Active | 6225 Eugene St |
| 17 | AAN9890 | 0.5 to 1 | -- | -- | 4 | Active | 2806 N 66th St |
| 18 | AAM0130 | 0.5 to 1 | -- | -- | 4 | Active | 2720 N 66th St |
| 19 | AAK2079 | 0.5 to 1 | -- | -- | 2 | Active | 2709 N 67th St |
| 20 | AAM0127 | 0.5 to 1 | -- | -- | 4 | Active | 6702 E Broadway Ave |
| 21 | AAO0545 | 0.5 to 1 | -- | -- | 4 | Active | 6906 E Broadway Ave |
| 22 | AAO0544 | 0.5 to 1 | -- | -- | 4 | Active | 6915 E Broadway Ave |
| 23 | AAF6834 | 0.5 to 1 | -- | -- | 2 | Inactive | 2702 Motorsports Dr |
| 24 | AAE2547 | 0.5 to 1 | -- | -- | 2 | Active | 2703 Motorsports Dr |
| 25 | AAP2394 | 0.5 to 1 | -- | -- | -- | Active | 6221 E Broadway Ave |
| 26 | AAR1790 | 0 to 0.5 | -- | -- | -- | Active | 6220 E Broadway Ave |
| 27 | AAP0836 | 0 to 0.5 | -- | -- | -- | Active | 6219 E Broadway Ave |
| 28 | AAP2313 | 0 to 0.5 | -- | -- | 2 | Active | 2804 N 62nd St |
| 29 | AAP2314 | 0 to 0.5 | -- | -- | 2 | Active | 2810 N 62nd St |
| 30 | AAR1789 | 0 to 0.5 | -- | -- | -- | Active | 5912 E Broadway Ave |
| 31 | AAR1784 | 0 to 0.5 | -- | -- | -- | Active | 2023 N 61st St |
| 32 | AAR3871 | 0 to 0.5 | -- | -- | -- | Active | 2019 N 61st St |
| 33 | AAR1756 | 0 to 0.5 | -- | -- | -- | Active | 2011 N 61st St |
| 34 | AAR1765 | 0 to 0.5 | -- | -- | -- | Active | 2017 N 61st #A St |
| 35 | AAL3604 | 0 to 0.5 | -- | -- | -- | Active | 2006 N 61st St |
| 36 | AAI3782 | 0 to 0.5 | -- | -- | 4 | Active | 2012 N 59th St |
| 37 | AAJ1965 | 0 to 0.5 | -- | -- | -- | Active | 2003 N 59th St |
| 38 | AAI3781 | 0 to 0.5 | -- | -- | 4 | Active | 2001 N 59th St |
| 39 | AAI3780 | 0 to 0.5 | -- | -- | 2 | Active | 2002 N 60th St |
| 40 | AAR3869 | 0 to 0.5 | -- | -- | 4 | Active | 1924 N 60th St |
| 41 | AAP0493 | 0 to 0.5 | -- | -- | 4 | Active | 5811 E 10th Ave |
| 42 | AAR1769 | 0 to 0.5 | -- | -- | -- | Active | 1921 N 57th St |
| 43 | AAI3778 | 0.5 to 1 | -- | -- | 4 | Active | 1911 N 57th St |
| 44 | AAI3779 | 0.5 to 1 | -- | -- | 2 | Inactive | 1910 N 57th St |
| 45 | AAR3895 | 0.5 to 1 | -- | -- | -- | Active | 1901 N 57th St |
| 46 | AAE2595 | 0.5 to 1 | -- | -- | 2 | Active | 1909 N 57th St |
| 47 | AAH6226 | 0.5 to 1 | -- | -- | -- | Active | 1820 N 57th St |
| 48 | AAO5044 | 0 to 0.5 | -- | -- | 4 | Active | 2513 N 57th St |
| 49 | AAE2593 | 0 to 0.5 | -- | -- | 4 | Active | 2511 N 57th St |
| 50 | AAJ1907 | 0 to 0.5 | -- | -- | 4 | Active | 2507 N 57th St |
| 51 | AAJ1909 | 0 to 0.5 | -- | -- | 2 | Active | 5503 E Columbus Dr |
| 52 | AAO5046 | 0 to 0.5 | -- | -- | 4 | Active | 2519 N 55th St |
| 53 | AAL3605 | 0 to 0.5 | -- | -- | 2 | Active | 2516 N 56th St |
| 54 | AAL3606 | 0 to 0.5 | -- | -- | -- | Active | 2515 N 55th St |
| 55 | AAR1757 | 0 to 0.5 | -- | -- | -- | Active | 2516 N 55th St |
| 56 | AAR1783 | 0 to 0.5 | -- | -- | 2 | Active | 2511 N 54th St |
| 57 | AAP0494 | 0 to 0.5 | -- | -- | 4 | Active | 2507 N 54th St |
| 58 | AAO5045 | 0 to 0.5 | -- | -- | -- | Active | 2505 N 55th St |
| 59 | AAR1774 | 0 to 0.5 | -- | -- | -- | Active | 5308 E 17th Ave |
| 60 | AAR1776 | 0 to 0.5 | -- | -- | -- | Active | 2710 N 53rd St |
| 61 | AAM4312 | 0.5 to 1 | -- | -- | 4 | Active | 5110 E 14th Ave |
| 62 | AAG1866 | 0.5 to 1 | -- | -- | 2 | Active | 4911 E 10th Ave |
| 63 | AAM4301 | 0.5 to 1 | -- | -- | 2 | Active | 2001 N 49th St |
| 64 | AAO7874 | 0.5 to 1 | -- | -- | 2 | Inactive | 4807 E 14th Ave |
| 65 | AAR1761 | 0.5 to 1 | -- | -- | -- | Active | 2303 N 47th St |
| 66 | AAR1762 | 0.5 to 1 | -- | -- | -- | Active | 2305 N 47th St |
| 67 | AAL9312 | 0.5 to 1 | -- | -- | 4 | Active | 2310 N 47th St |

## TABLE 1: FDOH WATER WELLS WITHIN A 1-MILE RADIUS

**Hillsborough Community College**

| Map ID | Florida Unique Well Identification | Range from Site (miles) | Total Depth (ft BLS) | Casing Length (feet) | Well Diameter (inches) | Status | Address |
|---|---|---|---|---|---|---|---|
| 68 | AAI3734 | 0.5 to 1 | 150 | -- | 4 | Active | 4906 E 18th Ave |
| 69 | AAN6458 | 0.5 to 1 | -- | -- | 4 | Inactive | 2916 Carioca Ct |
| 70 | AAN6459 | 0.5 to 1 | -- | -- | 2 | Active | 2911 N 46th St |
| 71 | AAO8688 | 0 to 0.5 | -- | -- | 2 | Active | 2904 N 53rd St |
| 72 | AAR1775 | 0 to 0.5 | -- | -- | -- | Active | 5223 E 20th Ave |
| 73 | AAL6687 | 0 to 0.5 | -- | -- | 4 | Active | 5213 E 20th Ave |
| 74 | AAL6686 | 0 to 0.5 | -- | -- | 3 | Active | 5208 E 20th Ave |
| 75 | AAO4615 | 0.5 to 1 | -- | -- | -- | Active | 5106 E 21st Ave |
| 76 | AAR1786 | 0.5 to 1 | -- | -- | 2 | Active | 3107 N 50 St |
| 77 | AAH3281 | 0.5 to 1 | -- | -- | 2 | Inactive | 3203 N 49th St |
| 78 | AAO4616 | 0.5 to 1 | -- | -- | 2 | Active | 3205 N 49th St |
| 79 | AAO4618 | 0.5 to 1 | -- | -- | -- | Active | 3204 N 49th St |
| 80 | AAH3282 | 0.5 to 1 | -- | -- | 2 | Inactive | 3209 N 48th St |
| 81 | AAO4617 | 0.5 to 1 | -- | -- | 2 | Active | 3218 N 49th St |
| 82 | AAH3280 | 0.5 to 1 | -- | -- | 2 | Active | 3401 N 50th St |
| 83 | AAL4903 | 0.5 to 1 | -- | -- | 2 | Active | 3408 N 51st St |
| 84 | AAL5044 | 0.5 to 1 | -- | -- | 4 | Active | 3411 N Temple |
| 85 | AAL4904 | 0.5 to 1 | -- | -- | 2 | Active | 3415 N Temple St |
| 86 | AAK3619 | 0.5 to 1 | -- | -- | 2 | Active | 3412 N Phillips St |
| 87 | AAH3277 | 0.5 to 1 | -- | -- | 4 | Active | 3415 N Phillips St |
| 88 | AAR1766 | 0.5 to 1 | -- | -- | -- | Active | 3418 N 53rd St |
| 89 | AAR1767 | 0.5 to 1 | -- | -- | -- | Active | 3410 N 53rd St |
| 90 | AAN0340 | 0.5 to 1 | -- | -- | 2 | Active | 3411 N 53rd St |
| 91 | AAH3275 | 0.5 to 1 | -- | -- | 4 | Active | 3411 N 53rd St |
| 92 | AAR1781 | 0.5 to 1 | -- | -- | -- | Active | 3608 N Phillips St |
| 93 | AAL4905 | 0.5 to 1 | -- | -- | 4 | Active | 3611 N 51st St |
| 94 | AAL5090 | 0.5 to 1 | -- | -- | 4 | Active | 3616 Temple St |
| 95 | AAL4909 | 0.5 to 1 | -- | -- | 4 | Active | 3615 N Temple St |
| 96 | AAL4908 | 0.5 to 1 | -- | -- | 4 | Active | 3619 N Temple St |
| 97 | AAR1780 | 0.5 to 1 | -- | -- | -- | Active | 3620 Temple St |
| 98 | AAL4907 | 0.5 to 1 | -- | -- | 2 | Active | 3645 N 50th St |
| 99 | AAL4906 | 0.5 to 1 | -- | -- | 4 | Active | 3623 N Temple St |
| 100 | AAR1782 | 0.5 to 1 | -- | -- | -- | Active | 5101 E 30th Ave |
| 101 | AAJ1948 | 0.5 to 1 | -- | -- | -- | Active | 3721 N Temple St |
| 102 | AAO4614 | 0.5 to 1 | -- | -- | 4 | Active | 5107 E 32nd Ave |
| 103 | AAO4628 | 0.5 to 1 | -- | -- | 4 | Active | 3723 Phillips St |
| 104 | AAN0339 | 0.5 to 1 | -- | -- | 4 | Active | 3723 Whitter St |
| 105 | AAR1763 | 0.5 to 1 | -- | -- | -- | Active | 3818 Phillips St |
| 106 | AAR3894 | 0.5 to 1 | -- | -- | -- | Active | 3820 N 52nd St |

**Notes:**

1. FDOH indicates Florida Department of Health.
2. ft BLS indicates feet below land surface.
3. -- indicates information not specified through FDOH Well Surveillance Program website.
4. Active indcates the well is used on a regular basis or will be used within a reasonable period of time (2 to 3 months).
5. Inactive indicates the well has not been regularly used within the past 6 to 12 months but is maintained in such a state that it could be used.

## TABLE 2: SAMPLING LOCATIONS, MATRICES, ANALYTES, RATIONALE, AND CRITERIA
**Hillsborough Community College**

| Location ID | Sample ID | Matrix | Depth (ft BLS) | Method | Analyses | Rationale | Criteria |
|---|---|---|---|---|---|---|---|
| **Soil Sampling** | | | | | | | |
| SB-1 | SB-1 (2-3') | Soil | 2-3 | HA | PFAS | Delineation Sampling | Provisional Soil Cleanup Target Levels |
| SB-2 | SB-2 (2-3') | | 2-3 | | | | |
| SB-3 | SB-3 (0.5-2') | | 0.5-2 | | | | |
| | SB-3 (2-3') | | 2-3 | | | | |
| SB-4 | SB-4 (0.5-2') | | 0.5-2 | | | | |
| | SB-4 (2-3') | | 2-3 | | | | |
| SB-5 | SB-5 (0.5-1.5') | | 0.5-1.5 | | | | |
| SB-6 | SB-6 (0-0.5') | | 0-0.5 | | | | |
| | SB-6 (0.5-2') | | 0.5-2 | | | | |
| | SB-6 (2-3') | | 2-3 | | | | |
| SB-7 | SB-7 (2-3') | | 2-3 | | | | |
| SB-8 | SB-8 (0-0.5') | | 0-0.5 | | | | |
| | SB-8 (0.5-2') | | 0.5-2 | | | | |
| | SB-8 (2-3') | | 2-3 | | | | |
| SB-9 | SB-9 (2-3') | | 2-3 | | | | |
| SB-10 | SB-10 (0-0.5') | | 0-0.5 | | | | |
| | SB-10 (0.5-2') | | 0.5-2 | | | | |
| | SB-10 (2-3') | | 2-3 | | | | |
| SB-11 | SB-11 (0-0.5') | | 0-0.5 | | | | |
| | SB-11 (0.5-2') | | 0.5-2 | | | | |
| | SB-11 (2-3') | | 2-3 | | | | |
| SB-12 | SB-12 (0-0.5') | | 0-0.5 | | | | |
| | SB-12 (0.5-2') | | 0.5-2 | | | | |
| | SB-12 (2-3') | | 2-3 | | | | |
| SB-13 | SB-13 (0-0.5') | | 0-0.5 | | | | |
| | SB-13 (0.5-2') | | 0.5-2 | | | | |
| | SB-13 (2-3') | | 2-3 | | | | |
| SB-14 | SB-14 (0-0.5') | | 0-0.5 | | | | |
| | SB-14 (0.5-2') | | 0.5-2 | | | | |
| | SB-14 (2-3') | | 2-3 | | | | |
| SB-15 | SB-15 (0-0.5') | | 0-0.5 | | | | |
| | SB-15 (0.5-2') | | 0.5-2 | | | | |
| | SB-15 (2-3') | | 2-3 | | | | |
| SB-16 | SB-16 (0-0.5') | | 0-0.5 | | | | |
| | SB-16 (0.5-2') | | 0.5-2 | | | | |
| | SB-16 (2-3') | | 2-3 | | | | |
| SB-17 | SB-17 (0-0.5') | | 0-0.5 | | | | |
| | SB-17 (0.5-2') | | 0.5-2 | | | | |
| | SB-17 (2-3') | | 2-3 | | | | |
| SB-18 | SB-18 (0-0.5') | | 0-0.5 | | | | |
| | SB-18 (0.5-2') | | 0.5-2 | | | | |
| | SB-18 (2-3') | | 2-3 | | | | |
| SB-19 | SB-19 (0-0.5') | | 0-0.5 | | | | |
| | SB-19 (0.5-2') | | 0.5-2 | | | | |
| | SB-19 (2-3') | | 2-3 | | | | |
| SB-20 | SB-20 (0-0.5') | | 0-0.5 | | | | |
| | SB-20 (0.5-2') | | 0.5-2 | | | | |
| | SB-20 (2-3') | | 2-3 | | | | |
| SB-21 | SB-21 (0-0.5') | | 0-0.5 | | | | |
| | SB-21 (0.5-2') | | 0.5-2 | | | | |
| | SB-21 (2-3') | | 2-3 | | | | |
| SB-22 | SB-22 (0-0.5') | | 0-0.5 | | | | |
| | SB-22 (0.5-2') | | 0.5-2 | | | | |
| | SB-22 (2-3') | | 2-3 | | | | |
| SB-23 | SB-23 (0-0.5') | | 0-0.5 | | | | |
| | SB-23 (0.5-2') | | 0.5-2 | | | | |
| | SB-23 (2-3') | | 2-3 | | | | |
| SB-24 | SB-24 (0-0.5') | | 0-0.5 | | | | |
| | SB-24 (0.5-2') | | 0.5-2 | | | | |
| | SB-24 (2-3') | | 2-3 | | | | |

## TABLE 2: SAMPLING LOCATIONS, MATRICES, ANALYTES, RATIONALE, AND CRITERIA
**Hillsborough Community College**

| Location ID | Sample ID | Matrix | Depth (ft BLS) | Method | Analyses | Rationale | Criteria |
|---|---|---|---|---|---|---|---|
| SB-25 | SB-25 (0-0.5') | Soil | 0-0.5 | HA | PFAS | Delineation Sampling | Provisional Soil Cleanup Target Levels |
| | SB-25 (0.5-2') | | 0.5-2 | | | | |
| | SB-25 (2-3') | | 2-3 | | | | |
| SB-26 | SB-26 (0.5-2') | | 0.5-2 | | | | |
| | SB-26 (2-3') | | 2-3 | | | | |
| SB-27 | SB-27 (0.5-2') | | 0.5-2 | | | | |
| | SB-27 (2-3') | | 2-3 | | | | |
| SB-28 | SB-28 (0.5-2') | | 0.5-2 | | | | |
| | SB-28 (2-3') | | 2-3 | | | | |
| SB-29 | SB-29 (0-0.5') | | 0-0.5 | | | | |
| | SB-29 (0.5-2') | | 0.5-2 | | | | |
| | SB-29 (2-3') | | 2-3 | | | | |
| SB-30 | SB-30 (0-0.5') | | 0-0.5 | | | | |
| | SB-30 (0.5-2') | | 0.5-2 | | | | |
| | SB-30 (2-3') | | 2-3 | | | | |
| SB-31 | SB-31 (0.5-2') | | 0.5-2 | | | | |
| | SB-31 (2-3') | | 2-3 | | | | |
| SB-32 | SB-32 (0-0.5') | | 0-0.5 | | | | |
| | SB-32 (0.5-2') | | 0.5-2 | | | | |
| | SB-32 (2-3') | | 2-3 | | | | |
| SB-33 | SB-33 (0-0.5') | | 0-0.5 | | | | |
| | SB-33 (0.5-2') | | 0.5-2 | | | | |
| | SB-33 (2-3') | | 2-3 | | | | |
| SB-34 | SB-34 (0-0.5') | | 0-0.5 | | | | |
| | SB-34 (0.5-2') | | 0.5-2 | | | | |
| | SB-34 (2-3') | | 2-3 | | | | |
| SB-35 | SB-35 (0-0.5') | | 0-0.5 | | | | |
| | SB-35 (0.5-2') | | 0.5-2 | | | | |
| | SB-35 (2-3') | | 2-3 | | | | |
| SB-36 | SB-36 (0-0.5') | | 0-0.5 | | | | |
| | SB-36 (0.5-2') | | 0.5-2 | | | | |
| | SB-36 (2-3') | | 2-3 | | | | |
| SB-37 | SB-37 (0-0.5') | | 0-0.5 | | | | |
| | SB-37 (0.5-2') | | 0.5-2 | | | | |
| | SB-37 (2-3') | | 2-3 | | | | |
| SB-38 | SB-38 (0-0.5') | | 0-0.5 | | | | |
| | SB-38 (0.5-2') | | 0.5-2 | | | | |
| | SB-38 (2-3') | | 2-3 | | | | |
| SB-39 | SB-39 (0-0.5') | | 0-0.5 | | | | |
| | SB-39 (0.5-2') | | 0.5-2 | | | | |
| | SB-39 (2-3') | | 2-3 | | | | |
| SB-40 | SB-40 (0-0.5') | | 0-0.5 | | | | |
| | SB-40 (0.5-2') | | 0.5-2 | | | | |
| | SB-40 (2-3') | | 2-3 | | | | |
| SB-41 | SB-41 (0-0.5') | | 0-0.5 | | | | |
| | SB-41 (0.5-2') | | 0.5-2 | | | | |
| | SB-41 (2-3') | | 2-3 | | | | |
| SB-42 | SB-42 (0-0.5') | | 0-0.5 | | | | |
| | SB-42 (0.5-2') | | 0.5-2 | | | | |
| | SB-42 (2-3') | | 2-3 | | | | |
| SB-43 | SB-43 (0-0.5') | | 0-0.5 | | | | |
| | SB-43 (0.5-2') | | 0.5-2 | | | | |
| | SB-43 (2-3') | | 2-3 | | | | |
| SB-44 | SB-44 (0-0.5') | | 0-0.5 | | | | |
| | SB-44 (0.5-2') | | 0.5-2 | | | | |
| | SB-44 (2-3') | | 2-3 | | | | |
| SB-45 | SB-45 (0-0.5') | | 0-0.5 | | | | |
| | SB-45 (0.5-2') | | 0.5-2 | | | | |
| | SB-45 (2-2.5') | | 2-2.5 | | | | |
| SB-46 | SB-46 (0-0.5') | | 0-0.5 | | | | |
| | SB-46 (0.5-2') | | 0.5-2 | | | | |
| | SB-46 (2-3') | | 2-3 | | | | |
| SB-47 | SB-47 (0-0.5') | | 0-0.5 | | | | |
| | SB-47 (0.5-2') | | 0.5-2 | | | | |
| | SB-47 (2-3') | | 2-3 | | | | |

## TABLE 2: SAMPLING LOCATIONS, MATRICES, ANALYTES, RATIONALE, AND CRITERIA
**Hillsborough Community College**

| Location ID | Sample ID | Matrix | Depth (ft BLS) | Method | Analyses | Rationale | Criteria |
|---|---|---|---|---|---|---|---|
| SB-48 | SB-48 (0-0.5') | Soil | 0-0.5 | HA | PFAS | Delineation Sampling | Provisional Soil Cleanup Target Levels |
| | SB-48 (0.5-2') | | 0.5-2 | | | | |
| | SB-48 (2-3') | | 2-3 | | | | |
| SB-49 | SB-49 (0-0.5') | | 0-0.5 | | | | |
| | SB-49 (0.5-2') | | 0.5-2 | | | | |
| | SB-49 (2-3') | | 2-3 | | | | |
| SS-1 | SS-1 (0-1') | | 0-1 | | | Historical AFFF Use Areas | |
| | SS-1 (1-2') | | 1-2 | | | | |
| SS-2 | SS-2 (0-1') | | 0-1 | | | | |
| | SS-2 (1-2') | | 1-2 | | | | |
| SS-3 | SS-3 (0-1') | | 0-1 | | | | |
| | SS-3 (1-2') | | 1-2 | | | | |
| SS-4 | SS-4 (0-1') | | 0-1 | | | | |
| | SS-4 (1-2') | | 1-2 | | | | |
| SS-5 | SS-5 (0-1') | | 0-1 | | | | |
| | SS-5 (1-2') | | 1-2 | | | | |
| SS-6 | SS-6 (0-1') | | 0-1 | | | | |
| | SS-6 (1-2') | | 1-2 | | | | |
| SS-7 | SS-7 (0-1') | | 0-1 | | | | |
| | SS-7 (1-2') | | 1-2 | | | | |
| SS-8 | SS-8 (0-1') | | 0-1 | | | | |
| | SS-8 (1-2') | | 1-2 | | | | |
| SS-9 | SS-9 (0-1') | | 0-1 | | | | |
| | SS-9 (1-2') | | 1-2 | | | | |
| SS-10 | SS-10 (0-1') | | 0-1 | | | | |
| | SS-10 (1-2') | | 1-2 | | | | |
| SS-11 | SS-11 (0-1') | | 0-1 | | | | |
| | SS-11 (1-2') | | 1-2 | | | | |
| PV-3 | PV-3 (0-0.1') | Pavement (asphalt) | 0-0.1 | | | Delineation Sampling | |
| PV-4 | PV-4 (0-0.1') | | | | | | |
| PV-5 | PV-5 (0-0.1') | | | | | | |
| RB-3 | RB-3 (0.1-0.5') | Road Base | 0.1-0.5 | | | | |
| RB-4 | RB-4 (0.1-0.5') | | | | | | |
| RB-5 | RB-5 (0.1-0.5') | | | | | | |
| **Sediment Sampling** | | | | | | | |
| Sed-1 | Sed-1 (0-1') | Sediment | 0-1 | HA | PFAS | Historical AFFF Use Areas | N/A |
| Sed-2 | Sed-2 (0-1') | | 0-1 | | | | |
| Sed-3 | Sed-3 (0-1') | | 0-1 | | | | |
| Sed-4 | Sed-4 (0-0.5') | | 0-0.5 | Grab from Storm Grate | | | |
| Sed-5 | SED 5 | | 0-1 | HA | | | |
| Sed-6 | SED 6 | | | | | | |
| Sed-7 | SED 7 | | | | | | |
| **Surface Water Sampling** | | | | | | | |
| SW-1 | SW-1 | Surface Water | N/A | Grab | PFAS | Historical AFFF Use Areas | N/A |
| | DUP 1 | | | | | | |
| SW-2 | SW-2 | | | | | | |
| | DUP-4 (SW-2-DUP) | | | | | | |
| SW-3 | SW-3 | | | | | | |
| SW-4 | SW-4 | | | | | | |

## TABLE 2: SAMPLING LOCATIONS, MATRICES, ANALYTES, RATIONALE, AND CRITERIA
**Hillsborough Community College**

| Location ID | Sample ID | Matrix | Screen Interval (ft BLS) | Method | Analyses | Rationale | Criteria |
|---|---|---|---|---|---|---|---|
| **Monitoring Wells** | | | | | | | |
| KK-7 (12-17') | KK-7 (12-17') | Groundwater | 12-17 | Peristaltic Pump | PFAS | Off-site presence or absence | Provisional Groundwater Cleanup Target Levels |
| KK-8A (10-15') | KK-8A (10-15') | | 10-15 | | | | |
| | DUP5 (10-15') | | | | | | |
| KK-FL1 (57-67') | KK-FL1 (57-67') | | 57-67 | | | | |
| KK-FL2 (61-71') | KK-FL2 (61-71') | | 61-71 | | | | |
| DEPMW-1 (2-12') | DEPMW-1 (2-12) | | 2-12 | | | Delineation Sampling | |
| DEPMW-2 (2-12') | DEPMW-2 (2-12) | | | | | | |
| DEPMW-3 (2-12') | DEPMW-3 (2-12) | | | | | | |
| DEPMW-4 (2-12') | DEPMW-4 (2-12) | | | | | | |
| DEPMW-5 (2-12') | DEPMW-5 (2-12) | | | | | | |
| DEPMW-6 (2-12') | DEPMW-6 (2-12) | | | | | | |
| DEPMW-7R (2-12') | DEPMW-7R (2-12) | | | | | | |
| DEPMW-8 (2-12') | DEPMW-8 (2-12) | | | | | | |
| DEPMW-9 (2-12') | DEPMW-9 (2-12) | | | | | | |
| DEPMW-10 (2-12') | DEPMW-10 (2-12) | | | | | | |
| DEPMW-11 (2-12') | DEPMW-11 (2-12) | | | | | | |
| DEPMW-12 (110-130') | DEPMW-12 (110-130) | | 100-120 or 110-130 | | | | |
| DEPMW-13 (100-120') | DEPMW-13 (100-120) | | | | | | |
| | DUP-7 (100-120) | | | | | | |
| DEPMW-14 (110-130') | DEPMW-14 (110-130) | | | | | | |
| DEPMW-15 (110-130') | DEPMW-15 (110-130) | | | | | | |
| DEPMW-16 (36-56') | DEPMW-16 (36-56) | | 36-56 | | | | |
| | DUP-8 (36-56) | | | | | | |
| DEPMW-17 (27-47') | DEPMW-17 (27-47) | | 27-47 | | | | |
| DEPMW-18 (2-12') | DEPMW-18 (2-12) | | 2-12 | | | | |
| DEPMW-19 (32-52') | DEPMW-19 (32-52) | | 32-52 | | | | |
| DEPMW-20 (2-12') | DEPMW-20 (2-12) | | 2-12 | | | | |
| DEPMW-21 (2-12') | DEPMW-21 (2-12) | | | | | | |
| DEPMW-22 (40-60') | DEPMW-22 (40-60) | | 40-60 | | | | |
| DEPMW-23 (32-52') | DEPMW-23 (32-52) | | 32-52 | | | | |
| **Temporary Monitoring Wells** | | | | | | | |
| TMW-1 | TMW1 (2-12') | Groundwater | 2-12 | DPT; Peristaltic Pump | PFAS | Historical AFFF Use Areas | Provisional Groundwater Cleanup Target Level |
| | DUP 2 (2-12') | | | | | | |
| TMW-2 | TMW-2 (2-12') | | | | | | |
| **Supply Well** | | | | | | | |
| Supply Well | Supply Well (TBD) | Groundwater | TBD | N/A | PFAS | Historical AFFF Use Areas | Provisional Groundwater Cleanup Target Level |
| | DUP-3 (TBD) | | | | | | |

## TABLE 2: SAMPLING LOCATIONS, MATRICES, ANALYTES, RATIONALE, AND CRITERIA
**Hillsborough Community College**

| Laboratory Quality Assurance/Quality Control Samples | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Type** | **Sample ID** | **Matrix** | **Equipment Sampled** | **Analysis** | **Rationale** | **Criteria** |
| Equipment Blanks | EQB 1 | Water | Peristaltic pump with tubing | PFAS | Assess potential sources of contamination from groundwater sampling equipment | N/A |
| | EQB 2 | | Hand auger bucket | | Assess potential sources of contamination from HA sampling equipment | |
| | EQB 3 | | | | | |
| | EQB 4 | | | | | |
| | EQB 5 | | | | | |
| | EQB 6 | | Direct push technology core barrel with liner | | Assess potential sources of contamination from monitoring well installation | |
| | EQB 7 | | Hand auger bucket | | Assess potential sources of contamination from HA sampling equipment | |
| | EQB 8 | | | | | |
| | EQB 9 | | Submersible pump | | Assess potential sources of contamination from monitoring well installation | |
| | EQB 10 | | Peristaltic pump with tubing | | Assess potential sources of contamination from monitoring well sampling | |
| | EQB 11 | | 6" sonic casing; lead rod | | Assess potential source of contamination from sonic shallow well install | |
| | EQB 12 | | 8" sonic casing; lead rod | | Assess potential source of contamination from sonic intermediate well install | |
| | EQB 13 | | Hand auger bucket | | Assess potential sources of contamination from HA sampling equipment | |
| | EQB 14 | | | | | |
| | EQB 15 | | | | | |
| | EQB 16 | | | | | |
| | EQB 17 | | | | | |
| | EQB 18 | | Peristaltic pump with tubing | | Assess potential sources of contamination from monitoring well sampling | |
| | EQB 19 | | | | | |
| Field Reagent Blanks | FRB 1 | | N/A | | Evaluate potential impact of sample cross-contamination | |
| | FRB 2 | | | | | |
| | FRB 3 | | | | | |
| | FRB 4 | | | | | |
| | FRB 5 | | | | | |
| | FRB 6 | | | | | |
| | FRB 7 | | | | | |
| | FRB 8 | | | | | |
| | FRB 9 | | | | | |
| | FRB 10 | | | | | |

| Investigation Derived Waste Sample | | | | | | |
|---|---|---|---|---|---|---|
| **Drum Number** | **Sample ID** | **Matrix** | **IDW Source** | **Analysis** | **Rationale** | **Criteria** |
| 1 | IDW-1-Water | Water | Decontamination and purge water | VOCs, SVOCs, RCRA metals, PFAS | Waste Characterization | N/A |
| Composite | IDW-2 | Soil | Soil Cuttings | | | |
| | IDW-3 | Water | Monitoring well development water | | | |
| 55 | IDW-Water | | Monitoring well purge water | | | |
| 51 | IDW-Soil | Soil | Sonic drill cuttings from DEPMW-17 | | | |

**Notes:**

1. ft BLS indicates feet below land surface.
2. SB and SS indicates soil boring.
3. Sed indicates sediment.
4. SW indicates surface water.
5. MW indicates monitoring well.
6. HA indicates hand auger.
7. PFAS indicates per- and polyfluoroalkyl substances.
8. N/A indicates not applicable.
9. DUP indicates duplicate.
10. EQB indicates equipment blank.
11. FRB indicates field reagent blank.
12. IDW indicates investigation derived waste.
13. VOCs indicate volatile organic compounds.
14. SVOCs indicate semi-volatile organic compounds.
15. RCRA indicates Resource Conservation and Recovery Act.
16. AFFF indicates aqueous film forming foam.
17. PV indicates pavement (asphalt).
18. RB indicates road base.
19. TBD indicates to be determined.
20. PV-1, PV-2, RB-1, and RB-2 were not collected.
21. TMW indicates temporary monitoring well.

**TABLE 3: SOIL ANALYTICAL RESULTS FOR PFAS COMPOUNDS**
**Hillsborough Community College**

| Sample Location | Sample ID | Sample Date | Sample Interval (ft BLS) | PFOS | PFOA | 4:2 FTS | 6:2 FTS | 8:2 FTS | NEtFOSAA | NMeFOSAA | PFBS | PFDS | PFDA | PFDoA | PFHpS | PFHpA | PFHxS | PFHxA | PFNS | PFNA | PFPeS | PFPeA | PFTeA | PFTriA | PFUnA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Provisional Leachability SCTL | | | | 7 | 2 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Provisional Residential SCTL | | | | 1,300 | 1,300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Provisional Industrial SCTL | | | | 25,000 | 25,000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SS-1 | SS-1 (0-1') | 3/27/2019 | 0 - 1 | **170** | 1.8 I | NA | NA | NA | 0.14 U | 0.07 U | 1.4 U | NA | 2.6 | 0.57 | NA | 3.1 | 18 | 5.5 I | NA | 2.4 | NA | NA | 0.14 IJ | 0.21 IJ | 1.9 |
| | SS-1 (1-2') | | 1 - 2 | 5.7 | 1.1 U | NA | NA | NA | 0.11 U | 0.05 U | 1.1 U | NA | 0.12 I | 0.07 I | NA | 2.3 | 31 | 3.3 I | NA | 0.11 U | NA | NA | 0.05 UJ | 0.05 UJ | 0.12 I |
| SB-1 | SB-1 (2-3') | 1/27/2020 | 2 - 3 | 7.2 | 0.74 | 0.24 U | 3.5 | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 I | 0.63 | 1.2 | 0.57 | 0.12 U | 0.98 | 0.12 U | 1.1 | 0.12 U | 0.12 U | 0.12 U |
| SS-2 | SS-2 (0-1') | 3/27/2019 | 0 - 1 | **120** | 1.7 IJ | NA | NA | NA | 0.11 U | 0.05 U | 1.1 U | NA | 0.91 | 0.21 I | NA | 1.5 | 2.1 | 1.9 I | NA | 5.1 J | NA | NA | 0.06 I | 0.06 I | 0.48 |
| | SS-2 (1-2') | | 1 - 2 | **370** | **5.7** | NA | NA | NA | 0.11 U | 0.05 U | 1.2 I | NA | 0.06 I | 0.05 U | NA | 3.0 | 18 | 5.5 | NA | 10 | NA | NA | 0.05 U | 0.05 U | 0.06 I |
| SB-2 | SB-2 (2-3') | 1/27/2020 | 2 - 3 | **55** | **2.6** | 0.23 U | 48 | 24 | 0.12 U | 0.12 U | 0.33 I | 0.12 U | 2.1 | 0.49 | 0.68 | 2.9 | 3.8 | 2.3 | 0.12 U | 2.2 | 0.44 I | 4.1 | 0.21 I | 0.12 U | 0.70 |
| SS-3 | SS-3 (0-1') | 3/28/2019 | 0 - 1 | 2.2 | 1.0 UJ | NA | NA | NA | 0.10 UJ | 0.05 UJ | 1.0 U | NA | 0.09 IJ | 0.05 UJ | NA | 0.21 U | 0.29 | 1.0 UJ | NA | 0.20 IJ | NA | NA | 0.05 UJ | 0.05 UJ | 0.05 UJ |
| | SS-3 (1-2') | | 1 - 2 | 0.46 U | 1.1 U | NA | NA | NA | 0.11 U | 0.06 U | 1.1 U | NA | 0.06 U | 0.06 U | NA | 0.23 U | 0.23 I | 1.1 U | NA | 0.11 U | NA | NA | 0.06 UJ | 0.06 UJ | 0.06 U |
| SS-4 | SS-4 (0-1') | 3/28/2019 | 0 - 1 | 0.57 I | **11 U** | NA | NA | NA | 0.11 U | 0.05 U | 1.1 U | NA | 0.05 U | 0.05 U | NA | 2.2 U | 0.05 U | 11 U | NA | 0.54 U | NA | NA | 0.05 UJ | 0.05 UJ | 0.05 U |
| | SS-4 (1-2') | | 1 - 2 | 0.46 U | 1.1 U | NA | NA | NA | 0.11 U | 0.06 U | 1.1 U | NA | 0.06 U | 0.06 U | NA | 0.23 U | 0.09 I | 1.1 U | NA | 0.11 U | NA | NA | 0.06 UJ | 0.06 UJ | 0.06 U |
| SS-5 | SS-5 (0-1') | 3/28/2019 | 0 - 1 | 4.4 | **3.1 IJ** | NA | NA | NA | 0.11 U | 0.06 U | 1.1 U | NA | 0.50 J | 0.09 IJ | NA | 3.2 J | 4.1 | 4.2 IJ | NA | 0.85 J | NA | NA | 0.06 UJ | 0.06 UJ | 0.35 J |
| | SS-5 (1-2') | | 1 - 2 | 4.4 | 2.1 I | NA | NA | NA | 0.11 U | 0.06 U | 1.1 U | NA | 0.06 U | 0.06 U | NA | 1.4 | 3.3 | 1.6 I | NA | 0.18 I | NA | NA | 0.06 UJ | 0.06 UJ | 0.06 U |
| SS-6 | SS-6 (0-1') | 3/28/2019 | 0 - 1 | 3.0 | 1.0 UJ | NA | NA | NA | 0.10 U | 0.05 U | 1.0 U | NA | 0.21 IJ | 0.09 IJ | NA | 0.29 IJ | 0.24 | 1.0 UJ | NA | 0.16 IJ | NA | NA | 0.05 UJ | 0.05 UJ | 0.15 IJ |
| | SS-6 (1-2') | | 1 - 2 | 0.61 I | 1.1 U | NA | NA | NA | 0.11 U | 0.06 U | 1.1 U | NA | 0.06 U | 0.06 U | NA | 0.22 U | 0.16 I | 1.1 U | NA | 0.11 U | NA | NA | 0.06 UJ | 0.06 UJ | 0.06 U |
| SS-7 | SS-7 (0-1') | 3/28/2019 | 0 - 1 | **190** | 1.1 I | NA | NA | NA | 0.11 U | 0.06 U | 1.8 I | NA | 0.81 | 0.21 I | NA | 0.84 I | 13 | 1.3 I | NA | 2.4 | NA | NA | 0.07 IJ | 0.11 IJ | 0.77 |
| | SS-7 (1-2') | | 1 - 2 | **380** | **3.8 I** | NA | NA | NA | 0.12 U | 0.06 U | 1.2 U | NA | 0.06 U | 0.06 U | NA | 1.8 | 25 | 1.9 I | NA | 4.5 | NA | NA | 0.06 UJ | 0.07 IJ | 0.06 U |
| SB-7 | SB-7 (2-3') | 1/27/2020 | 2 - 3 | **29** | 2.1 | 0.24 U | 31 | 0.24 U | 0.12 U | 0.12 U | 5.4 | 0.12 U | 0.12 I | 0.12 U | 0.57 | 2.7 | 24 | 5.8 | 0.12 U | 0.17 I | 6.6 | 8.3 | 0.12 U | 0.12 U | 0.12 U |
| SS-8 | SS-8 (0-1') | 3/28/2019 | 0 - 1 | **8.1** | 1.4 I | NA | NA | NA | 0.11 U | 0.06 U | 1.1 U | NA | 0.37 | 0.17 I | NA | 1.9 | 10 | 2.8 I | NA | 0.28 | NA | NA | 0.06 UJ | 0.06 IJ | 0.35 |
| | SS-8 (1-2') | | 1 - 2 | 1.5 I | 1.1 U | NA | NA | NA | 0.11 U | 0.06 U | 1.1 U | NA | 0.06 U | 0.06 U | NA | 0.75 I | 2.5 | 1.1 U | NA | 0.11 U | NA | NA | 0.06 UJ | 0.06 UJ | 0.06 U |
| SS-9 | SS-9 (0-1') | 3/28/2019 | 0 - 1 | **430** | 2.0 I | NA | NA | NA | 0.11 U | 0.05 U | 1.8 I | NA | 1.8 | 0.19 I | NA | 2.8 | 22 | 9.9 | NA | 3.7 | NA | NA | 0.07 IJ | 0.10 IJ | 2.2 |
| | SS-9 (1-2') | | 1 - 2 | **210** | 2.3 I | NA | NA | NA | 0.12 U | 0.06 U | 1.2 U | NA | 0.36 | 0.06 U | NA | 4.4 | 30 | 7.6 | NA | 1.1 | NA | NA | 0.06 UJ | 0.06 UJ | 0.14 I |
| SB-9 | SB-9 (2-3') | 1/28/2020 | 2 - 3 | **270** | **4.9** | 0.25 U | 200 | 2.0 | 0.13 U | 0.13 U | 13 | 0.13 U | 0.42 I | 0.13 U | 5.3 | 12 | 150 | 51 | 0.13 U | 0.75 | 16 | 26 | 0.13 U | 0.13 U | 0.19 I |
| SS-10 | SS-10 (0-1') | 3/28/2019 | 0 - 1 | 5.9 | 1.1 U | NA | NA | NA | 0.11 U | 0.06 U | 1.1 U | NA | 0.06 I | 0.06 U | NA | 0.22 U | 0.54 | 1.1 U | NA | 0.11 U | NA | NA | 0.06 UJ | 0.06 UJ | 1.1 |
| | SS-10 (1-2') | | 1 - 2 | 0.45 U | 1.1 U | NA | NA | NA | 0.11 U | 0.06 U | 1.1 U | NA | 0.06 U | 0.06 U | NA | 0.22 U | 0.10 I | 1.1 U | NA | 0.11 U | NA | NA | 0.06 UJ | 0.06 UJ | 0.06 U |
| SS-11 | SS-11 (0-1') | 3/28/2019 | 0 - 1 | 1.3 IJ | 1.1 U | NA | NA | NA | 0.11 UJ | 0.06 UJ | 1.1 UJ | NA | 0.10 I | 0.09 I | NA | 0.22 U | 0.07 IJ | 1.1 U | NA | 0.11 U | NA | NA | 0.06 UJ | 0.06 UJ | 0.06 U |
| | SS-11 (1-2') | | 1 - 2 | 0.76 I | 1.1 U | NA | NA | NA | 0.11 U | 0.06 U | 1.1 U | NA | 0.06 U | 0.06 U | NA | 0.22 U | 0.06 U | 1.1 U | NA | 0.11 U | NA | NA | 0.06 UJ | 0.06 UJ | 0.06 U |
| SB-3 | SB-3 (0.5-2') | 1/28/2020 | 0.5 - 2 | 0.23 U | 0.12 U | 0.23 U | 0.47 U | 0.23 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.06 U | 0.07 I | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.23 U | 0.12 U | 0.12 U | 0.12 U |
| | SB-3 (2-3') | | 2 - 3 | 0.24 U | 0.12 U | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.06 U | 0.08 I | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U |
| SB-4 | SB-4 (0.5-2') | 1/28/2020 | 0.5 - 2 | 3.5 | 0.30 I | 0.23 U | 0.46 U | 0.23 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.40 | 0.27 | 0.34 I | 0.11 U | 0.11 U | 0.11 U | 0.54 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-4 (2-3') | | 2 - 3 | 2.5 | 0.19 I | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.22 I | 0.26 | 0.41 I | 0.12 U | 0.12 U | 0.12 U | 0.67 I | 0.12 U | 0.12 U | 0.12 U |
| SB-5 | SB-5 (0.5-1.5') | 1/28/2020 | 0.5 - 1.5 | 0.26 I | 0.12 U | 0.23 U | 0.46 U | 0.23 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.23 U | 0.12 U | 0.12 U | 0.12 U |
| SB-6 | SB-6 (0-0.5') | 1/27/2020 | 0 - 0.5 | 0.98 | 0.12 U | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.17 I | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 I | 0.12 U | 0.12 U | 0.12 U | 0.32 I | 0.12 U | 0.12 U | 0.13 I |
| | SB-6 (0.5-2') | | 0.5 - 2 | 0.24 U | 0.12 U | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U |
| | SB-6 (2-3') | | 2 - 3 | 0.24 U | 0.12 U | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U |
| SB-8 | SB-8 (0-0.5') | 1/27/2020 | 0 - 0.5 | 0.43 I | 0.11 I | 0.22 U | 0.45 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.32 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-8 (0.5-2') | | 0.5 - 2 | 0.25 I | 0.12 U | 0.24 U | 0.47 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.26 I | 0.14 I | 0.12 U | 0.12 U | 0.12 U | 0.30 I | 0.12 U | 0.12 U | 0.12 U |
| | SB-8 (2-3') | | 2 - 3 | 0.24 U | 0.12 U | 0.24 U | 0.49 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U |
| SB-10 | SB-10 (0-0.5') | 1/27/2020 | 0 - 0.5 | 1.0 | 0.22 I | 0.22 U | 0.45 U | 0.22 U | 0.11 U | 0.11 U | 0.12 I | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.17 I | 0.17 I | 0.17 I | 0.11 U | 0.11 U | 0.11 U | 0.42 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-10 (0.5-2') | | 0.5 - 2 | 0.24 U | 0.12 U | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U |
| | SB-10 (2-3') | | 2 - 3 | 0.25 U | 0.12 U | 0.25 U | 0.50 U | 0.25 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.25 U | 0.12 U | 0.12 U | 0.12 U |
| SB-11 | SB-11 (0-0.5') | 1/27/2020 | 0 - 0.5 | 0.44 I | 0.11 U | 0.21 U | 0.42 U | 0.21 U | 0.11 U | 0.11 U | 0.11 U | 0.12 I | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.21 U | 0.11 U | 0.11 U | 0.11 U |
| | SB-11 (0.5-2') | | 0.5 - 2 | 0.22 U | 0.11 U | 0.22 U | 0.45 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.27 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-11 (2-3') | | 2 - 3 | 0.24 U | 0.12 U | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U |
| SB-12 | SB-12 (0-0.5') | 1/27/2020 | 0 - 0.5 | 1.5 | 0.25 I | 0.23 U | 0.45 U | 0.23 U | 0.23 I | 0.11 U | 0.11 U | 0.64 | 0.20 I | 0.18 I | 0.11 U | 0.42 I | 0.11 U | 0.29 I | 0.11 U | 0.21 I | 0.11 U | 1.1 | 0.11 U | 0.11 U | 0.11 U |
| | SB-12 (0.5-2') | | 0.5 - 2 | 0.24 U | 0.12 U | 0.24 U | 0.47 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 I | 0.12 U | 0.31 I | 0.12 U | 0.12 U | 0.12 U | 0.73 I | 0.12 U | 0.12 U | 0.12 U |
| | SB-12 (2-3') | | 2 - 3 | 0.25 U | 0.12 U | 0.25 U | 0.49 U | 0.25 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.15 I | 0.12 U | 0.24 I | 0.12 U | 0.12 U | 0.12 U | 0.58 I | 0.12 U | 0.12 U | 0.12 U |
| SB-13 | SB-13 (0-0.5') | 1/27/2020 | 0 - 0.5 | 1.9 | 0.30 I | 0.21 U | 0.42 U | 0.21 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.21 I | 0.11 U | 0.11 U | 0.23 I | 0.11 U | 0.17 I | 0.11 U | 0.31 I | 0.11 U | 0.40 I | 0.11 U | 0.11 U | 0.23 I |
| | SB-13 (0.5-2') | | 0.5 - 2 | 0.23 U | 0.24 I | 0.23 U | 0.46 U | 0.23 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.16 I | 0.11 U | 0.13 I | 0.11 U | 0.11 U | 0.11 U | 0.26 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-13 (2-3') | | 2 - 3 | 0.24 U | 0.12 U | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.15 I | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U |
| SB-14 | SB-14 (0-0.5') | 1/27/2020 | 0 - 0.5 | 1.5 | 0.19 I | 0.21 U | 0.43 U | 0.21 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.16 I | 0.11 U | 0.12 I | 0.11 U | 0.20 I | 0.11 U | 0.29 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-14 (0.5-2') | | 0.5 - 2 | 0.26 I | 0.12 U | 0.23 U | 0.47 U | 0.23 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.13 I | 0.12 U | 0.16 I | 0.12 U | 0.12 U | 0.12 U | 0.42 I | 0.12 U | 0.12 U | 0.12 U |
| | SB-14 (2-3') | | 2 - 3 | 0.24 U | 0.12 U | 0.24 U | 0.49 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.31 I | 0.12 U | 0.12 U | 0.12 U |
| SB-15 | SB-15 (0-0.5') | 1/27/2020 | 0 - 0.5 | 2.5 | 0.26 I | 0.21 U | 0.42 U | 0.21 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.20 I | 0.11 I | 0.11 U | 0.20 I | 0.14 I | 0.23 I | 0.11 U | 0.26 I | 0.11 U | 0.40 I | 0.11 U | 0.11 U | 0.19 I |
| | SB-15 (0.5-2') | | 0.5 - 2 | 0.25 I | 0.12 I | 0.22 U | 0.45 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.32 I | 0.23 I | 0.18 I | 0.11 U | 0.11 U | 0.11 U | 0.33 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-15 (2-3') | | 2 - 3 | 0.24 U | 0.12 U | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.14 I | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U |
| SB-16 | SB-16 (0-0.5') | 1/27/2020 | 0 - 0.5 | 3.4 | 0.29 I | 0.23 U | 0.46 U | 0.23 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.49 | 0.17 I | 0.12 U | 0.22 I | 0.12 U | 0.23 I | 0.12 U | 0.97 | 0.12 U | 0.66 I | 0.12 U | 0.12 U | 0.48 |
| | SB-16 (0.5-2') | | 0.5 - 2 | 0.83 I | 0.35 I | 0.22 U | 0.43 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.34 I | 0.12 I | 0.12 I | 0.11 U | 0.11 U | 0.11 U | 0.35 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-16 (2-3') | | 2 - 3 | 0.25 U | 0.12 U | 0.25 U | 0.50 U | 0.25 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.25 U | 0.12 U | 0.12 U | 0.12 U |
| SB-17 | SB-17 (0-0.5') | 1/27/2020 | 0 - 0.5 | 5.5 | 1.5 | 0.21 U | 1.7 | 20 | 0.10 U | 0.10 U | 0.10 U | 0.26 I | 13 | 1.3 | 0.10 U | 1.0 | 0.40 I | 1.1 | 0.12 I | 1.8 | 0.10 U | 1.7 | 0.37 I | 0.21 I | 3.8 |
| | SB-17 (0.5-2') | | 0.5 - 2 | **30** | 1.8 | 0.23 U | 18 | 41 | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 3.0 | 0.30 I | 0.11 U | 2.4 | 0.86 | 0.72 | 0.11 U | 2.2 | 0.11 U | 1.5 | 0.11 U | 0.11 U | 0.40 I |
| | SB-17 (2-3') | | 2 - 3 | 4.6 | 0.61 | 0.25 U | 3.6 | 7.1 | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.42 I | 0.13 U | 0.13 U | 0.64 | 0.30 I | 0.58 | 0.13 U | 0.50 I | 0.13 U | 0.97 I | 0.13 U | 0.13 U | 0.13 U |
| SB-18 | SB-18 (0-0.5') | 1/27/2020 | 0 - 0.5 | **16** | 0.74 | 0.21 U | 0.49 I | 0.91 | 0.10 U | 0.10 U | 0.11 I | 1.9 | 4.7 | 2.1 | 0.31 I | 0.88 | 1.5 | 0.84 | 0.47 | 1.2 | 0.15 I | 2.1 | 0.31 I | 0.43 | 13 |
| | SB-18 (0.5-2') | | 0.5 - 2 | **85** | 0.70 | 0.22 U | 0.43 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.13 I | 0.80 | 0.17 I | 0.44 | 0.41 I | 1.7 | 0.73 | 0.11 U | 3.0 | 0.16 I | 1.2 | 0.11 U | 0.11 U | 0.85 |
| | SB-18 (2-3') | | 2 - 3 | **26** | **2.5** | 0.23 U | 14 | 0.23 U | 0.11 U | 0.11 U | 0.13 I | 0.11 U | 0.11 U | 0.11 U | 1.6 | 1.2 | 2.8 | 3.3 | 0.11 U | 1.3 | 0.27 I | 3.0 | 0.11 U | 0.11 U | 0.16 I |
| SB-19 | SB-19 (0-0.5') | 1/27/2020 | 0 - 0.5 | **7.9** | 0.91 | 0.22 U | 1.1 I | 6.1 | 0.11 U | 0.11 U | 0.11 U | 0.26 I | 8.1 | 1.4 | 0.11 U | 2.4 | 0.87 | 1.3 | 0.15 I | 1.1 | 0.11 U | 2.9 | 0.29 I | 0.24 I | 3.2 |
| | SB-19 (0.5-2') | | 0.5 - 2 | **18** | 2.1 | 0.23 U | 1.3 I | 0.69 I | 0.12 U | 0.12 U | 0.73 | 0.12 U | 0.44 I | 0.12 U | 0.40 I | 2.2 | 4.5 | 3.0 | 0.12 U | 1.1 | 0.62 | 4.0 | 0.12 U | 0.12 U | 0.13 I |
| | SB-19 (2-3') | | 2 - 3 | 3.1 | 0.68 | 0.23 U | 1.8 I | 0.23 U | 0.12 U | 0.12 U | 1.4 | 0.12 U | 0.18 I | 0.12 U | 0.14 I | 3.5 | 7.4 | 2.8 | 0.12 U | 0.23 I | 1.2 | 4.6 | 0.12 U | 0.12 U | 0.12 U |

**TABLE 3: SOIL ANALYTICAL RESULTS FOR PFAS COMPOUNDS**
**Hillsborough Community College**

| Sample Location | Sample ID | Sample Date | Sample Interval (ft BLS) | PFOS | PFOA | 4:2 FTS | 6:2 FTS | 8:2 FTS | NEtFOSAA | NMeFOSAA | PFBS | PFDS | PFDA | PFDoA | PFHpS | PFHpA | PFHxS | PFHxA | PFNS | PFNA | PFPeS | PFPeA | PFTeA | PFTriA | PFUnA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Provisional Leachability SCTL | | | | 7 | 2 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Provisional Residential SCTL | | | | 1,300 | 1,300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Provisional Industrial SCTL | | | | 25,000 | 25,000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SB-20 | SB-20 (0-0.5') | 1/27/2020 | 0 - 0.5 | **14** | 0.33 I | 0.21 U | 0.42 U | 0.21 U | 0.10 U | 0.10 U | 0.10 U | 0.68 | 2.5 | 1.0 | 0.23 I | 0.53 | 1.3 | 0.60 | 0.23 I | 1.2 | 0.12 I | 1.3 | 0.27 I | 0.31 I | 4.4 |
| | SB-20 (0.5-2') | | 0.5 - 2 | **76** | 0.43 I | 0.22 U | 1.3 I | 1.7 | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 1.2 | 0.11 U | 0.22 I | 0.58 | 1.9 | 0.25 I | 0.11 U | 2.0 | 0.11 U | 0.72 I | 0.11 U | 0.11 U | 0.14 IJ |
| | SB-20 (2-3') | | 2 - 3 | **90** | 0.92 | 0.23 U | 19 | 0.23 U | 0.12 U | 0.12 U | 0.47 | 0.12 U | 0.12 U | 0.12 U | 0.45 I | 0.83 | 4.4 | 3.8 | 0.12 U | 1.2 | 0.56 | 3.3 | 0.12 U | 0.12 U | 0.12 U |
| SB-21 | SB-21 (0-0.5') | 1/28/2020 | 0 - 0.5 | **50** | 1.6 | 0.22 U | 3.1 | 13 | 0.11 U | 0.11 U | 1.1 | 2.4 | 16 | 3.2 | 0.52 | 2.6 | 5.9 | 2.9 | 1.5 | 3.5 | 0.63 | 6.9 | 0.38 I | 0.42 I | 7.5 |
| | SB-21 (0.5-2') | | 0.5 - 2 | **300** | **9.2** | 0.23 U | 66 | 2.4 | 0.12 U | 0.12 U | 7.2 | 0.12 U | 0.98 | 0.21 I | 7.5 | 12 | 68 | 18 | 0.12 U | 2.6 | 8.0 | 21 | 0.12 U | 0.12 U | 0.31 I |
| | SB-21 (2-3') | | 2 - 3 | **21** | 1.7 | 0.23 U | 12 | 0.23 U | 0.11 U | 0.11 U | 5.4 | 0.11 U | 0.21 I | 0.11 U | 1.2 | 2.2 | 17 | 5.7 | 0.11 U | 0.24 I | 4.4 | 5.2 | 0.11 U | 0.11 U | 0.17 I |
| SB-22 | SB-22 (0-0.5') | 1/28/2020 | 0 - 0.5 | **8.7** | 0.38 I | 0.21 U | 0.42 U | 0.74 I | 0.11 U | 0.11 U | 0.11 U | 1.7 | 3.1 | 2.3 | 0.11 I | 0.43 | 0.75 | 0.62 | 0.22 I | 0.46 | 0.11 U | 1.1 | 0.34 I | 0.39 I | 5.3 |
| | SB-22 (0.5-2') | | 0.5 - 2 | **34** | 0.44 I | 0.22 U | 0.45 U | 0.83 I | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 2.2 | 0.11 U | 0.18 I | 0.50 | 0.90 | 0.31 I | 0.20 I | 0.87 | 0.11 U | 0.59 I | 0.11 U | 0.11 U | 0.23 I |
| | SB-22 (2-3') | | 2 - 3 | **33** | 0.20 I | 0.23 U | 0.47 U | 0.23 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.25 I | 0.12 U | 0.12 U | 0.14 I | 0.39 | 0.19 I | 0.12 U | 0.53 | 0.12 U | 0.27 I | 0.12 U | 0.12 U | 0.12 U |
| SB-23 | SB-23 (0-0.5') | 1/28/2020 | 0 - 0.5 | **44** | 1.0 | 0.23 U | 0.46 U | 0.30 I | 0.12 U | 0.12 U | 0.24 I | 1.2 | 4.6 | 1.3 | 0.36 I | 2.0 | 3.8 | 2.0 | 0.62 | 1.5 | 0.27 I | 4.2 | 0.28 I | 0.38 I | 5.7 |
| | SB-23 (0.5-2') | | 0.5 - 2 | **60** | 0.76 | 0.23 U | 0.72 I | 0.23 U | 0.11 U | 0.11 U | 0.33 I | 0.11 U | 0.27 I | 0.11 U | 0.52 | 1.0 | 4.0 | 1.7 | 0.11 U | 0.75 | 0.42 I | 1.9 | 0.11 U | 0.11 U | 0.12 I |
| | SB-23 (2-3') | | 2 - 3 | 1.4 | 0.15 I | 0.25 U | 0.71 I | 0.25 U | 0.12 U | 0.12 U | 0.96 | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.75 | 3.7 | 1.2 | 0.12 U | 0.12 U | 0.88 | 1.5 | 0.12 U | 0.12 U | 0.12 U |
| SB-24 | SB-24 (0-0.5') | 1/28/2020 | 0 - 0.5 | **31** | 2.1 | 0.23 U | 9.3 | 9.1 | 0.11 U | 0.11 U | 0.65 | 0.13 I | 2.7 | 0.29 I | 0.35 I | 2.5 | 2.2 | 11 | 0.11 U | 4.7 | 0.42 I | 17 | 0.14 I | 0.12 I | 0.99 |
| | SB-24 (0.5-2') | | 0.5 - 2 | 4.2 | 2.1 | 0.22 U | 40 | 0.22 U | 0.11 U | 0.11 U | 0.89 | 0.11 U | 0.11 U | 0.11 U | 0.44 | 1.8 | 3.3 | 13 | 0.11 U | 0.64 | 1.1 | 9.6 | 0.11 U | 0.11 U | 0.11 U |
| | SB-24 (2-3') | | 2 - 3 | 0.54 I | 0.17 I | 0.25 U | 4.9 | 0.25 U | 0.13 U | 0.13 U | 0.35 I | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.23 I | 1.1 | 0.99 | 0.13 U | 0.13 U | 0.35 I | 1.3 | 0.13 U | 0.13 U | 0.13 U |
| SB-25 | SB-25 (0-0.5') | 1/28/2020 | 0 - 0.5 | 4.8 | 0.30 I | 0.21 U | 0.42 U | 0.21 UJ | 0.32 I | 0.11 U | 0.11 U | 0.21 I | 0.88 | 0.27 I | 0.11 U | 0.36 | 0.38 | 0.53 | 0.11 U | 0.41 I | 0.11 U | 1.1 | 0.11 U | 0.14 I | 0.52 |
| | SB-25 (0.5-2') | | 0.5 - 2 | **40** | 0.22 I | 0.22 U | 0.44 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.19 I | 0.31 | 0.18 I | 0.11 U | 0.82 | 0.11 U | 0.36 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-25 (2-3') | | 2 - 3 | **11** | 0.15 I | 0.23 U | 0.73 I | 0.23 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.15 I | 0.14 I | 0.12 I | 0.12 U | 0.19 I | 0.12 U | 0.23 U | 0.12 U | 0.12 U | 0.12 U |
| SB-26 | SB-26 (0.5-2') | 1/30/2020 | 0.5 - 2 | 0.73 I | 0.12 U | 0.24 U | 2.4 | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.15 I | 0.22 I | 0.39 I | 0.12 U | 0.12 U | 0.12 U | 0.93 I | 0.12 U | 0.12 U | 0.12 U |
| | SB-26 (2-3') | | 2 - 3 | 0.24 U | 0.12 U | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.14 I | 0.19 I | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.59 I | 0.12 U | 0.12 U | 0.12 U |
| SB-27 | SB-27 (0.5-2') | 1/28/2020 | 0.5 - 2 | 0.22 U | 0.11 U | 0.22 U | 0.43 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.05 U | 0.05 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U |
| | SB-27 (2-3') | | 2 - 3 | 0.24 U | 0.12 U | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.06 U | 0.06 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U |
| SB-28 | SB-28 (0.5-2') | 1/29/2020 | 0.5 - 2 | 6.4 | 0.27 I | 0.24 U | 4.9 | 75 | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 1.0 | 0.12 U | 0.12 U | 0.33 I | 0.12 I | 1.1 | 0.12 U | 0.26 I | 0.12 U | 2.0 | 0.12 U | 0.12 U | 0.12 U |
| | SB-28 (2-3') | | 2 - 3 | 0.51 I | 0.13 U | 0.26 U | 0.52 U | 2.2 | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.16 I | 0.13 U | 0.13 U | 0.13 U | 0.36 I | 0.13 U | 0.13 U | 0.13 U |
| SB-29 | SB-29 (0-0.5') | 1/29/2020 | 0 - 0.5 | 0.60 I | 0.11 U | 0.22 U | 0.45 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.18 I | 0.22 I | 0.23 I | 0.11 U | 0.11 U | 0.11 U | 0.16 I | 0.11 U | 0.14 I | 0.11 U | 0.24 I | 0.13 I | 0.15 I | 0.24 I |
| | SB-29 (0.5-2') | | 0.5 - 2 | 0.22 U | 0.11 U | 0.22 U | 0.43 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U |
| | SB-29 (2-3') | | 2 - 3 | 0.23 U | 0.12 U | 0.23 U | 0.47 U | 0.23 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.23 U | 0.12 U | 0.12 U | 0.12 U |
| SB-30 | SB-30 (0-0.5') | 1/29/2020 | 0 - 0.5 | 0.46 I | 0.10 U | 0.21 U | 0.42 U | 0.21 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.21 U | 0.10 U | 0.10 U | 0.10 U |
| | SB-30 (0.5-2') | | 0.5 - 2 | 0.40 I | 0.11 U | 0.22 U | 0.44 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U |
| | SB-30 (2-3') | | 2 - 3 | 0.24 U | 0.12 U | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U |
| SB-31 | SB-31 (0.5-2') | 1/28/2020 | 0.5 - 2 | 0.24 U | 0.12 U | 0.24 U | 0.49 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.06 U | 0.06 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U |
| | SB-31 (2-3') | | 2 - 3 | 0.26 U | 0.13 U | 0.26 U | 0.52 U | 0.26 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.07 U | 0.07 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.26 U | 0.13 U | 0.13 U | 0.13 U |
| SB-32 | SB-32 (0-0.5') | 1/27/2020 | 0 - 0.5 | 1.4 | 0.31 I | 0.25 U | 0.50 U | 0.25 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.16 I | 0.18 I | 0.22 I | 0.12 U | 0.15 I | 0.12 U | 0.51 I | 0.12 UJ | 0.12 U | 0.13 I |
| | SB-32 (0.5-2') | | 0.5 - 2 | 0.26 U | 0.13 U | 0.26 U | 0.52 U | 0.26 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.26 U | 0.13 U | 0.13 U | 0.13 U |
| | SB-32 (2-3') | | 2 - 3 | 0.24 U | 0.12 U | 0.24 U | 0.49 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U |
| SB-33 | SB-33(0.0-0.5') | 5/18/2020 | 0 - 0.5 | 3.7 | 0.51 | 0.21 U | 0.42 U | 0.21 U | 0.11 U | 0.11 U | 0.36 I | 0.20 I | 0.11 U | 0.11 U | 0.11 U | 1.4 | 16 | 2.2 | 0.11 U | 0.19 I | 0.94 | 2.8 | 0.11 U | 0.11 U | 0.11 U |
| | SB-33(0.5-2') | | 0.5 - 2 | 0.21 U | 0.10 U | 0.21 U | 0.41 U | 0.21 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.26 I | 2.2 | 0.30 I | 0.10 U | 0.10 U | 0.17 I | 0.41 U | 0.10 U | 0.10 U | 0.10 U |
| | SB-33(2-3') | | 2 - 3 | 0.26 U | 0.13 U | 0.26 U | 0.53 U | 0.26 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.26 U | 0.50 I | 0.26 U | 0.13 U | 0.13 U | 0.15 I | 0.53 U | 0.13 U | 0.13 U | 0.13 U |
| SB-34 | SB-34(0.0-0.5') | 5/18/2020 | 0 - 0.5 | 3.5 | 0.32 I | 0.23 U | 0.46 U | 0.23 U | 0.76 I | 0.11 U | 0.29 I | 1.3 | 0.25 I | 0.24 I | 0.11 U | 0.51 I | 0.87 I | 1.3 | 0.11 U | 0.24 I | 0.30 I | 3.3 | 0.11 U | 0.12 I | 0.21 I |
| | SB-34(0.5-2') | | 0.5 - 2 | 1.4 | 0.82 | 0.21 U | 0.42 U | 0.21 U | 0.10 U | 0.10 U | 0.13 I | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.58 I | 11 | 0.58 I | 0.10 U | 0.10 U | 0.59 | 0.61 I | 0.10 U | 0.10 U | 0.10 U |
| | SB-34(2-3') | | 2 - 3 | 0.25 U | 0.70 | 0.25 U | 0.49 U | 0.25 U | 0.12 U | 0.12 U | 0.23 I | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.99 | 15 | 0.71 I | 0.12 U | 0.12 U | 1.2 | 0.61 I | 0.12 U | 0.12 U | 0.12 U |
| SB-35 | SB-35(0.0-0.5') | 5/18/2020 | 0 - 0.5 | **76** | 0.64 | 0.22 U | 0.43 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.21 I | 0.75 I | 3.2 | 0.66 I | 0.11 U | 0.23 I | 0.11 U | 1.0 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-35(0.5-2') | | 0.5 - 2 | **260** | 0.68 | 0.21 U | 10 | 0.21 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.92 | 0.91 | 4.4 | 0.84 I | 0.11 U | 1.1 | 0.21 U | 0.97 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-35(2-3') | | 2 - 3 | **16** | 0.13 U | 0.25 U | 0.77 I | 0.25 U | 0.13 U | 0.13 U | 0.20 I | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.25 U | 2.4 | 0.51 I | 0.13 U | 0.13 U | 0.30 I | 0.59 I | 0.13 U | 0.13 U | 0.13 U |
| SB-36 | SB-36(0.0-0.5') | 5/18/2020 | 0 - 0.5 | 2.3 | 0.11 U | 0.21 U | 0.42 U | 0.21 U | 0.11 I | 0.11 U | 0.11 U | 0.27 I | 0.11 U | 0.11 U | 0.11 U | 0.21 U | 0.11 U | 0.21 U | 0.11 U | 0.18 I | 0.11 U | 0.43 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-36(0.5-2') | | 0.5 - 2 | 7.4 | 0.10 U | 0.21 U | 0.41 U | 0.21 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.25 I | 1.5 | 0.40 I | 0.10 U | 0.10 U | 0.13 I | 0.41 U | 0.10 U | 0.10 U | 0.10 U |
| | SB-36(2-3') | | 2 - 3 | 5.1 | 0.18 I | 0.23 U | 0.46 U | 0.23 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.41 I | 0.36 I | 4.5 | 0.61 I | 0.12 U | 0.12 U | 0.25 I | 0.60 I | 0.12 U | 0.12 U | 0.12 U |
| SB-37 | SB-37(0.0-0.5') | 5/18/2020 | 0 - 0.5 | **17** | 0.24 I | 0.19 U | 0.38 U | 0.19 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 1.1 | 0.26 I | 0.10 U | 0.19 U | 0.10 U | 0.19 U | 0.10 U | 0.69 | 0.10 U | 0.38 U | 0.10 U | 0.10 U | 0.64 |
| | SB-37(0.5-2') | | 0.5 - 2 | 4.4 | 2.4 | 0.24 U | 30 | 0.24 U | 0.12 U | 0.12 U | 2.9 | 0.12 U | 0.12 U | 0.12 U | 1.7 | 3.0 | 32 | 5.7 | 0.12 U | 0.12 U | 3.8 | 6.6 | 0.12 U | 0.12 U | 0.12 U |
| | SB-37(2-3') | | 2 - 3 | **80** | 0.37 I | 0.23 U | 3.7 | 0.23 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.55 | 0.29 I | 1.3 | 0.35 I | 0.11 U | 0.18 I | 0.11 U | 0.45 U | 0.11 U | 0.11 U | 0.11 U |
| SB-38 | SB-38(0.0-0.5') | 5/18/2020 | 0 - 0.5 | **8.7** | 0.28 I | 0.21 U | 0.41 U | 0.21 U | 0.95 | 0.10 U | 0.10 U | 1.2 | 0.51 | 0.28 I | 0.10 U | 0.33 I | 0.23 I | 0.39 I | 0.10 U | 0.36 I | 0.10 U | 1.3 I | 0.10 U | 0.18 I | 0.25 I |
| | SB-38(0.5-2') | | 0.5 - 2 | 4.4 | 0.11 U | 0.21 U | 0.56 I | 0.21 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.31 I | 0.45 | 0.21 U | 0.11 U | 0.18 I | 0.11 U | 0.42 U | 0.11 U | 0.11 U | 0.11 U |
| | SB-38(2-3') | | 2 - 3 | 0.38 I | 0.24 I | 0.21 U | 3.9 | 0.21 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.32 I | 1.7 | 0.52 I | 0.10 U | 0.10 U | 0.13 I | 0.61 I | 0.10 U | 0.10 U | 0.10 U |
| SB-39 | SB-39(0.0-0.5') | 5/19/2020 | 0 - 0.5 | 4.0 | **2.9** | 0.26 U | 0.52 U | 0.26 U | 0.13 U | 0.13 U | 2.9 | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 17 | 25 | 20 | 0.13 U | 0.19 I | 3.3 | 24 | 0.13 U | 0.13 U | 0.13 U |
| | SB-39(0.5-2') | | 0.5 - 2 | 0.82 I | 0.37 I | 0.29 U | 1.2 I | 0.29 U | 0.14 U | 0.14 U | 0.19 I | 0.14 U | 0.14 U | 0.14 U | 0.14 U | 2.5 | 3.3 | 2.0 | 0.14 U | 0.14 U | 0.43 I | 2.4 | 0.14 U | 0.14 U | 0.14 U |
| | SB-39(2-3') | | 2 - 3 | 1.0 I | 0.23 I | 0.45 U | 6.5 | 0.45 U | 0.22 U | 0.22 U | 0.22 U | 0.22 U | 0.22 U | 0.22 U | 0.22 U | 1.2 I | 1.4 | 1.5 I | 0.22 U | 0.22 U | 0.22 U | 2.0 I | 0.22 U | 0.22 U | 0.22 U |
| SB-40 | SB-40(0.0-0.5') | 5/19/2020 | 0 - 0.5 | 1.9 | 0.16 I | 0.22 U | 0.45 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.37 I | 0.15 I | 0.43 I | 0.11 U | 0.11 U | 0.11 U | 1.7 I | 0.11 U | 0.11 U | 0.12 I |
| | SB-40(0.5-2') | | 0.5 - 2 | 0.61 I | 0.11 U | 0.22 U | 0.44 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.22 U | 0.11 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.69 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-40(2-3') | | 2 - 3 | 0.24 U | 0.12 U | 0.24 U | 0.47 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.24 U | 0.12 U | 0.24 U | 0.12 U | 0.12 U | 0.12 U | 0.47 U | 0.12 U | 0.12 U | 0.12 U |
| SB-41 | SB-41(0.0-0.5') | 5/19/2020 | 0 - 0.5 | **19** | 0.24 I | 0.22 U | 0.44 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.22 I | 0.11 U | 0.11 U | 0.38 I | 1.1 | 0.25 I | 0.11 U | 0.27 I | 0.11 U | 0.83 I | 0.11 U | 0.11 U | 0.25 I |
| | SB-41(0.5-2') | | 0.5 - 2 | **43** | 0.14 I | 0.22 U | 0.45 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.22 U | 1.4 | 0.22 U | 0.11 U | 0.23 I | 0.11 U | 0.45 U | 0.11 U | 0.11 U | 0.11 U |
| | SB-41(2-3') | | 2 - 3 | **8.7** | 0.15 I | 0.23 U | 0.70 I | 0.23 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 I | 0.23 U | 0.84 | 0.23 U | 0.12 U | 0.12 U | 0.12 U | 0.47 U | 0.12 U | 0.12 U | 0.12 U |
| SB-42 | SB-42(0.0-0.5') | 5/19/2020 | 0 - 0.5 | **26** | 0.60 | 0.21 U | 0.42 U | 0.21 U | 0.11 U | 0.11 U | 0.39 I | 0.11 U | 1.3 | 0.34 I | 0.11 U | 0.95 | 2.6 | 2.8 | 0.11 U | 0.80 | 0.38 I | 7.2 | 0.11 U | 0.17 I | 0.94 |
| | SB-42(0.5-2') | | 0.5 - 2 | **19** | 0.18 I | 0.21 U | 0.42 U | 0.21 U | 0.11 U | 0.11 U | 0.28 I | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.40 I | 1.3 | 0.92 | 0.11 U | 0.49 | 0.24 I | 2.0 | 0.11 U | 0.11 U | 0.11 U |
| | SB-42(2-3') | | 2 - 3 | **30** | 0.55 | 0.24 U | 12 | 0.24 U | 0.12 U | 0.12 U | 0.30 I | 0.12 U | 0.12 U | 0.12 U | 0.27 I | 0.81 I | 2.3 | 1.8 | 0.12 U | 0.71 | 0.30 I | 3.5 | 0.12 U | 0.12 U | 0.12 U |
| SB-43 | SB-43(0.0-0.5') | 5/19/2020 | 0 - 0.5 | **14** | 0.43 | 0.21 U | 0.42 U | 0.21 U | 0.10 U | 0.10 U | 0.37 I | 0.10 U | 0.89 | 0.17 I | 0.11 I | 1.1 | 3.1 | 0.89 | 0.10 U | 0.73 | 0.37 I | 3.1 | 0.10 U | 0.13 I | 0.86 |
| | SB-43(0.5-2') | | 0.5 - 2 | **19** | 0.24 I | 0.22 U | 0.43 U | 0.22 U | 0.11 U | 0.11 U | 0.61 | 0.11 U | 0.11 U | 0.11 U | 0.15 I | 0.80 I | 2.3 | 0.91 | 0.11 U | 2.1 | 0.40 I | 2.3 | 0.11 U | 0.11 U | 0.11 U |
| | SB-43(2-3') | | 2 - 3 | **63** | 0.19 I | 0.24 U | 0.77 I | 0.24 U | 0.12 U | 0.12 U | 0.34 I | 0.12 U | 0.12 U | 0.12 U | 0.33 I | 0.30 I | 1.3 | 0.64 I | 0.12 U | 2.4 | 0.17 I | 1.9 | 0.12 U | 0.12 U | 0.12 U |

**TABLE 3: SOIL ANALYTICAL RESULTS FOR PFAS COMPOUNDS**
**Hillsborough Community College**

| Sample Location | Sample ID | Sample Date | Sample Interval (ft BLS) | PFOS | PFOA | 4:2 FTS | 6:2 FTS | 8:2 FTS | NEtFOSAA | NMeFOSAA | PFBS | PFDS | PFDA | PFDoA | PFHpS | PFHpA | PFHxS | PFHxA | PFNS | PFNA | PFPeS | PFPeA | PFTeA | PFTriA | PFUnA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Provisional Leachability SCTL | | | | 7 | 2 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Provisional Residential SCTL | | | | 1,300 | 1,300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Provisional Industrial SCTL | | | | 25,000 | 25,000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SB-44 | SB-44(0.0-0.5') | 5/19/2020 | 0 - 0.5 | **11** | 1.6 | 0.22 U | 0.44 U | 0.22 U | 0.11 U | 0.11 U | 0.45 | 0.21 I | 0.29 I | 0.11 U | 0.19 I | 2.6 | 9.1 | 4.8 | 0.11 U | 0.71 | 0.56 | 14 | 0.11 U | 0.11 U | 0.29 I |
| | SB-44(0.5-2') | | 0.5 - 2 | 0.23 U | 1.5 | 0.23 U | 26 | 0.23 U | 0.12 U | 0.12 U | 0.20 I | 0.12 U | 0.12 U | 0.12 U | 0.17 I | 1.9 | 7.7 | 2.5 | 0.12 U | 0.12 U | 0.34 I | 2.8 | 0.12 U | 0.12 U | 0.12 U |
| | SB-44(2-3') | | 2 - 3 | 0.27 I | 0.85 | 0.23 U | 10 | 0.23 U | 0.12 U | 0.12 U | 0.12 I | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.90 I | 3.6 | 1.4 | 0.12 U | 0.12 U | 0.18 I | 1.9 | 0.12 U | 0.12 U | 0.12 U |
| SB-45 | SB-45(0.0-0.5') | 5/19/2020 | 0 - 0.5 | **100** | 2.3 | 0.24 U | 0.48 U | 0.24 U | 0.12 U | 0.12 U | 0.14 I | 0.19 I | 2.4 | 0.46 I | 0.48 | 2.4 | 2.0 | 2.0 | 0.12 U | 3.2 | 0.12 U | 3.9 | 0.12 U | 0.16 I | 1.4 |
| | SB-45(0.5-2') | | 0.5 - 2 | 1.7 | 0.11 U | 0.23 U | 0.45 U | 0.23 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.26 I | 0.52 | 0.33 I | 0.11 U | 0.11 U | 0.11 U | 0.49 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-45(2-2.5') | | 2 - 2.5 | 0.79 I | 0.11 U | 0.22 U | 0.44 U | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.22 U | 0.14 I | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.44 U | 0.11 U | 0.11 U | 0.11 U |
| SB-46 | SB-46(0.0-0.5') | 5/20/2020 | 0 - 0.5 | **12** | 0.70 | 0.24 U | 0.49 U | 0.24 U | 0.12 U | 0.12 U | 0.54 | 0.12 U | 0.17 I | 0.12 U | 0.12 U | 2.2 | 2.7 | 3.7 | 0.12 U | 0.98 | 0.66 | 4.8 | 0.12 U | 0.12 U | 0.17 I |
| | SB-46(0.5-2') | | 0.5 - 2 | 3.0 | 0.28 I | 0.22 U | 2.9 | 0.22 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.27 I | 0.61 | 0.55 I | 0.11 U | 0.14 I | 0.11 U | 0.67 I | 0.11 U | 0.11 U | 0.11 U |
| | SB-46(2-3') | | 2 - 3 | 0.29 I | 0.12 I | 0.21 U | 3.1 | 0.21 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.21 U | 0.60 | 0.39 I | 0.11 U | 0.11 U | 0.11 U | 0.56 I | 0.11 U | 0.11 U | 0.11 U |
| SB-47 | SB-47(0.0-0.5') | 5/20/2020 | 0 - 0.5 | **21** | **9.5** | 0.24 U | 69 | 0.24 U | 0.12 U | 0.12 U | 16 | 0.12 U | 0.18 I | 0.12 U | 8.0 | 13 | 160 | 37 | 0.12 U | 1.0 | 17 | 42 | 0.12 U | 0.12 U | 0.24 I |
| | SB-47(0.5-2') | | 0.5 - 2 | 4.5 | **3.3** | 0.23 U | 29 | 0.23 U | 0.12 U | 0.12 U | 3.8 | 0.12 U | 0.12 U | 0.12 U | 1.9 | 3.6 | 34 | 7.2 | 0.12 U | 0.13 I | 4.7 | 8.0 | 0.12 U | 0.12 U | 0.12 U |
| | SB-47(2-3') | | 2 - 3 | **46** | **3.7** | 0.23 U | 47 | 0.23 U | 0.12 U | 0.12 U | 2.0 | 0.12 U | 0.12 U | 0.12 U | 4.2 | 2.5 | 27 | 4.4 | 0.12 U | 0.63 | 2.5 | 5.0 | 0.12 U | 0.12 U | 0.12 U |
| SB-48 | SB-48(0.0-0.5') | 5/20/2020 | 0 - 0.5 | **39** | 0.27 I | 0.19 U | 0.39 U | 0.19 U | 0.10 U | 0.10 U | 1.8 | 0.10 U | 0.20 I | 0.10 U | 0.13 I | 1.0 | 8.9 | 1.7 | 0.10 U | 0.35 I | 1.7 | 3.4 | 0.10 U | 0.10 U | 0.26 I |
| | SB-48(0.5-2') | | 0.5 - 2 | **21** | 0.24 I | 0.20 U | 0.40 U | 0.20 U | 0.10 U | 0.10 U | 0.33 I | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.46 I | 2.4 | 0.68 I | 0.10 U | 0.69 | 0.38 I | 1.3 I | 0.10 U | 0.10 U | 0.10 U |
| | SB-48(2-3') | | 2 - 3 | **28** | 0.28 I | 0.23 U | 0.85 I | 0.23 U | 0.11 U | 0.11 U | 0.24 I | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.43 I | 1.7 | 0.61 I | 0.11 U | 0.50 | 0.17 I | 1.0 I | 0.11 U | 0.11 U | 0.11 U |
| SB-49 | SB-49(0.0-0.5') | 5/20/2020 | 0 - 0.5 | 1.8 | 0.15 I | 0.21 U | 0.42 U | 0.21 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.33 I | 0.48 | 0.49 I | 0.10 U | 0.10 U | 0.10 U | 1.1 I | 0.10 U | 0.10 U | 0.10 U |
| | SB-49(0.5-2') | | 0.5 - 2 | 0.45 I | 0.11 U | 0.23 U | 0.46 U | 0.23 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.23 U | 0.11 U | 0.23 U | 0.11 U | 0.11 U | 0.11 U | 0.46 U | 0.11 U | 0.11 U | 0.11 U |
| | SB-49(2-3') | | 2 - 3 | 0.25 I | 0.12 U | 0.25 U | 0.49 U | 0.25 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.12 U | 0.25 U | 0.15 I | 0.25 U | 0.12 U | 0.12 U | 0.12 U | 0.49 U | 0.12 U | 0.12 U | 0.12 U |

**Notes:**

1. Results and screening criteria are presented in micrograms per kilogram (µg/Kg).
2. ft BLS indicates feet below land surface.
3. Gray shaded, bold text indicates an exceedance of the FDEP provisional leachability soil cleanup target level (SCTL).
4. "--" indicates no screening criteria.
5. U indicates material was analyzed for but not detected (the laboratory method detection limit [MDL] is shown).
6. I indicates result is between the laboratory MDL and the practical quantitation limit.
7. J indicates and estimated value and/or the analysis did not meet established quality control criteria.
8. NA indicates not analyzed.
9. PFAS indicates per- and polyfluoroalkyl substances.

| Analyte | Acronym |
|---|---|
| Perfluorooctanesulfonic acid | PFOS |
| Perfluorooctanic acid | PFOA |
| 4:2 Fluorotelomer sulfonate | 4:2 FTS |
| 6:2 Fluorotelemer sulfonate | 6:2 FTS |
| 8:2 Fluorotelemer sulfonate | 8:2 FTS |
| N-ethylperfluorooctanesulfonamidoacetic acid | NEtFOSAA |
| N-methylperfluorooctanesulfonamidoacetic acid | NMeFOSAA |
| Perfluorobutanesulfonic acid | PFBS |
| Perfluorodecanesulfonic acid | PFDS |
| Perfluorodecanoic acid | PFDA |
| Perfluorododecanoic acid | PFDoA |
| Perfluoroheptanesulfonic acid | PFHpS |
| Perfluoroheptanoic acid | PFHpA |
| Perfluorohexanesulfonic acid | PFHxS |
| Perfluorohexanoic acid | PFHxA |
| Perfluorononanesulfonic acid | PFNS |
| Perfluorononanoic acid | PFNA |
| Perfluoropentanesulfonic acid | PFPeS |
| Perfluoropentanoic acid | PFPeA |
| Perfluorotetradecanoic acid | PFTeA |
| Perfluorotridecanoic Acid | PFTriA |
| Perfluoroundecanoic acid | PFUnA |

## TABLE 4: PAVEMENT AND ROAD BASE ANALYTICAL RESULTS FOR PFAS COMPOUNDS
**Hillsborough Community College**

| Sample Location | Sample ID | Sample Date | Sample Interval (ft BLS) | PFOS | PFOA | 6:2 FTS | 8:2 FTS | NEtFOSAA | NMeFOSAA | PFBS | PFBA | PFDS | PFDA | PFDoA | PFHpS | PFHpA | PFHxS | PFHxA | PFNA | FOSA | PFPeA | PFTeA | PFTriA | PFUnA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PV-3 | PV-3 (0-0.1') | 1/28/2020 | 0 - 0.1 | 0.19 J | 0.077 J | 0.13 U | 0.22 U | 0.34 U | 0.32 U | 0.022 U | 0.11 J B | 0.034 U | 0.048 J I | 0.059 U | 0.031 U | 0.12 J | 0.043 J | 0.14 J | 0.032 U | 0.072 U | 0.39 | 0.047 U | 0.045 U | 0.032 U |
| PV-4 | PV-4 (0-0.1') | 1/28/2020 | 0 - 0.1 | 0.51 I | 0.083 U | 0.15 U | 0.24 U | 0.38 U | 0.36 U | 0.23 | 0.43 B | 0.038 U | 0.021 U | 0.065 U | 0.034 U | 0.055 J | 0.66 | 0.28 | 0.035 U | 0.079 U | 0.68 | 0.052 U | 0.049 U | 0.035 U |
| PV-5 | PV-5 (0-0.1') | 1/28/2020 | 0 - 0.1 | 0.20 U | 0.086 U | 0.15 U | 0.25 U | 0.39 U | 0.37 U | 0.025 U | 0.028 U | 0.039 U | 0.022 U | 0.067 U | 0.035 U | 0.029 U | 0.042 J | 0.042 U | 0.036 U | 0.082 U | 0.077 U | 0.054 U | 0.051 U | 0.036 U |
| RB-3 | RB-3 (0.1-0.5') | 1/28/2020 | 0.1 - 0.5 | 0.30 J | 0.088 U | 0.15 U | 0.26 U | 0.40 U | 0.38 U | 0.026 U | 0.037 J B | 0.040 U | 0.023 U | 0.069 U | 0.036 U | 0.038 J | 0.032 U | 0.047 J | 0.037 U | 0.084 U | 0.098 J | 0.055 U | 0.052 U | 0.037 U |
| RB-4 | RB-4 (0.1-0.5') | 1/28/2020 | 0.1 - 0.5 | 0.37 J | 0.082 J | 0.14 U | 0.23 U | 0.36 U | 0.35 U | 0.12 J | 0.61 B | 0.036 U | 0.021 U | 0.063 U | 0.033 U | 0.13 J | 0.48 | 0.67 | 0.034 U | 0.077 U | 1.1 | 0.051 U | 0.048 U | 0.034 U |
| RB-5 | RB-5 (0.1-0.5') | 1/28/2020 | 0.1 - 0.5 | 0.23 J | 0.079 U | 0.14 U | 0.23 U | 0.36 U | 0.34 U | 0.023 U | 0.074 J B | 0.036 U | 0.020 U | 0.062 U | 0.032 U | 0.027 U | 0.052 J | 0.039 U | 0.033 U | 0.076 U | 0.071 U | 0.050 U | 0.047 U | 0.033 U |

**Notes:**

1. Results are presented in micrograms per kilogram (µg/Kg).
2. ft BLS indicates feet below land surface.
3. U indicates material was analyzed for but not detected (the laboratory method detection limit [MDL] is shown).
4. I indicates result is between the laboratory MDL and the practical quantitation limit.
5. J indicates and estimated value and/or the analysis did not meet established quality control criteria.
6. B indicates compound was found in the blank and sample.
7. PV indicates pavement sample.
8. RB indicates road base sample.
9. PFAS indicates per- and polyfluoroalkyl substances.

| Analyte | Acronym |
|---|---|
| Perfluorooctanesulfonic acid | PFOS |
| Perfluorooctanic acid | PFOA |
| 6:2 Fluorotelemer sulfonate | 6:2 FTS |
| 8:2 Fluorotelemer sulfonate | 8:2 FTS |
| N-ethylperfluorooctanesulfonamidoacetic acid | NEtFOSAA |
| N-methylperfluorooctanesulfonamidoacetic acid | NMeFOSAA |
| Perfluorobutanesulfonic acid | PFBS |
| Perfluorobutanoic acid | PFBA |
| Perfluorodecanesulfonic acid | PFDS |
| Perfluorodecanoic acid | PFDA |
| Perfluorododecanoic acid | PFDoA |
| Perfluoroheptanesulfonic acid | PFHpS |
| Perfluoroheptanoic acid | PFHpA |
| Perfluorohexanesulfonic acid | PFHxS |
| Perfluorohexanoic acid | PFHxA |
| Perfluorononanoic acid | PFNA |
| Perfluorooctanesulfonamide | FOSA |
| Perfluoropentanoic acid | PFPeA |
| Perfluorotetradecanoic acid | PFTeA |
| Perfluorotridecanoic Acid | PFTriA |
| Perfluoroundecanoic acid | PFUnA |

# TABLE 5: WELL CONSTRUCTION DETAILS
## Hillsborough Community College

| Well ID | Date Installed | Installation Method | Type | Top of Casing Elevation (ft NAVD 88) | Total Depth (ft BLS) | Screened Interval (ft BLS) | Well Diameter (inches) | Lithology of Screened Interval |
|---|---|---|---|---|---|---|---|---|
| DEPMW-1 (2-12') | 1/29/2020 | HSA | Permanent | 31.39 | 12 | 2 - 12 | 2 | Clayey sand |
| DEPMW-2 (2-12') | 1/28/2020 | | | 31.98 | | | | |
| DEPMW-3 (2-12') | | | | 32.46 | | | | Sand |
| DEPMW-4 (2-12') | 1/29/2020 | | | 32.02 | | | | Clayey sand |
| DEPMW-5 (2-12') | | | | 31.79 | | | | Clay with varying amounts of sand and gravel |
| DEPMW-6 (2-12') | 1/30/2020 | | | 30.97 | | | | Sandy clay to sand |
| DEPMW-7 (2-12') | 1/28/2020 | | Abandoned | NM | | | | Sand |
| DEPMW-7R (2-12') | 2/21/2020 | Sonic | Permanent | 31.67 | | | | Not collected |
| DEPMW-8 (2-12') | 1/28/2020 | HSA | | 34.27 | | | | Silty sand |
| DEPMW-9 (2-12') | 1/29/2020 | | | 31.56 | | | | Sand |
| DEPMW-10 (2-12') | | | | 33.22 | | | | |
| DEPMW-11 (2-12') | | | | 33.89* | | | | |
| DEPMW-12 (110-130') | 2/20/2020 | Sonic | | 32.63 | 130 | 110 - 130 | | Clay with varying amounts of sand and gravel to clayey limestone |
| DEPMW-13 (100-120') | | | | 31.78 | 120 | 100 - 120 | | Silty limestone to clay with limestone and sand |
| DEPMW-14 (110-130') | 2/18/2020 | | | 33.16 | 130 | 110 - 130 | | Limestone with sand and clay to sandy clay |
| DEPMW-15 (110-130') | 2/19/2020 | | | 33.77 | | | | Clayey limestone with sand |
| DEPMW-16 (36-56') | 5/21/2020 | | | 31.89 | 56 | 36 - 56 | | Clay with varying amounts of sand and gravel |
| DEPMW-17 (27-47') | 5/26/2020 | | | 31.87 | 47 | 27 - 47 | | |
| DEPMW-18 (2-12') | 5/18/2020 | | | 31.63 | 12 | 2 - 12 | | Sand with varying amounts of clay and silt |
| DEPMW-19 (32-52') | 5/19/2020 | | | 31.52 | 52 | 32 - 52 | | Clay with varying amounts of sand and gravel |
| DEPMW-20 (2-12') | 5/18/2020 | | | 31.54 | 12 | 2 - 12 | | Sand with varying amount of silt |
| DEPMW-21 (2-12') | 5/18/2020 | | | 31.48 | 12 | 2 - 12 | | Sand with varying amounts of clay and silt |
| DEPMW-22 (40-60') | 5/20/2020 | | | 30.90 | 60 | 40 - 60 | | Clay with varying amounts of sand and gravel |
| DEPMW-23 (32-52') | 5/22/2020 | | | 33.77 | 52 | 32 - 52 | | |
| TMW-1 (2-12') | 3/27/2019 | DPT | Temporary | NM | 12 | 2 - 12 | 1 | Not collected |
| TMW-2 (2-12') | | | | | | | | |

**Notes:**

1. ft BLS indicates feet below land surface.
2. HSA indicates hollow stem auger.
3. Top of casing (TOC) elevations are relative to ft North American Vertical Datum 1988 (NAVD 88).
4. NM indicates not measured.
5. DPT indicates direct push technology.
6. * indicates resurveyed TOC elevation after well pad disturbance. The initial elevation surveyed on 2/22/2020 was 33.99 ft NAVD88.

# TABLE 6: GROUNDWATER ELEVATION SUMMARY

## Hillsborough Community College

| WELL ID | DEPMW-1 (2-12') | | DEPMW-2 (2-12') | | DEPMW-3 (2-12') | | DEPMW-4 (2-12') | | DEPMW-5 (2-12') | | DEPMW-6 (2-12') | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIAMETER (inches) | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | |
| WELL DEPTH (ft BLS) | 12 | | 12 | | 12 | | 12 | | 12 | | 12 | |
| SCREEN INTERVAL (ft BLS) | 2 - 12 | | 2 - 12 | | 2 - 12 | | 2 - 12 | | 2 - 12 | | 2 - 12 | |
| TOC ELEVATION (ft NAVD88) | 31.39 | | 31.98 | | 32.46 | | 32.02 | | 31.79 | | 30.97 | |
| DATE | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV |
| 2/24/2020 | 2.75 | 28.64 | 3.12 | 28.86 | 2.76 | 29.70 | 3.14 | 28.88 | 3.27 | 28.52 | 2.17 | 28.80 |
| 5/26/2020 | 3.23 | 28.16 | 3.60 | 28.38 | 3.23 | 29.23 | 3.62 | 28.40 | 3.85 | 27.94 | 2.66 | 28.31 |

| WELL ID | DEPMW-7 (2-12') | | DEPMW-7R (2-12') | | DEPMW-8 (2-12') | | DEPMW-9 (2-12') | | DEPMW-10 (2-12') | | DEPMW-11 (2-12') | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIAMETER (inches) | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | |
| WELL DEPTH (ft BLS) | 12 | | 12 | | 12 | | 12 | | 12 | | 12 | |
| SCREEN INTERVAL (ft BLS) | 2 - 12 | | 2 - 12 | | 2 - 12 | | 2 - 12 | | 2 - 12 | | 2 - 12 | |
| TOC ELEVATION (ft NAVD88) | N/A | | 31.67 | | 34.27 | | 31.56 | | 33.22 | | 33.89* | |
| DATE | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV |
| 2/24/2020 | Abandoned | | 2.30 | 29.37 | 4.22 | 30.05 | 2.59 | 28.97 | 3.98 | 29.24 | 3.95 | 30.04 |
| 5/26/2020 | | | 2.77 | 28.90 | 4.54 | 29.73 | 3.12 | 28.44 | 4.57 | 28.65 | 4.43 | 29.46 |

| WELL ID | DEPMW-12 (110-130') | | DEPMW-13 (100-120') | | DEPMW-14 (110-130') | | DEPMW-15 (110-130') | | DEPMW-16 (36-56') | | DEPMW-17 (27-47') | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIAMETER (inches) | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | |
| WELL DEPTH (ft BLS) | 130 | | 120 | | 130 | | 130 | | 56 | | 47 | |
| SCREEN INTERVAL (ft BLS) | 110 - 130 | | 100 - 120 | | 110 - 130 | | 110 - 130 | | 36 - 56 | | 27 - 47 | |
| TOC ELEVATION (ft NAVD88) | 32.63 | | 31.78 | | 33.16 | | 33.77 | | 31.89 | | 31.87 | |
| DATE | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV |
| 2/24/2020 | 14.46 | 18.17 | 13.65 | 18.13 | 7.64 | 25.52 | 15.66 | 18.11 | NI | | NI | |
| 5/26/2020 | 16.15 | 16.48 | 15.37 | 16.41 | 8.53 | 24.63 | 17.35 | 16.42 | 3.81 | 28.08 | 4.30 | 27.57 |

| WELL ID | DEPMW-18 (2-12') | | DEPMW-19 (32-52') | | DEPMW-20 (2-12') | | DEPMW-21 (2-12') | | DEPMW-22 (40-60') | | DEPMW-23 (32-52') | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIAMETER (inches) | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | |
| WELL DEPTH (ft BLS) | 12 | | 52 | | 12 | | 12 | | 60 | | 52 | |
| SCREEN INTERVAL (ft BLS) | 2 - 12 | | 32 - 52 | | 2 - 12 | | 2 - 12 | | 40 - 60 | | 32 - 52 | |
| TOC ELEVATION (ft NAVD88) | 31.63 | | 31.52 | | 31.54 | | 31.48 | | 30.90 | | 33.77 | |
| DATE | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV |
| 2/24/2020 | NI | | NI | | NI | | NI | | NI | | NI | |
| 5/26/2020 | 2.89 | 28.74 | 3.17 | 28.35 | 3.00 | 28.54 | 3.32 | 28.16 | 3.07 | 27.83 | 4.73 | 29.04 |

| WELL ID | KK-7 | | KK-8A | | KK-FL1 | | KK-FL2 | |
|---|---|---|---|---|---|---|---|---|
| DIAMETER (inches) | 2 | | 2 | | 2 | | 2 | |
| WELL DEPTH (ft BLS) | 17 | | 15 | | 67 | | 71 | |
| SCREEN INTERVAL (ft BLS) | 12 - 17 | | 10 - 15 | | 57 - 67 | | 61 - 71 | |
| TOC ELEVATION (ft NAVD88) | 33.41 | | 32.55 | | 32.80 | | 34.09 | |
| DATE | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV |
| 2/24/2020 | 5.85 | 27.56 | 4.35 | 28.20 | 4.75 | 28.05 | 6.40 | 27.69 |
| 5/26/2020 | NM | | NM | | NM | | NM | |

**Notes:**

1. DTW indicates depth to groundwater measured in feet below top of casing.
2. ELEV indicates groundwater elevation in relative to feet North American Vertical Datum on 1988 (ft NAVD88).
3. ft BLS indicates feet below land surface.
4. Top of casing (TOC) elevations are relative to ft NAVD88.
5. * indicates resurveyed TOC elevation after well pad disturbance. The initial elevation surveyed on 2/22/2020 was 33.99 ft NAVD88 and is reflected in the groundwater elevation for 2/24/2020.
6. NI indicates not installed.
7. NM indicates not measured.

**TABLE 7: GROUNDWATER ANALYTICAL RESULTS FOR PFAS COMPOUNDS**
**Hillsborough Community College**

| Sample Location | Sample ID | Sample Date | Sample Interval (ft BLS) | PFOS | PFOA | PFOA + PFOS | 4:2 FTS | 6:2 FTS | 8:2 FTS | NEtFOSAA | NMeFOSAA | PFBS | PFBA | PFDS | PFDA | PFDoA | PFHpS | PFHpA | PFHxS | PFHxA | PFNS | PFNA | FOSA | PFPeS | PFPeA | PFTeA | PFTriA | PFUnA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Provisional GCTL (ng/L) | 70 | 70 | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEPMW-1 | DEPMW-1 (2-12') | 2/18/2020 | 2 - 12 | 3.6 | 4.3 | 7.9 | NA | 1.9 U | 1.9 U | 2.9 U | 1.8 U | 2.8 | 15 B | 0.30 U | 0.29 U | 0.52 U | 0.18 U | 6.2 | 3.3 B | 37 | NA | 0.67 J | 0.42 J B | NA | 62 | 0.28 U | 1.2 U | 1.0 U |
| | DUP-6 (2-12') | 2/18/2020 | | 3.8 | 3.6 | 7.4 | NA | 1.8 U | 1.8 U | 2.8 U | 1.7 U | 3.1 | 16 B | 0.28 U | 0.28 U | 0.49 U | 0.17 U | 6.1 | 2.9 B | 34 | NA | 0.63 J | 0.50 J B | NA | 62 | 0.26 U | 1.2 U | 0.98 U |
| | DEPMW-1(2-12) | 5/26/2020 | | 16 Y | 5.3 Y | 21 Y | 2.0 UY | 5.1 IY | 2.0 UY | 0.40 UY | 0.40 UY | 3.1 Y | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 13 Y | 6.5 Y | 32 Y | 0.40 UY | 1.6 IY | NA | 1.2 IY | 65 Y | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-2 | DEPMW-2 (2-12') | 2/18/2020 | 2 - 12 | **3,800** | **2,000** | **5,800** | NA | 16,000 | 180 U | 280 U | 170 U | 2,000 | 3,500 B | 29 U | 28 U | 49 U | 330 | 2,900 | 9,500 B | 8,700 | NA | 120 J | 31 U | NA | 16,000 | 26 U | 120 U | 98 U |
| | DEPMW-2(2-12) | 5/26/2020 | | **22,000 Y** | **4,700 Y** | **26,700 Y** | 140 Y | 110,000 Y | 26 Y | 0.40 UY | 0.40 UY | 5,600 Y | NA | 0.40 UY | 4.7 Y | 1.0 UY | 880 Y | 9,400 Y | 24,000 Y | 17,000 Y | 0.40 UY | 250 Y | NA | 6,000 Y | 30,000 Y | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-3 | DEPMW-3 (2-12') | 2/18/2020 | 2 - 12 | 8.5 | 9.1 | 18 | NA | 1.8 U | 1.8 U | 2.8 U | 1.7 U | 4.5 | 19 B | 0.29 U | 0.37 J | 0.49 U | 0.17 U | 4.4 | 5.6 B | 8.4 | NA | 0.76 J | 0.55 J B | NA | 12 | 0.26 U | 1.2 U | 0.99 U |
| | DEPMW-3(2-12) | 5/26/2020 | | 4.1 IY | 1.2 IY | 5.3 IY | 2.0 UY | 110 Y | 2.0 UY | 0.40 UY | 0.40 UY | 1.4 IY | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 2.0 UY | 1.0 IY | 2.3 IY | 0.40 UY | 1.0 UY | NA | 0.40 UY | 4.0 UY | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-4 | DEPMW-4 (2-12') | 2/18/2020 | 2 - 12 | 3.6 | 4.2 | 7.8 | NA | 1.8 U | 1.8 U | 2.7 U | 1.7 U | 2.7 | 5.3 B | 0.28 U | 0.27 U | 0.48 U | 0.17 U | 3.0 | 2.0 B | 5.5 | NA | 0.54 J | 0.44 J B | NA | 7.7 | 0.25 U | 1.1 U | 0.97 U |
| | DEPMW-4(2-12) | 5/26/2020 | | 3.6 IY | 22 Y | 26 Y | 2.0 UY | 4.0 UY | 2.0 UY | 0.40 UY | 0.40 UY | 13 Y | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 72 Y | 34 Y | 160 Y | 0.40 UY | 1.0 UY | NA | 7.4 Y | 190 Y | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-5 | DEPMW-5 (2-12') | 2/18/2020 | 2 - 12 | **2,400 E** | **250** | **2,650 E** | NA | 2,300 E | 63 | 2.7 U | 1.7 U | 270 | 340 B | 0.28 U | 0.27 U | 0.48 U | 30 | 410 E | 870 E B | 810 E | NA | 58 | 0.58 J B | NA | 1,100 E | 0.25 U | 1.1 U | 0.96 U |
| | DEPMW-5(2-12) | 5/27/2020 | | **980 Y** | **160 Y** | **1,140 Y** | 58 Y | 3,700 Y | 16 Y | 0.40 UY | 0.40 UY | 820 Y | NA | 0.40 UY | 1.0 UY | 1.0 UY | 9.9 Y | 390 Y | 2,200 Y | 970 Y | 0.40 UY | 18 Y | NA | 700 Y | 1,100 Y | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-6 | DEPMW-6 (2-12') | 2/24/2019 | 2 - 12 | 5.8 | 13 | 19 | NA | 80 | 1.6 U | 2.4 U | 1.5 U | 37 | 240 B | 0.25 U | 0.24 U | 0.43 U | 0.15 U | 54 | 12 B | 250 | NA | 0.23 J | 0.37 J B | NA | 720 | 0.23 U | 1.0 U | 0.87 U |
| | DEPMW-6(2-12) | 5/28/2020 | | 4.4 I | 6.8 | 11 | 3.3 I | 190 | 2.0 U | 0.40 U | 0.40 U | 44 | NA | 0.40 U | 1.0 U | 1.0 U | 0.40 U | 51 | 21 | 180 | 0.40 U | 1.0 U | NA | 17 | 390 | 0.40 U | 0.40 U | 1.0 U |
| DEPMW-7 | DEPMW-7 (2-12') | 2/18/2020 | 2 - 12 | 10 I | 7.0 | 17 | NA | 8.1 J | 1.8 U | 2.9 U | 1.8 U | 3.2 | 10 B | 0.30 U | 0.29 U | 0.51 U | 0.24 J | 6.0 | 4.3 B | 11 | NA | 0.36 J | 0.35 J B | NA | 14 | 0.27 U | 1.2 U | 1.0 U |
| DEPMW-7R | DEPMW-7R(2-12) | 5/26/2020 | 2 - 12 | 9.1 | 4.1 | 13 | 2.0 U | 12 I | 2.0 U | 0.40 U | 0.40 U | 3.6 | NA | 0.40 U | 1.0 U | 1.0 U | 0.40 U | 5.7 I | 2.4 | 7.0 I | 0.40 U | 1.0 U | NA | 0.40 U | 12 I | 0.40 U | 0.40 U | 1.0 U |
| DEPMW-8 | DEPMW-8 (2-12') | 2/18/2020 | 2 - 12 | 7.6 | 3.7 | 11 | NA | 1.8 U | 1.8 U | 2.8 U | 1.7 U | 1.9 | 4.3 B | 0.29 U | 0.54 J | 0.50 U | 0.17 U | 2.1 | 1.3 J B | 3.3 | NA | 0.82 J | 0.46 J B | NA | 5.1 | 0.26 U | 1.2 U | 1.0 U |
| | DEPMW-8(2-12) | 5/26/2020 | | 7.2 IY | 1.0 UY | 7.7 Y | 2.0 UY | 4.0 UY | 2.0 UY | 0.40 UY | 0.40 UY | 0.56 IY | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 2.0 UY | 0.40 UY | 2.0 UY | 0.40 UY | 1.0 UY | NA | 0.40 UY | 4.0 UY | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-9 | DEPMW-9 (2-12') | 2/18/2020 | 2 - 12 | 26 | 5.0 | 31 | NA | 1.7 U | 1.7 U | 2.6 U | 1.6 U | 2.9 | 23 B | 0.27 U | 0.26 U | 0.46 U | 0.16 U | 8.5 | 2.4 B | 36 | NA | 4.6 | 0.77 J B | NA | 68 | 0.25 U | 1.1 U | 0.93 U |
| | DEPMW-9(2-12) | 5/26/2020 | | 18 Y | 4.1 Y | 22 Y | 2.0 UY | 4.0 UY | 2.0 UY | 0.40 UY | 0.40 UY | 11 Y | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 49 Y | 3.9 Y | 250 Y | 0.40 UY | 1.7 IY | NA | 4.4 Y | 440 Y | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-10 | DEPMW-10 (2-12') | 2/24/2019 | 2 - 12 | 24 | 5.2 | 29 | NA | 1.7 U | 1.7 U | 2.6 U | 1.6 U | 2.5 | 6.5 B | 0.27 U | 0.41 J | 0.46 U | 0.16 U | 1.8 | 3.5 B | 2.2 | NA | 1.3 J | 0.83 J B | NA | 2.7 | 0.24 U | 1.1 U | 0.92 U |
| | DEPMW-10(2-12) | 5/27/2020 | | 33 Y | 5.3 Y | 38 Y | 2.0 UY | 4.0 UY | 2.0 UY | 0.40 UY | 0.40 UY | 2.0 Y | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 3.1 IY | 2.1 Y | 2.5 IY | 0.40 UY | 1.5 IY | NA | 0.40 UY | 4.0 UY | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-11 | DEPMW-11 (2-12') | 2/18/2020 | 2 - 12 | 10 | 4.3 | 14 | NA | 1.8 U | 1.8 U | 2.7 U | 1.7 U | 4.9 | 7.0 B | 0.28 U | 0.27 U | 0.48 U | 0.17 U | 1.6 J | 2.6 B | 2.2 | NA | 0.71 J | 0.57 J B | NA | 2.3 | 0.31 J | 1.1 U | 0.97 U |
| | DEPMW-11(2-12) | 5/27/2020 | | 8.3 | 2.4 I | 11 | 2.0 U | 4.0 U | 2.0 U | 0.40 U | 0.40 U | 8.4 | NA | 0.40 U | 1.0 U | 1.0 U | 0.40 U | 2.0 U | 2.5 | 2.0 U | 0.40 U | 1.0 U | NA | 0.40 U | 4.0 U | 0.40 U | 0.40 U | 1.0 U |
| DEPMW-12 | DEPMW-12 (110-130') | 2/24/2019 | 110 - 130 | 14 | 8.1 | 22 | NA | 7.2 J | 1.6 U | 2.5 U | 1.5 U | 7.3 | 3.3 B | 0.26 U | 0.25 U | 0.44 U | 0.15 U | 3.8 | 5.1 B | 5.1 | NA | 0.22 U | 0.32 J B | NA | 6.0 | 0.23 U | 1.0 U | 0.88 U |
| | DEPMW-12(110-130) | 5/26/2020 | | 23 Y | 6.0 Y | 29 Y | 2.0 UY | 4.0 UY | 2.0 UY | 0.40 UY | 0.40 UY | 4.0 Y | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 2.7 IY | 6.3 Y | 3.7 IY | 0.40 UY | 1.0 UY | NA | 0.65 IY | 5.5 IY | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-13 | DEPMW-13 (100-120') | 2/24/2019 | 100 - 120 | 1.0 J | 0.66 U | 1.3 | NA | 120 | 1.5 U | 2.4 U | 1.5 U | 0.15 U | 0.82 J B | 0.25 U | 0.24 U | 0.43 U | 0.15 U | 0.19 U | 0.48 J B | 0.45 U | NA | 0.21 U | 0.52 J B | NA | 0.57 J | 0.22 U | 1.0 U | 0.85 U |
| | DEPMW-13(100-120) | 5/27/2020 | | 2.0 UY | 1.0 UY | 1.5 UY | 2.0 UY | 4.0 UY | 2.0 UY | 0.40 UY | 0.40 UY | 0.40 UY | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 2.0 UY | 0.40 UY | 2.0 UY | 0.40 UY | 1.0 UY | NA | 0.40 UY | 4.0 UY | 0.40 UY | 0.40 UY | 1.0 UY |
| | DUP-7 (100-120) | 5/27/2020 | | 2.0 UY | 1.0 UY | 1.5 UY | 2.0 UY | 4.0 UY | 2.0 UY | 0.40 UY | 0.40 UY | 0.40 UY | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 2.0 UY | 0.40 UY | 2.0 UY | 0.40 UY | 1.0 UY | NA | 0.40 UY | 4.0 UY | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-14 | DEPMW-14 (110-130') | 2/24/2019 | 110 - 130 | 0.45 U | 0.70 U | 0.58 U | NA | 1.7 U | 1.7 U | 2.6 U | 1.6 U | 0.17 U | 0.39 J B | 0.27 U | 0.26 U | 0.46 U | 0.16 U | 0.21 U | 0.23 J B | 0.48 U | NA | 0.22 U | 0.36 J B | NA | 0.41 U | 0.46 J | 1.1 U | 0.91 U |
| | DEPMW-14(110-130) | 5/27/2020 | | 2.0 UY | 1.0 UY | 1.5 UY | 2.0 UY | 12 IY | 2.0 UY | 0.40 UY | 0.40 UY | 0.40 UY | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 2.0 UY | 0.40 UY | 2.0 UY | 0.40 UY | 1.0 UY | NA | 0.40 UY | 4.0 UY | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-15 | DEPMW-15 (110-130') | 2/24/2019 | 110 - 130 | 11 | 0.72 U | 11 | NA | 1.7 U | 1.7 U | 2.6 U | 1.6 U | 0.58 J | 0.51 J B | 0.27 U | 0.26 U | 0.47 U | 0.16 U | 0.21 U | 2.5 B | 0.49 U | NA | 0.23 U | 0.30 U | NA | 0.42 U | 0.25 U | 1.1 U | 0.94 U |
| | DEPMW-15(110-130) | 5/27/2020 | | 8.9 | 1.0 U | 9.4 | 2.0 U | 4.0 U | 2.0 U | 0.40 U | 0.40 U | 1.2 I | NA | 0.40 U | 1.0 U | 1.0 U | 0.40 U | 2.0 U | 1.4 I | 2.0 U | 0.40 U | 1.0 U | NA | 0.40 U | 4.0 U | 0.40 U | 0.40 U | 1.0 U |
| DEPMW-16 | DEPMW-16(36-56) | 5/27/2020 | 36 - 56 | 9.2 | 1.5 I | 11 | 2.0 U | 4.0 U | 2.0 U | 0.40 U | 0.40 U | 0.67 I | NA | 0.40 U | 1.0 U | 1.0 U | 0.40 U | 2.0 U | 2.2 | 2.0 U | 0.40 U | 1.0 U | NA | 0.40 U | 4.0 U | 0.40 U | 0.40 U | 1.0 U |
| | DUP-8 (36-56) | 5/27/2020 | | 9.7 | 1.1 I | 11 | 2.0 U | 4.0 U | 2.0 U | 0.40 U | 0.40 U | 0.60 I | NA | 0.40 U | 1.0 U | 1.0 U | 0.40 U | 2.0 U | 2.2 | 2.0 U | 0.40 U | 1.0 U | NA | 0.50 I | 4.0 U | 0.40 U | 0.40 U | 1.0 U |
| DEPMW-17 | DEPMW-17(27-47) | 5/27/2020 | 27 - 47 | 2.1 IY | 1.0 UY | 2.6 Y | 2.0 UY | 4.0 UY | 2.0 UY | 0.40 UY | 0.40 UY | 0.40 UY | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 2.0 UY | 0.40 UY | 2.0 UY | 0.40 UY | 1.0 UY | NA | 0.40 UY | 4.0 UY | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-18 | DEPMW-18(2-12) | 5/26/2020 | 2 - 12 | 4.2 IY | 1.9 IY | 6.1 IY | 2.0 UY | 4.0 UY | 2.0 UY | 0.40 UY | 0.40 UY | 0.91 IY | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 2.0 UY | 0.59 IY | 2.9 IY | 0.40 UY | 1.0 UY | NA | 0.40 UY | 5.3 IY | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-19 | DEPMW-19(32-52) | 5/26/2020 | 32 - 52 | 41 Y | 5.9 Y | 47 Y | 2.0 UY | 5.9 IY | 2.0 UY | 0.40 UY | 0.40 UY | 2.7 Y | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.62 IY | 2.4 IY | 4.3 Y | 2.9 IY | 0.40 UY | 1.0 UY | NA | 0.71 IY | 6.9 IY | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-20 | DEPMW-20(2-12) | 5/26/2020 | 2 - 12 | 12 Y | 7.6 Y | 20 Y | 2.0 UY | 4.0 UY | 2.0 UY | 0.40 UY | 0.40 UY | 9.7 Y | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 9.2 Y | 65 Y | 15 Y | 0.40 UY | 1.0 UY | NA | 10 Y | 30 Y | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-21 | DEPMW-21(2-12) | 5/26/2020 | 2 - 12 | 2.3 IY | 7.4 Y | 9.7 Y | 2.0 UY | 6.0 IY | 2.0 UY | 0.40 UY | 0.40 UY | 10 Y | NA | 0.40 UY | 1.0 UY | 1.0 UY | 0.40 UY | 11 Y | 11 Y | 28 Y | 0.40 UY | 1.0 UY | NA | 4.6 Y | 62 Y | 0.40 UY | 0.40 UY | 1.0 UY |
| DEPMW-22 | DEPMW-22(40-60) | 5/28/2020 | 40 - 60 | 3.5 I | 1.0 U | 4.0 | 2.0 U | 5.3 IJ | 6.1 I | 0.40 U | 0.40 U | 0.54 I | NA | 0.40 U | 1.0 U | 1.0 U | 0.40 U | 2.0 U | 2.3 | 2.0 U | 0.40 U | 1.0 U | NA | 0.40 U | 4.0 U | 0.40 U | 0.40 U | 1.0 U |
| DEPMW-23 | DEPMW-23(32-52) | 5/27/2020 | 32 - 52 | 6.9 I | 1.0 U | 7.4 | 2.0 U | 4.0 U | 2.0 U | 0.40 U | 0.40 U | 0.56 I | NA | 0.40 U | 1.0 U | 1.0 U | 0.40 U | 2.0 U | 1.9 | 2.0 U | 0.40 U | 1.0 U | NA | 0.40 U | 4.0 U | 0.40 U | 0.40 U | 1.0 U |
| KK-7 | KK-7 (12-17') | 2/19/2020 | 12 - 17 | 16 | 9.4 | 25 | NA | 12 J | 1.8 U | 2.8 U | 1.7 U | 2.4 | 4.5 B | 0.29 U | 0.28 U | 0.49 U | 0.53 J | 3.9 | 7.1 B | 6.5 | NA | 3.1 | 0.37 J B | NA | 7.8 | 0.26 U | 1.2 U | 0.98 U |
| KK-8A | KK-8A (10-15') | 2/19/2020 | 10 - 15 | 19 | 3.7 | 23 | NA | 1.7 U | 1.7 U | 2.7 U | 1.6 U | 1.6 J | 6.0 B | 0.28 U | 0.27 U | 0.48 U | 0.16 U | 1.2 J | 2.1 B | 1.8 | NA | 2.1 | 0.40 J B | NA | 1.8 | 0.25 U | 1.1 U | 0.95 U |
| | DUP5 (10-15') | 2/19/2020 | 10 - 15 | 20 | 3.9 | 24 | NA | 1.7 U | 1.7 U | 2.6 U | 1.6 U | 1.7 | 5.3 B | 0.27 U | 0.87 J | 0.47 U | 0.16 U | 1.2 J | 1.9 B | 1.7 | NA | 1.7 | 0.43 J B | NA | 1.4 J | 0.25 U | 1.1 U | 0.93 U |
| KK-FL1 | KK-FL1 (57-67') | 2/19/2020 | 57 - 67 | 1.2 J | 0.78 U | 1.6 | NA | 1.8 U | 1.8 U | 2.9 U | 1.8 U | 0.18 U | 0.75 J B | 0.29 U | 0.29 U | 0.51 U | 0.18 U | 0.23 U | 0.39 J B | 0.53 U | NA | 0.25 U | 0.70 J B | NA | 0.46 J | 0.27 U | 1.2 U | 1.0 U |
| KK-FL2 | KK-FL2 (61-71') | 2/19/2020 | 61 - 71 | 19 | 5.5 | 25 | NA | 11 J | 1.7 U | 2.7 U | 1.6 U | 3.6 | 6.3 B | 0.27 U | 0.27 U | 0.47 U | 0.39 J | 3.7 | 3.7 B | 12 | NA | 0.33 J | 0.55 J B | NA | 16 | 0.25 U | 1.1 U | 0.94 U |
| TMW-1 | TMW-1(2-12') | 3/27/2019 | 2 - 12 | **880** | **680** | **1,560** | NA | NA | NA | 0.07 I | 0.05 U | 1,600 | NA | NA | 1.6 U | 1.0 U | NA | 1,700 | 4,500 | 5,400 | NA | 14 | NA | NA | NA | 0.08 U | 0.40 U | 2.0 U |
| | DUP-2(2-12') | 3/27/2019 | 2 - 12 | **870** | **570** | **1,440** | NA | NA | NA | 0.10 I | 0.05 U | 1,700 | NA | NA | 1.6 U | 1.0 U | NA | 1,400 | 4,100 | 5,200 | NA | 15 | NA | NA | NA | 0.08 U | 0.40 U | 2.0 U |
| TMW-2 | TMW-2(2-12') | 3/27/2019 | 2 - 12 | **870** | **260** | **1,130** | NA | NA | NA | 0.05 U | 0.05 U | 1,100 | NA | NA | 1.6 U | 1.0 U | NA | 960 | 4,000 | 3,200 | NA | 1.4 I | NA | NA | NA | 0.08 U | 0.40 U | 2.0 U |
| SUPPLY WELL | SUPPLY WELL (TBD) | 3/28/2019 | NA | 4.6 I | 1.9 U | 5.6 | NA | NA | NA | 0.38 U | 0.38 U | 0.38 U | NA | NA | 1.9 U | 1.9 U | NA | 0.38 U | 1.4 I | 0.38 U | NA | 1.9 U | NA | NA | NA | 0.38 U | 0.38 U | 1.9 U |
| | DUP-3(TBD) | 3/28/2019 | NA | 5.0 I | 1.9 U | 6.0 | NA | NA | NA | 0.37 U | 0.37 U | 0.37 U | NA | NA | 1.9 U | 1.9 U | NA | 0.37 U | 1.5 | 0.37 U | NA | 1.9 U | NA | NA | NA | 0.37 U | 0.37 U | 1.9 U |

**Notes:**

1. Results and screening criteria are presented in nanograms per liter (ng/L).
2. ft BLS indicates feet below land surface.
3. Blue shaded, bold text indicates an exceedance of the Florida Department of Environmental Protection provisional groundwater cleanup target level (GCTL).
4. "--" indicates no screening criteria.
5. U indicates material was analyzed for but not detected (the laboratory method detection limit [MDL] is shown).
6. I indicates result is between the laboratory MDL and the practical quantitation limit.
7. J indicates and estimated value and/or the analysis did not meet established quality control criteria.
8. B indicates compound was found in blank and sample.
9. E indicates result exceeded calibration range.
10. Y indicates sample was received with inadequate sample preservation.
11. PFOA + PFOS indicates the summation of PFOA and PFOS concentrations.
12. NA indicates not analyzed.
13. DUP indicates duplicate sample.
14. PFAS indicates per- and polyfluoroalkyl substances.

| Analyte | Acronym |
|---|---|
| Perfluorooctanesulfonic acid | PFOS |
| Perfluorooctanic acid | PFOA |
| 4:2 Fluorotelomer sulfonate | 4:2 FTS |
| 6:2 Fluorotelemer sulfonate | 6:2 FTS |
| 8:2 Fluorotelemer sulfonate | 8:2 FTS |
| N-ethylperfluorooctanesulfonamidoacetic acid | NEtFOSAA |
| N-methylperfluorooctanesulfonamidoacetic acid | NMeFOSAA |
| Perfluorobutanesulfonic acid | PFBS |
| Perfluorobutanoic acid | PFBA |
| Perfluorodecanesulfonic acid | PFDS |
| Perfluorodecanoic acid | PFDA |
| Perfluorododecanoic acid | PFDoA |
| Perfluoroheptanesulfonic acid | PFHpS |
| Perfluoroheptanoic acid | PFHpA |
| Perfluorohexanesulfonic acid | PFHxS |
| Perfluorohexanoic acid | PFHxA |
| Perfluorononanesulfonic acid | PFNS |
| Perfluorononanoic acid | PFNA |
| Perfluorooctanesulfonamide | FOSA |
| Perfluoropentanesulfonic acid | PFPeS |
| Perfluoropentanoic acid | PFPeA |
| Perfluorotetradecanoic acid | PFTeA |
| Perfluorotridecanoic Acid | PFTriA |
| Perfluoroundecanoic acid | PFUnA |

**TABLE 8: SURFACE WATER ANALYTICAL RESULTS FOR PFAS COMPOUNDS**
**Hillsborough Community College**

| Sample Location | Sample ID | Sample Date | PFOS | PFOA | PFOA + PFOS | 4:2 FTS | 6:2 FTS | 8:2 FTS | NEtFOSAA | NMeFOSAA | PFBS | PFDS | PFDA | PFDoA | PFHpS | PFHpA | PFHxS | PFHxA | PFNS | PFNA | PFPeS | PFPeA | PFTeA | PFTriA | PFUnA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW-1 | SW-1 | 3/28/2019 | 22 | 23 | 45 | NA | NA | NA | 0.38 U | 0.38 U | 16 | NA | 4.1 I | 1.9 U | NA | 140 | 37 | 290 | NA | 4.4 I | NA | NA | 0.38 U | 0.38 U | 1.9 U |
| | DUP-1 | | 22 | 21 | 43 | NA | NA | NA | 0.38 U | 0.38 U | 17 | NA | 3.6 I | 1.9 U | NA | 120 | 40 | 260 | NA | 4.9 I | NA | NA | 0.38 U | 0.38 U | 1.9 U |
| SW-2 | SW-2 | 5/19/2020 | 84 | 15 | 99 | 2.0 U | 12 I | 2.0 U | 0.40 U | 0.40 U | 21 | 0.40 U | 1.0 U | 1.0 U | 1.2 I | 49 | 57 | 54 | 0.40 U | 2.4 I | 12 | 85 | 0.40 U | 0.40 U | 1.0 U |
| | DUP 4 (SW-2-DUP) | | 85 | 13 | 98 | 2.0 U | 9.8 I | 2.0 U | 0.40 U | 0.40 U | 19 | 0.40 U | 1.0 I | 1.0 U | 1.1 I | 49 | 54 | 60 | 0.40 U | 2.2 I | 11 | 81 | 0.40 U | 0.40 U | 1.0 U |
| SW-3 | SW-3 | 5/20/2020 | 1,200 | 170 | 1,370 | 20 | 1,000 | 2.0 U | 0.40 U | 0.40 U | 1,100 | 0.40 U | 2.8 I | 1.0 U | 36 | 640 | 3,800 | 1,400 | 0.40 U | 16 | 920 | 1,700 | 0.40 U | 0.40 U | 1.0 U |
| SW-4 | SW-4 | 5/20/2020 | 300 | 46 | 346 | 2.0 U | 640 | 140 | 0.40 U | 0.40 U | 9.7 | 0.40 U | 9.0 | 1.3 I | 3.0 | 73 | 72 | 130 | 0.40 U | 17 | 10 | 190 | 0.40 U | 0.40 U | 1.0 U |

**Notes:**

1. Results are presented in nanograms per liter (ng/L).
2. Surface water screening levels are under development.
3. PFOA + PFOS indicates the summation of PFOA and PFOS concentrations.
4. U indicates material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
5. I indicates result is between the laboratory method detection limit and the laboratory practical quantitation limit.
6. PFAS indicates per- and polyfluoroalkyl substances.
7. NA indicates not analyzed.

| Analyte | Acronym |
|---|---|
| Perfluorooctanesulfonic acid | PFOS |
| Perfluorooctanic acid | PFOA |
| 4:2 Fluorotelomer sulfonate | 4:2 FTS |
| 6:2 Fluorotelemer sulfonate | 6:2 FTS |
| 8:2 Fluorotelemer sulfonate | 8:2 FTS |
| N-ethylperfluorooctanesulfonamidoacetic acid | NEtFOSAA |
| N-methylperfluorooctanesulfonamidoacetic acid | NMeFOSAA |
| Perfluorobutanesulfonic acid | PFBS |
| Perfluorodecanesulfonic acid | PFDS |
| Perfluorodecanoic acid | PFDA |
| Perfluorododecanoic acid | PFDoA |
| Perfluoroheptanesulfonic acid | PFHpS |
| Perfluoroheptanoic acid | PFHpA |
| Perfluorohexanesulfonic acid | PFHxS |
| Perfluorohexanoic acid | PFHxA |
| Perfluorononanesulfonic acid | PFNS |
| Perfluorononanoic acid | PFNA |
| Perfluoropentanesulfonic acid | PFPeS |
| Perfluoropentanoic acid | PFPeA |
| Perfluorotetradecanoic acid | PFTeA |
| Perfluorotridecanoic Acid | PFTriA |
| Perfluoroundecanoic acid | PFUnA |

**TABLE 9: SEDIMENT ANALYTICAL RESULTS FOR PFAS COMPOUNDS**
**Hillsborough Community College**

| Sample Location | Sample ID | Sample Date | Sample Interval (ft BLS) | PFOS | PFOA | 4:2 FTS | 6:2 FTS | 8:2 FTS | NEtFOSAA | NMeFOSAA | PFBS | PFDS | PFDA | PFDoA | PFHpS | PFHpA | PFHxS | PFHxA | PFNS | PFNA | PFPeS | PFPeA | PFTeA | PFTriA | PFUnA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SED-1 | SED-1(0-1') | 3/28/2019 | 0 - 1 | 0.78 I | 1.2 U | NA | NA | NA | 0.12 U | 0.06 U | 1.2 U | NA | 0.13 I | 0.06 U | NA | 0.23 U | 0.34 | 1.2 U | NA | 0.14 I | NA | NA | 0.06 U | 0.06 U | 0.06 U |
| SED-2 | SED-2(0-1') | 3/28/2019 | 0 - 1 | 1.8 I | 1.2 U | NA | NA | NA | 0.12 U | 0.06 U | 1.2 U | NA | 0.26 | 0.18 I | NA | 0.26 I | 0.20 I | 1.2 U | NA | 0.14 I | NA | NA | 0.13 I | 0.07 I | 0.11 I |
| SED-3 | SED-3(0-1') | 3/28/2019 | 0 - 1 | 15 | 2.2 I | NA | NA | NA | 0.13 U | 0.07 U | 1.3 U | NA | 2.2 | 0.74 | NA | 1.6 | 0.90 | 3.0 I | NA | 1.0 | NA | NA | 0.44 | 0.25 I | 0.57 |
| SED-4 | SED-4(0-0.5) | 3/28/2019 | 0 - 0.5 | 0.61 U | 1.5 U | NA | NA | NA | 0.15 U | 0.08 U | 1.5 U | NA | 0.08 U | 0.08 U | NA | 0.31 U | 0.11 I | 1.5 U | NA | 0.15 U | NA | NA | 0.08 U | 0.08 U | 0.08 U |
| SED-5 | SED 5 | 5/19/2020 | 0 - 1 | 0.79 I | 0.24 U | 0.47 U | 0.94 U | 0.47 U | 0.24 U | 0.24 U | 0.24 U | 0.24 U | 0.24 U | 0.24 U | 0.24 U | 0.47 U | 0.24 U | 0.47 U | 0.24 U | 0.24 U | 0.24 U | 0.94 U | 0.24 U | 0.24 U | 0.24 U |
| SED-6 | SED 6 | 5/20/2020 | 0 - 1 | 93 | 11 | 2.4 U | 100 | 2.4 U | 1.2 U | 1.2 U | 53 | 20 | 1.2 U | 1.2 U | 1.2 U | 12 | 390 | 28 | 1.2 U | 1.2 U | 72 | 24 | 1.2 U | 1.2 U | 1.2 U |
| SED-7 | SED 7 | 5/20/2020 | 0 - 1 | 4.5 | 0.25 I | 0.28 U | 5.3 | 1.7 | 0.14 I | 0.14 U | 0.14 U | 0.14 U | 0.14 U | 0.14 U | 0.14 U | 0.35 I | 0.29 I | 0.43 I | 0.14 U | 0.14 U | 0.14 U | 0.57 U | 0.14 U | 0.14 U | 0.14 U |

**Notes:**

1. Results are presented in micrograms per kilogram (µg/Kg).
2. Provisional cleanup target levels have not been established for sediment.
3. U indicates material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
4. I indicates result is between the laboratory method detection limit and the laboratory practical quantitation limit.
5. PFAS indicates per- and polyfluoroalkyl substances.
6. NA indicates not analyzed.

| Analyte | Acronym |
|---|---|
| Perfluorooctanesulfonic acid | PFOS |
| Perfluorooctanic acid | PFOA |
| 4:2 Fluorotelomer sulfonate | 4:2 FTS |
| 6:2 Fluorotelemer sulfonate | 6:2 FTS |
| 8:2 Fluorotelemer sulfonate | 8:2 FTS |
| N-ethylperfluorooctanesulfonamidoacetic acid | NEtFOSAA |
| N-methylperfluorooctanesulfonamidoacetic acid | NMeFOSAA |
| Perfluorobutanesulfonic acid | PFBS |
| Perfluorodecanesulfonic acid | PFDS |
| Perfluorodecanoic acid | PFDA |
| Perfluorododecanoic acid | PFDoA |
| Perfluoroheptanesulfonic acid | PFHpS |
| Perfluoroheptanoic acid | PFHpA |
| Perfluorohexanesulfonic acid | PFHxS |
| Perfluorohexanoic acid | PFHxA |
| Perfluorononanesulfonic acid | PFNS |
| Perfluorononanoic acid | PFNA |
| Perfluoropentanesulfonic acid | PFPeS |
| Perfluoropentanoic acid | PFPeA |
| Perfluorotetradecanoic acid | PFTeA |
| Perfluorotridecanoic Acid | PFTriA |
| Perfluoroundecanoic acid | PFUnA |

## TABLE 10: FIREFIGHTING FOAM ANALYTICAL RESULTS FOR PFAS COMPOUNDS

**Hillsborough Community College**

| Sample Location | Sample ID | Sample Date | PFOS | PFOA | PFOA + PFOS | NEtFOSAA | NMeFOSAA | PFBS | PFDA | PFDoA | PFHpA | PFHxS | PFHxA | PFNA | PFTeA | PFTriA | PFUnA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Firefighting Foam | PRODUCT | 3/28/2019 | 820 J | 350 J | 1,170 J | 2.0 UJ | 2.0 UJ | 2.0 UJ | 290 J | 15 IJ | 67 J | 31 J | 870 J | 10 UJ | 28 J | 2.0 IJ | 10 UJ |

**Notes:**

1. Results are presented in nanograms per liter (ng/L).
2. PFOA + PFOS indicates the summation of PFOA and PFOS concentrations.
3. U indicates material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
4. I indicates result is between the laboratory method detection limit and the laboratory practical quantitation limit.
5. J indicates and estimated value and/or the analysis did not meet established quality control criteria.
6. PFAS indicates per- and polyfluoroalkyl substances.

| Analyte | Acronym |
|---|---|
| Perfluorooctanesulfonic acid | PFOS |
| Perfluorooctanic acid | PFOA |
| N-ethylperfluorooctanesulfonamidoacetic acid | NEtFOSAA |
| N-methylperfluorooctanesulfonamidoacetic acid | NMeFOSAA |
| Perfluorobutanesulfonic acid | PFBS |
| Perfluorododecanoic acid | PFDoA |
| Perfluoroheptanoic Acid | PFHpA |
| Perfluorohexanesulfonic acid | PFHxS |
| Perfluorohexanoic acid | PFHxA |
| Perfluorononanoic acid | PFNA |
| Perfluorooctanoic acid | PFDA |
| Perfluorotetradecanoic acid | PFTeA |
| Perfluorotridecanoic acid | PFTriA |
| Perfluoroundecanoic acid | PFUnA |

# FIGURES

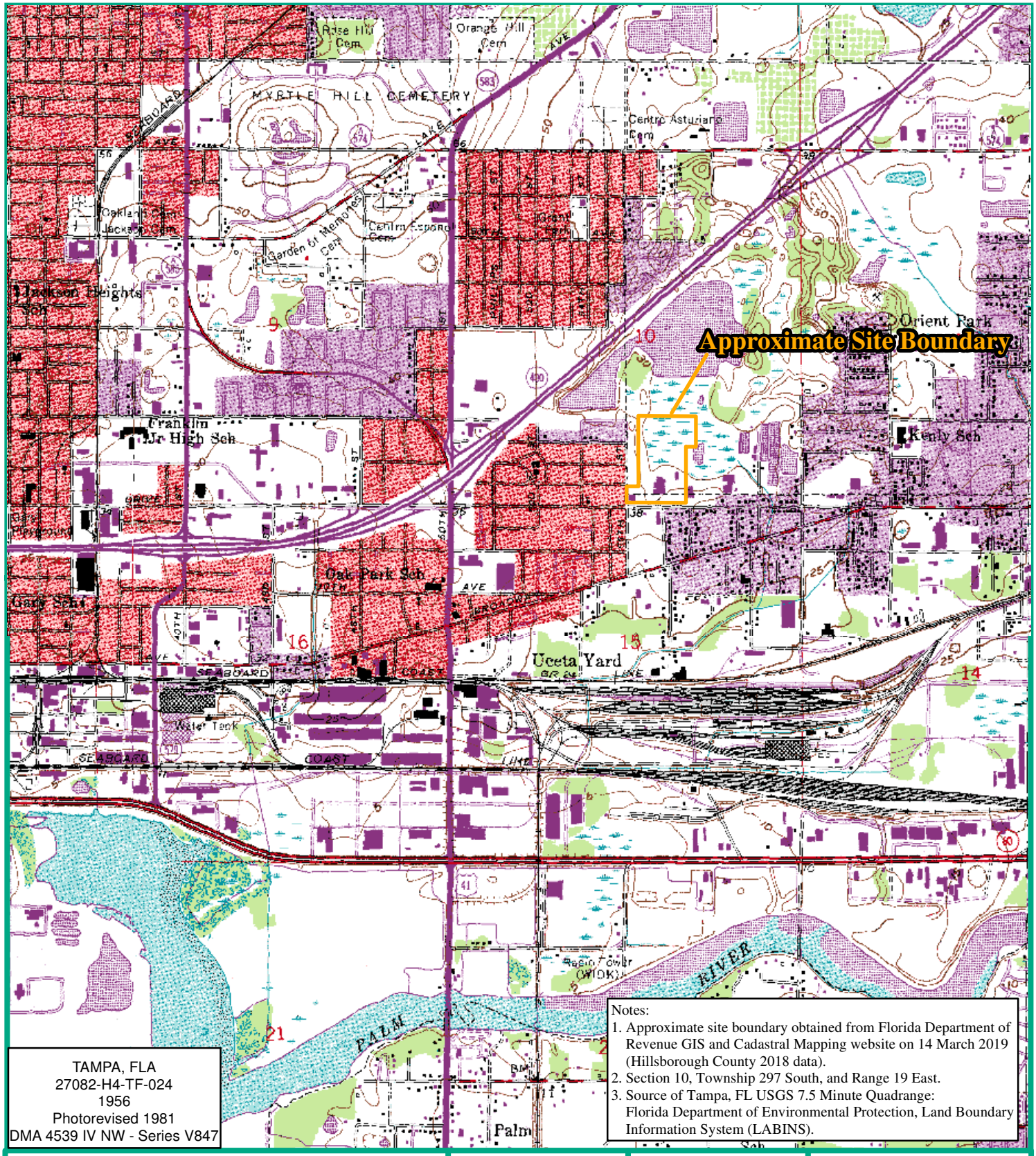



**Figure 1**
**USGS Site Topographic Map**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Date: July 22, 2020**

N

2,000 Feet

Path: (Titusville-01\Data)P:\0GIS\FR3561_HCC_FTF\MXDs\202005\Topo.mxd 5/4/2020 10:40:41 AM MAH

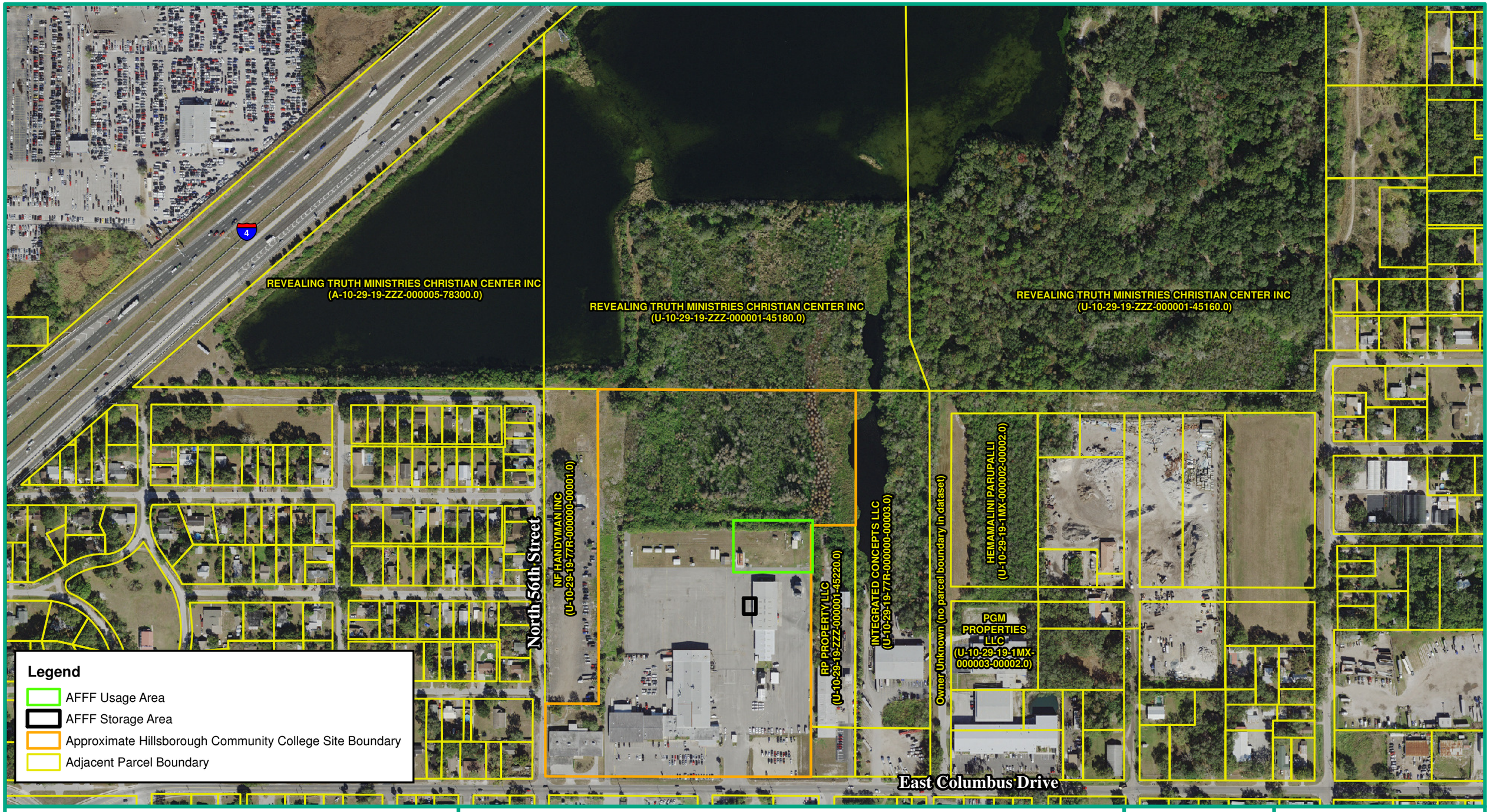



**Figure 2**
**Site Vicinity Map**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Notes:**
1. AFFF indicates aqueous film forming foam.
2. Parcel boundaries and approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
3. Source of 2017 aerial: Florida Department of Transportation Aerial Photo Look Up System website.

**Date: July 22, 2020**

N

300 Feet

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\Site Vicinity_202007.mxd 22 July 2020 MAH

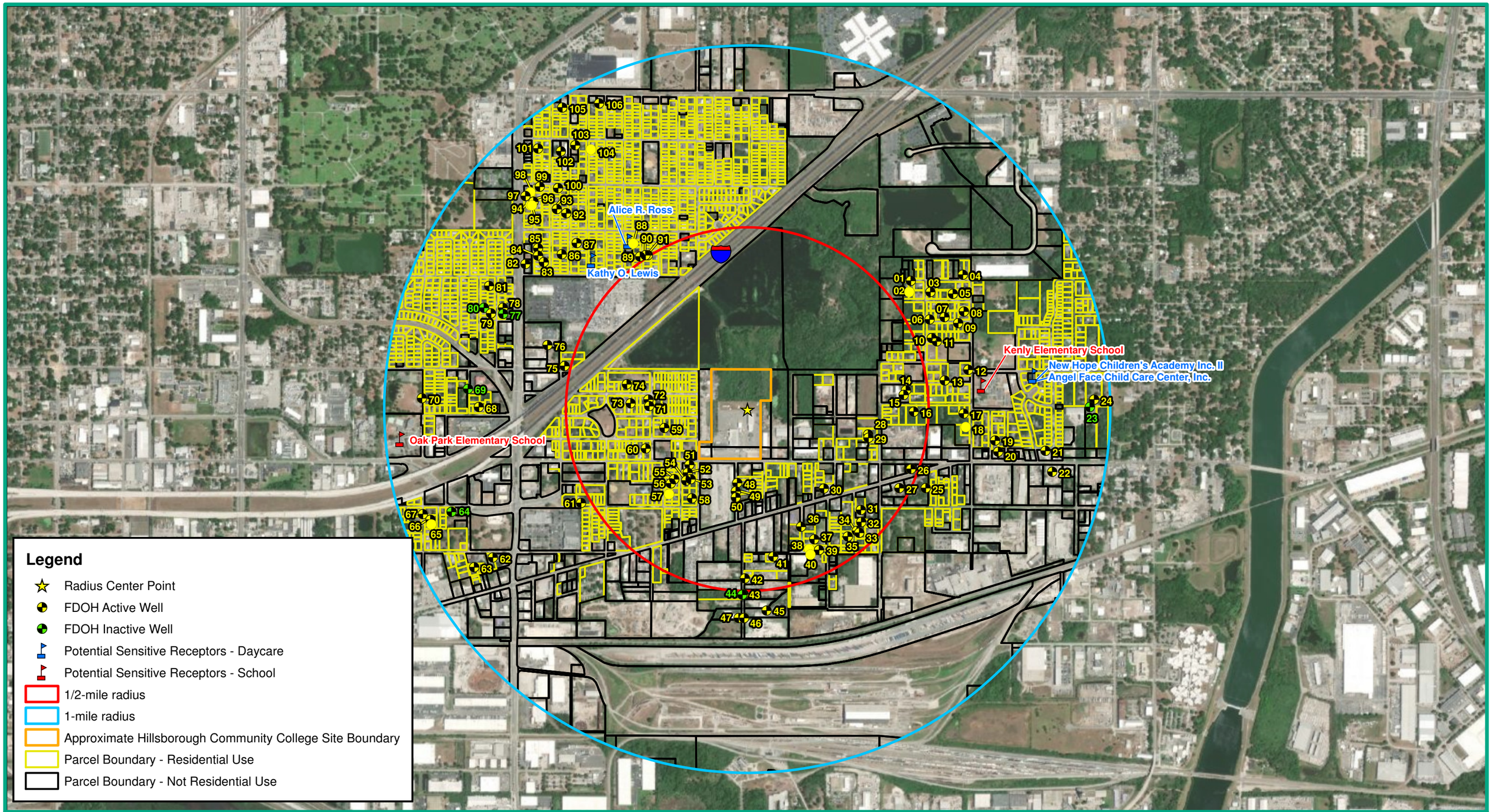



**Figure 3**
**Water Wells and Potential Receptors Within a 1-Mile Radius**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Notes:**
1. Source of Florida Department of Health (FDOH) wells: well surveillance program data download dated 23 Janaury 2020.
2. Active indicates the well is used on a regular basis or will be used within a reasonable period of time (2-3 months). Inactive indicates the well has not been regularly used within the past 6-12 months but is maintained in such a state that it could be used.
3. Parcel boundaries and approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
4. 2020 World Imagery Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

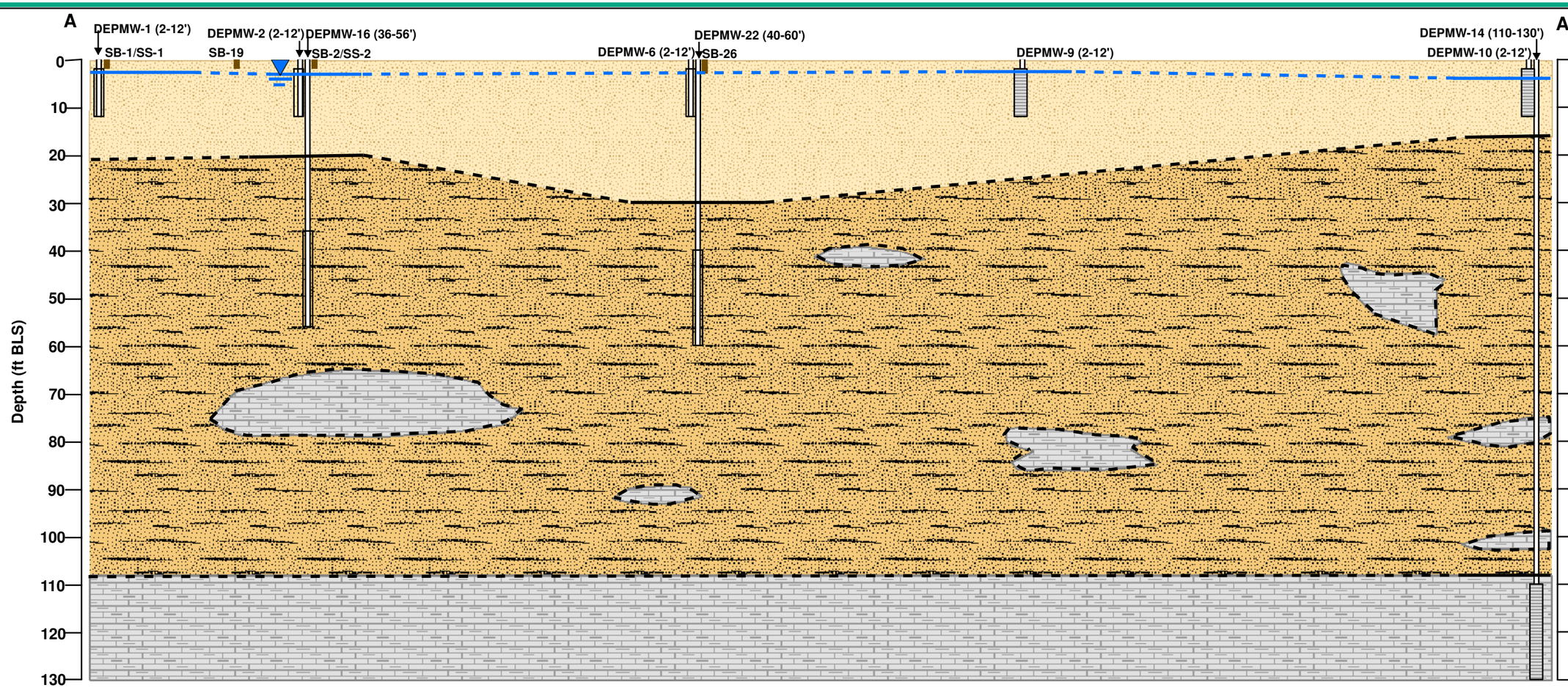
**Date: July 22, 2020**

N

1,300 Feet

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

(Tlusville-01)T:\0GIS\FR3561_HCC_FTF\MXDs\202006\Well_Survey_20200722.mxd 7/22/2020 2:26:22 PM MAH




## Legend

Shallow Water Table (dashed where inferred)

### Lithology

**Undifferentiated Surficial Deposits**

SAND with varying degrees of fines

**Hawthorn Group**

CLAY with varying degrees of sand and limestone

Limestone

Lithology (dashed where inferred)

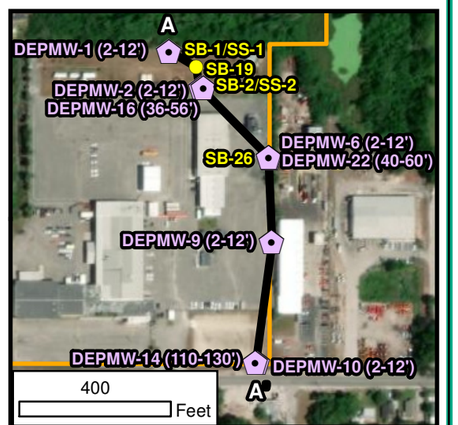



**Figure 4**
**Cross Section A-A'**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Notes:**
1. ft BLS indicates feet below land surface.
2. 2020 World Imagery Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

**Date: July 23, 2020**

Soil Boring

Monitoring Well

Screen

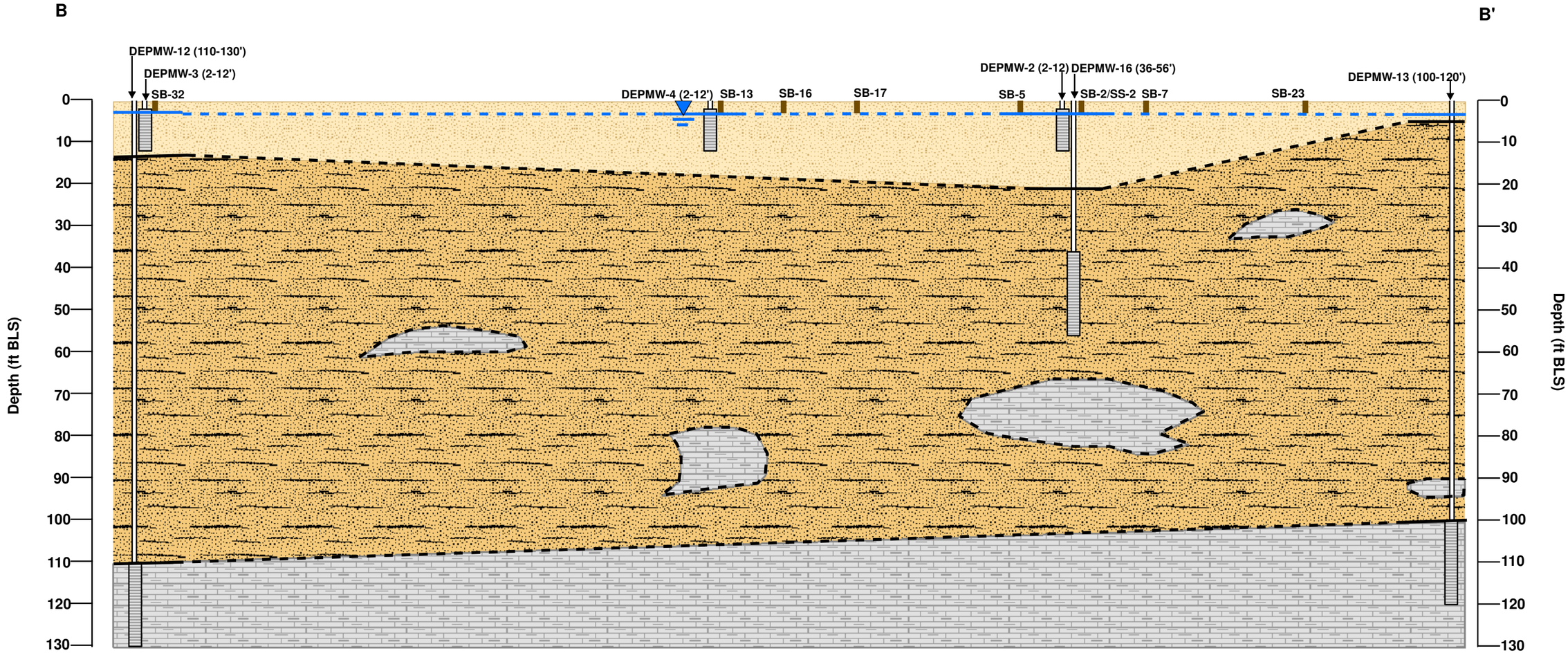
N

70 Feet

Vertical Exaggeration = 3

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\CrossSection_AA_202006.mxd 23 July 2020 MAH




## Legend

Shallow Water Table (dashed where inferred)

### Lithology

**Undifferentiated Surficial Deposits**

SAND with varying degrees of fines

**Hawthorn Group**

CLAY with varying degrees of sand and limestone

Limestone

Lithology (dashed where inferred)

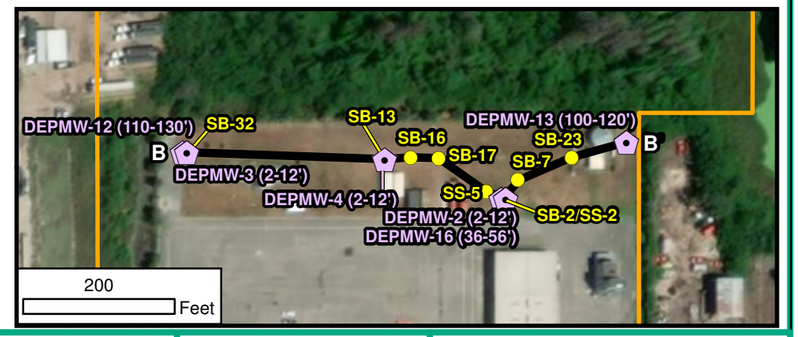



**Figure 5**
**Cross Section B-B'**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Notes:**
1. ft BLS indicates feet below land surface.
2. 2020 World Imagery Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

**Date: July 23, 2020**

Soil Boring

Monitoring Well

Screen

N

50 Feet

Vertical Exaggeration = 2

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\CrossSection_BB_202006.mxd 23 July 2020 MAH

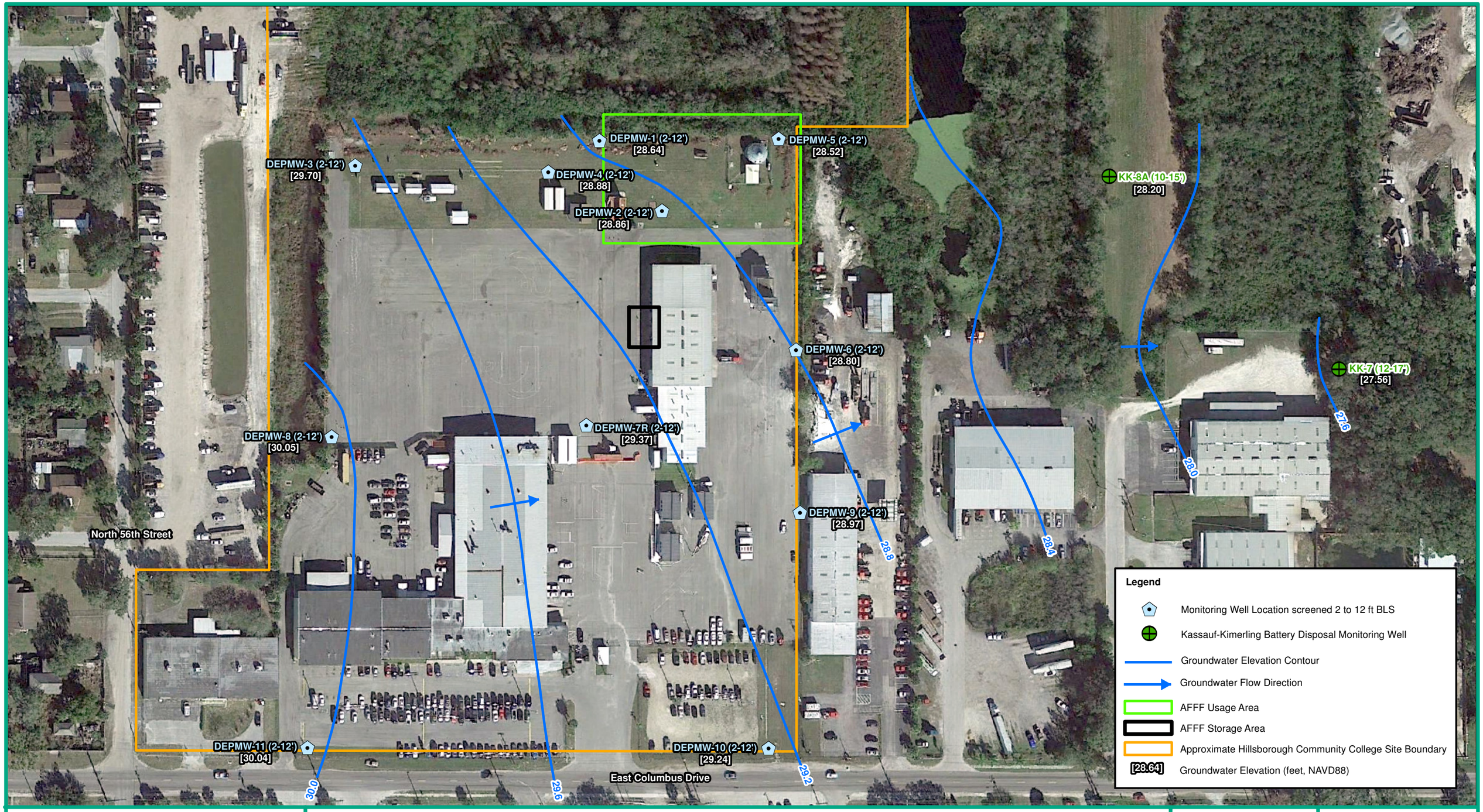



**Figure 6**
**Groundwater Elevation Map from 2 to 17 ft BLS - February 2020**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Notes:**
1. ft BLS indicates feet below land surface.
2. Depth-to-water measurements were collected on 24 February 2020.
3. NAVD88 indicates North American Vertical Datum 1988.
4. AFFF indicates aqueous film forming foam.
5. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
6. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

N

120
Feet
Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202005\GW_Elev_shallow_20200224.mxd 23 July 2020 MAH

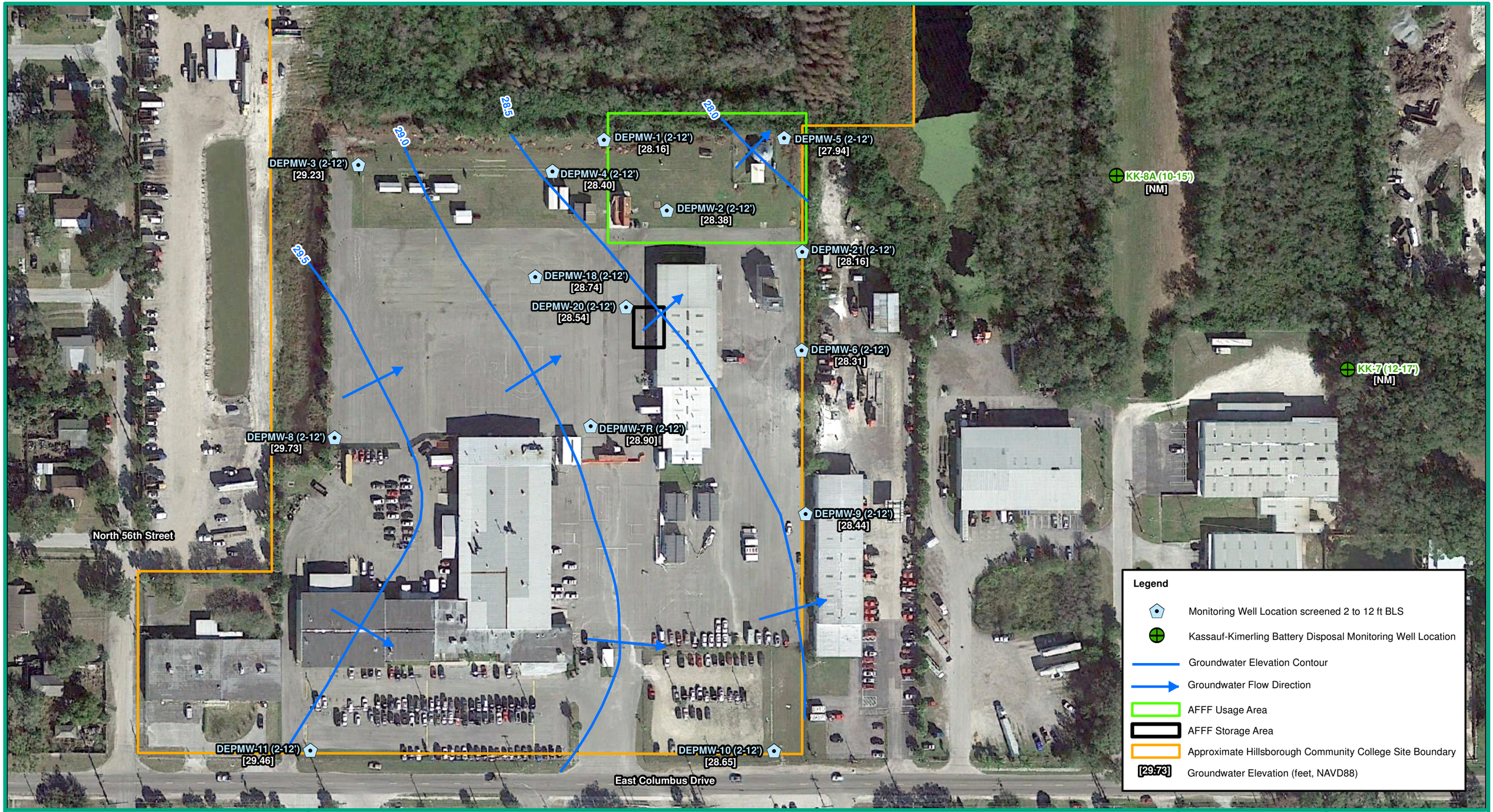



**Figure 7**
**Groundwater Elevation Map from 2 to 17 ft BLS - May 2020**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Notes:**
1. ft BLS indicates feet below land surface.
2. NM indicates not measured.
3. Depth-to-water measurements were collected on 26 May 2020.
4. NAVD88 indicates North American Vertical Datum 1988.
5. AFFF indicates aqueous film forming foam.
6. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
7. Source of 2019 aerial: Google Earth.

**Date: July 22, 2020**

N

120 Feet
Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) P:\0GIS\FR3561_HCC_FTF\MXDs\202006\GW_Elev_shallow_20200526.mxd 22 July 2020 MAH

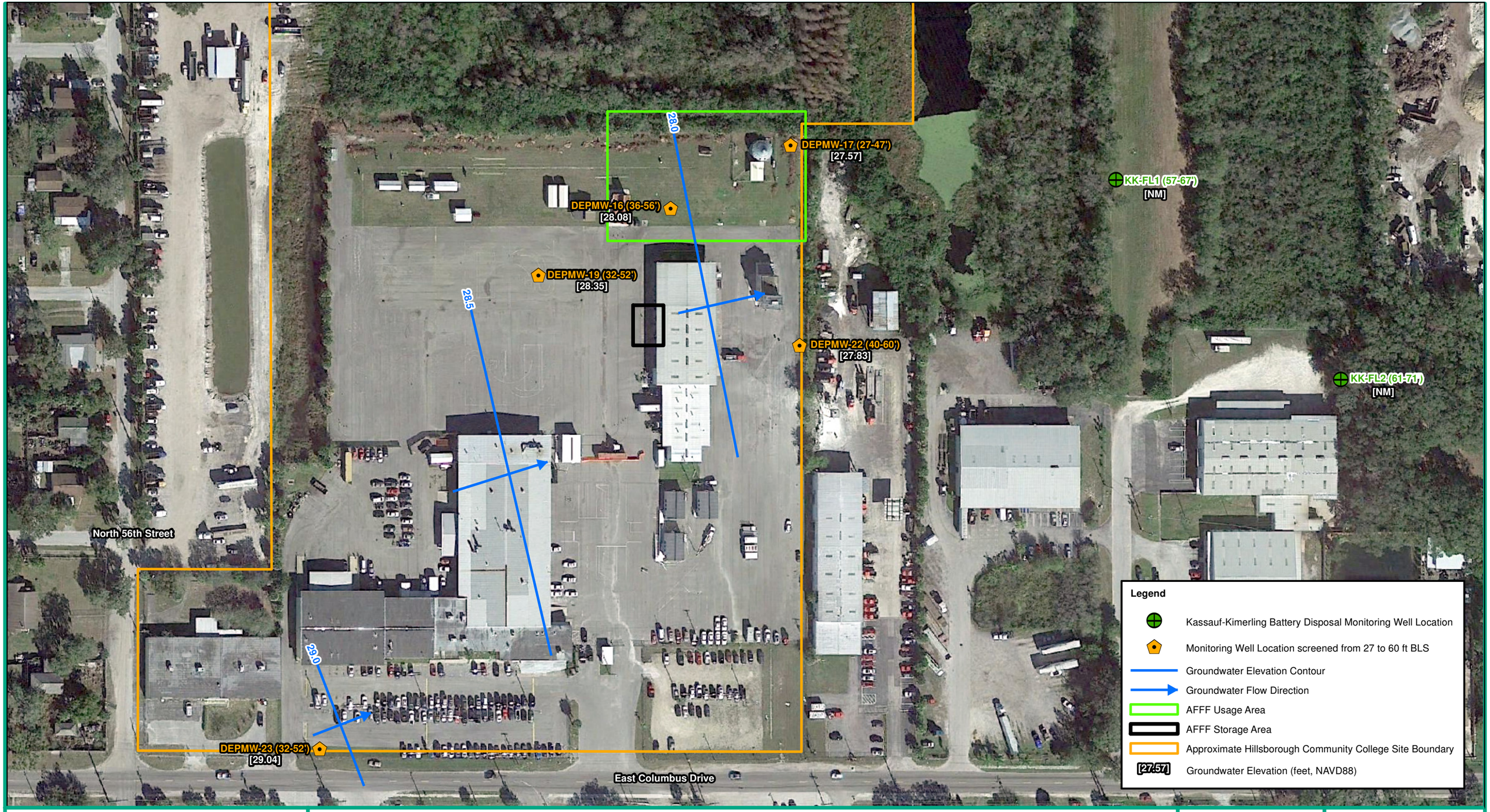



**Figure 8**
**Groundwater Elevation Map from 27 to 71 ft BLS - May 2020**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Notes:**
1. ft BLS indicates feet below land surface.
2. NM indicates not measured.
3. NAVD88 indicates North American Vertical Datum 1988.
4. Depth-to-water measurements were collected on 26 May 2020.
5. AFFF indicates aqueous film forming foam.
6. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
7. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

N

120 Feet
Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Tilusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\GW_Elev_int_2020526.mxd 23 July 2020 MAH

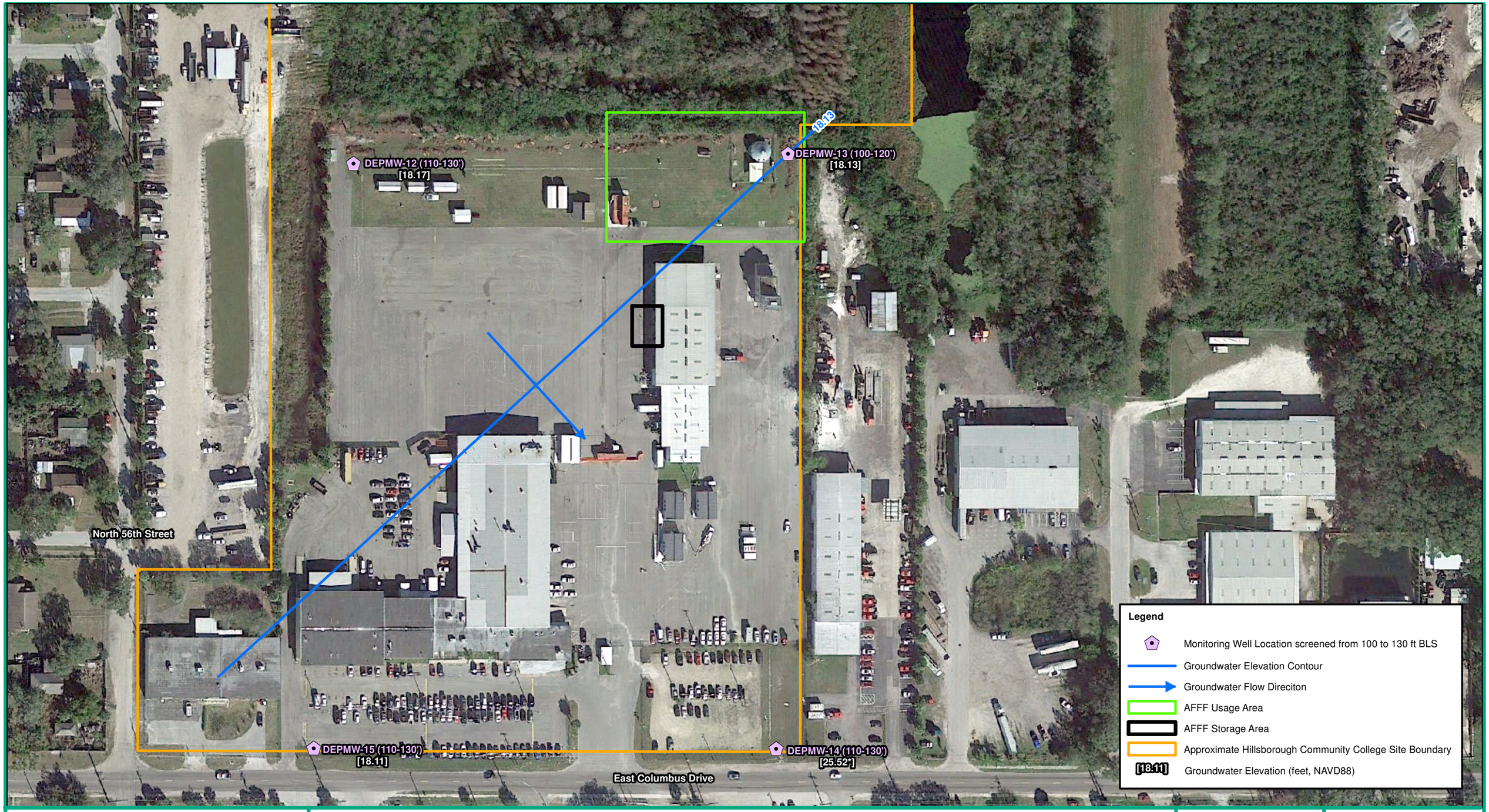



**Figure 9**
**Groundwater Elevation Map from 100 to 130 ft BLS - February 2020**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Notes:**
1. ft BLS indicates feet below land surface.
2. NAVD88 indicates North American Vertical Datum 1988.
3. Depth-to-water measurements were collected on 24 February 2020.
4. * indicates that value was not utilized for contouring purposes.
5. AFFF indicates aqueous film forming foam.
6. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
7. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

N

120
Feet
Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202005\GW_Elev_deep_20200224.mxd 23 July 2020 MAH

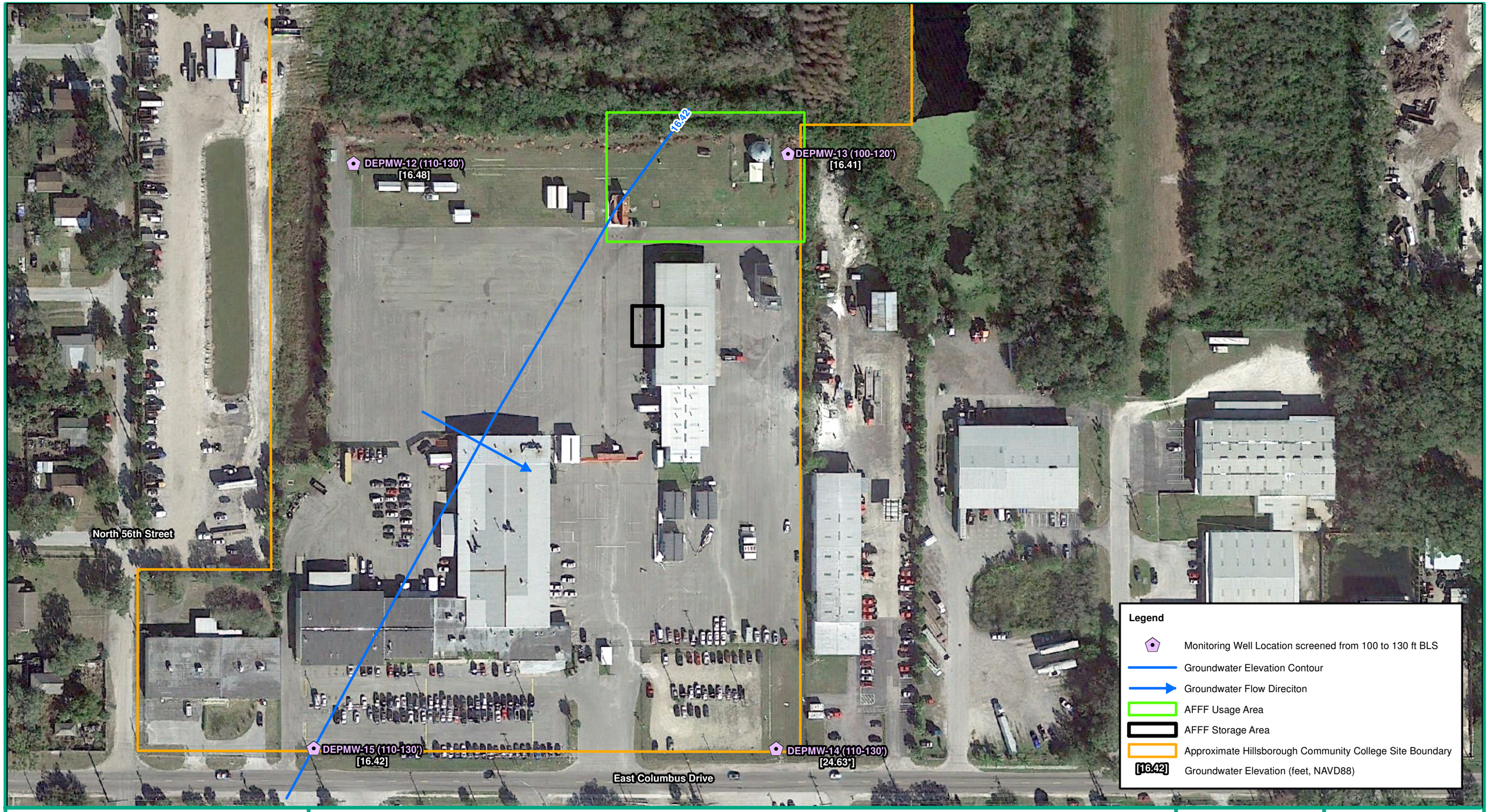



**Figure 10**
**Groundwater Elevation Map from 100 to 130 ft BLS - May 2020**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Notes:**
1. ft BLS indicates feet below land surface.
2. NAVD88 indicates North American Vertical Datum 1988.
3. Depth-to-water measurements were collected on 26 May 2020.
4. * indicates that value was not utilized for contouring purposes.
5. AFFF indicates aqueous film forming foam.
6. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
7. Source of 2019 aerial: Google Earth.

**Date: July 22, 2020**

N

120 Feet
Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) P:\0GIS\FR3561_HCC_FTF\MXDs\202006\GW_Elev_deep_20200526.mxd 22 July 2020 MAH

Burn Prop (Pan)
Burn Prop (Car)
Supply Well Compound
TMW-1 (2-12')
DEPMW-1 (2-12')
SB-15
SB-18
SS-1
SB-1
SB-20
SB-22
SB-25
DEPMW-5 (2-12')
SW-1
Sed-1
DEPMW-13 (110-120')
Supply Well
DEPMW-12 (110-130')
SB-32
DEPMW-3 (2-12')
DEPMW-4 (2-12')
SB-13
SB-16
SB-17
SB-19
SB-21
SB-23
SB-7
SB-9
SB-24
SB-11
SS-5
SS-3
SS-9
SB-8
SB-10
SB-12
SB-6
SB-14
SS-7
SS-10
SS-11
Sed-2
Area of Apparent Staining/Run off into Grass or Storm Drain
PV 5
RB 5
SB-5
SS-8
PV 4
RB 4
SB-4
SS-4
SS-6
PV 3
RB 3
SB-3
Sed-4
Conex Tower
SS-2
SB-2
TMW-2 (2-12')
DEPMW-2 (2-12')
Burn Tower
Area of Apparent Staining/Run off into Grass or Storm Drain
Area of Apparent Staining/Run off into Grass or Storm Drain
Area of Apparent Staining/Run off into Grass or Storm Drain
SB-26
Sed-3
DEPMW-6 (2-12')
Area of Apparent Staining/Run off into Grass or Storm Drain
KK-8A (10-15')
KK-FL1 (57-67')
KK-7 (12-17')
KK-FL2 (61-71')
SB-31
DEPMW-7R (2-12')
DEPMW-7 (2-12')
SB-27
DEPMW-8 (2-12')
North 56th Street
DEPMW-9 (2-12')
SB-28
DEPMW-11 (2-12')
DEPMW-15 (110-130')
SB-29
DEPMW-10 (2-12')
DEPMW-14 (110-130')
SB-30
East Columbus Drive

**Legend**

- Soil
- Sediment
- Pavement, Road Base, Soil
- Surface Water
- Temporary Monitoring Well
- Supply Well
- Kassauf-Kimerling Battery Disposal Monitoring Well
- Monitoring Well Location screened from 2 to 12 ft BLS
- Monitoring Well Location screened from 100 to 130 ft BLS
- Abandoned Monitoring Well Location
- AFFF Usage Area
- AFFF Storage Area
- Approximate Hillsborough Community College Site Boundary

**Figure 11**
**Sampling Locations**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Notes:**
1. ft BLS indicates feet below land surface.
2. AFFF indicates aqueous film forming foam.
3. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
4. Source of 2019 aerial: Google Earth.

**Date: July 22, 2020**

N

120
Feet
Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) P:\0GIS\FR3561_HCC_FTF\MXDs\202005\Sample_Locs_202005.mxd 22 July 2020 MAH

**Legend**

- Soil Sample with All Results Less than Provisional Leachability SCTL
- Pavement, Roadbase, and Soil Sample with All Results Less than Provisional Leachability SCTL
- Soil Sample with at least one result greater than Provisional Leachability SCTL
- AFFF Usage Area
- AFFF Storage Area
- Approximate Hillsborough Community College Site Boundary

| SB-46 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/20/2020 | 0 - 0.5 | **12** | 0.70 |
| | 0.5 - 2 | 3.0 | 0.28 I |
| | 2 - 3 | 0.29 I | 0.12 I |

| SB-18 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | **16** | 0.74 |
| | 0.5 - 2 | **85** | 0.70 |
| | 2 - 3 | **26** | **2.5** |

| SB-42 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/19/2020 | 0 - 0.5 | **26** | 0.60 |
| | 0.5 - 2 | **19** | 0.18 I |
| | 2 - 3 | **30** | 0.55 |

| SB-41 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/19/2020 | 0 - 0.5 | **19** | 0.24 I |
| | 0.5 - 2 | **43** | 0.14 I |
| | 2 - 3 | **8.7** | 0.15 I |

| SB-44 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/19/2020 | 0 - 0.5 | **11** | 1.6 |
| | 0.5 - 2 | 0.23 U | 1.5 |
| | 2 - 3 | 0.27 I | 0.85 |

| SB-20 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | **14** | 0.33 I |
| | 0.5 - 2 | **76** | 0.43 I |
| | 2 - 3 | **90** | 0.92 |

| SB-48 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/20/2020 | 0 - 0.5 | **39** | 0.27 I |
| | 0.5 - 2 | **21** | 0.24 I |
| | 2 - 3 | **28** | 0.28 I |

| SB-49 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/20/2020 | 0 - 0.5 | 1.8 | 0.15 I |
| | 0.5 - 2 | 0.45 I | 0.11 U |
| | 2 - 3 | 0.25 I | 0.12 U |

| SB-19 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | **7.9** | 0.91 |
| | 0.5 - 2 | **18** | 2.1 |
| | 2 - 3 | 3.1 | 0.68 |

| SB-43 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/19/2020 | 0 - 0.5 | **14** | 0.43 |
| | 0.5 - 2 | **19** | 0.24 I |
| | 2 - 3 | **63** | 0.19 I |

| SB-40 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/19/2020 | 0 - 0.5 | 1.9 | 0.16 I |
| | 0.5 - 2 | 0.61 I | 0.11 U |
| | 2 - 3 | 0.24 U | 0.12 U |

| SB-45 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/19/2020 | 0 - 0.5 | **100** | 2.3 |
| | 0.5 - 2 | 1.7 | 0.11 U |
| | 2 - 2.5 | 0.79 I | 0.11 U |

| SB-47 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/20/2020 | 0 - 0.5 | **21** | **9.5** |
| | 0.5 - 2 | 4.5 | **3.3** |
| | 2 - 3 | **46** | **3.7** |

| SB-39 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/19/2020 | 0 - 0.5 | 4.0 | **2.9** |
| | 0.5 - 2 | 0.82 I | 0.37 I |
| | 2 - 3 | 1.0 I | 0.23 I |

| SB-15 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | 2.5 | 0.26 I |
| | 0.5 - 2 | 0.25 I | 0.12 I |
| | 2 - 3 | 0.24 U | 0.12 U |

| SS-1 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/27/2019 | 0 - 1 | **170** | 1.8 I |
| | 1 - 2 | 5.7 | 1.1 U |

| SB-1 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 2 - 3 | 7.2 | 0.74 |

| SB-21 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0 - 0.5 | **50** | 1.6 |
| | 0.5 - 2 | **300** | **9.2** |
| | 2 - 3 | **21** | 1.7 |

| SB-17 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | 5.5 | 1.5 |
| | 0.5 - 2 | **30** | 1.8 |
| | 2 - 3 | 4.6 | 0.61 |

| SB-13 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | 1.9 | 0.30 I |
| | 0.5 - 2 | 0.23 U | 0.24 I |
| | 2 - 3 | 0.24 U | 0.12 U |

| SB-16 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | 3.4 | 0.29 I |
| | 0.5 - 2 | 0.83 I | 0.35 I |
| | 2 - 3 | 0.25 U | 0.12 U |

| SB-32 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | 1.4 | 0.31 I |
| | 0.5 - 2 | 0.26 U | 0.13 U |
| | 2 - 3 | 0.24 U | 0.12 U |

| SB-11 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | 0.44 I | 0.11 U |
| | 0.5 - 2 | 0.22 U | 0.11 U |
| | 2 - 3 | 0.24 U | 0.12 U |

| SS-3 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0 - 1 | 2.2 | 1.0 UJ |
| | 1 - 2 | 0.46 U | 1.1 U |

| SB-8 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | 0.43 I | 0.11 I |
| | 0.5 - 2 | 0.25 I | 0.12 U |
| | 2 - 3 | 0.24 U | 0.12 U |

| SB-10 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | 1.0 | 0.22 I |
| | 0.5 - 2 | 0.24 U | 0.12 U |
| | 2 - 3 | 0.25 U | 0.12 U |

| SB-22 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0 - 0.5 | **8.7** | 0.38 I |
| | 0.5 - 2 | **34** | 0.44 I |
| | 2 - 3 | **33** | 0.20 I |

| SB-6 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | 0.98 | 0.12 U |
| | 0.5 - 2 | 0.24 U | 0.12 U |
| | 2 - 3 | 0.24 U | 0.12 U |

| SB-23 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0 - 0.5 | **44** | 1.0 |
| | 0.5 - 2 | **60** | 0.76 |
| | 2 - 3 | 1.4 | 0.15 I |

| SB-12 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | 1.5 | 0.25 I |
| | 0.5 - 2 | 0.24 U | 0.12 U |
| | 2 - 3 | 0.25 U | 0.12 U |

| SB-14 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 0 - 0.5 | 1.5 | 0.19 I |
| | 0.5 - 2 | 0.26 I | 0.12 U |
| | 2 - 3 | 0.24 U | 0.12 U |

| SS-4 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0 - 1 | 0.57 I | **11 U** |
| | 1 - 2 | 0.46 U | 1.1 U |

| SB-24 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0 - 0.5 | **31** | 2.1 |
| | 0.5 - 2 | 4.2 | 2.1 |
| | 2 - 3 | 0.54 I | 0.17 I |

| PV-3 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0 - 0.1 | 0.19 J | 0.08 J |

| RB-3 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0.1 - 0.5 | 0.30 J | 0.09 U |

| SB-3 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0.5 - 2 | 0.23 U | 0.12 U |
| | 2 - 3 | 0.24 U | 0.12 U |

| SS-5 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0 - 1 | 4.4 | **3.1 I,J** |
| | 1 - 2 | 4.4 | 2.1 I |

| SS-6 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0 - 1 | 3.0 | 1.0 U,J |
| | 1 - 2 | 0.61 I | 1.1 U |

| SS-2 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/27/2019 | 0 - 1 | **120** | 1.7 I,J |
| | 1 - 2 | **370** | **5.7** |

| SB-2 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 2 - 3 | **55** | **2.6** |

| PV-4 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0 - 0.1 | 0.51 I | 0.08 U |

| RB-4 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0.1 - 0.5 | 0.37 J | 0.08 J |

| SB-4 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0.5 - 2 | 3.5 | 0.30 I |
| | 2 - 3 | 2.5 | 0.19 I |

| SS-8 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0 - 1 | **8.1** | 1.4 I |
| | 1 - 2 | 1.5 I | 1.1 U |

| SB-26 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/30/2020 | 0.5 - 2 | 0.73 I | 0.12 U |
| | 2 - 3 | 0.24 U | 0.12 U |

| SS-11 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0 - 1 | 1.3 I,J | 1.1 U |
| | 1 - 2 | 0.76 I | 1.1 U |

| SB-27 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0.5 - 2 | 0.22 U | 0.11 U |
| | 2 - 3 | 0.24 U | 0.12 U |

| SB-31 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0.5 - 2 | 0.24 U | 0.12 U |
| | 2 - 3 | 0.26 U | 0.13 U |

| SS-7 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0 - 1 | **190** | 1.1 I |
| | 1 - 2 | **380** | **3.8 I** |

| SB-7 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/27/2020 | 2 - 3 | **29** | 2.1 |

| SB-33 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/18/2020 | 0 - 0.5 | 3.7 | 0.51 |
| | 0.5 - 2 | 0.21 U | 0.10 U |
| | 2 - 3 | 0.26 U | 0.13 U |

| SS-10 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0 - 1 | 5.9 | 1.1 U |
| | 1 - 2 | 0.45 U | 1.1 U |

| SB-34 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/18/2020 | 0 - 0.5 | 3.5 | 0.32 I |
| | 0.5 - 2 | 1.4 | 0.82 |
| | 2 - 3 | 0.25 U | 0.70 |

| PV-5 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0 - 0.1 | 0.20 U | 0.09 U |

| RB-5 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0.1 - 0.5 | 0.23 J | 0.08 U |

| SB-5 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0.5 - 1.5 | 0.26 I | 0.12 U |

| SB-28 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/29/2020 | 0.5 - 2 | 6.4 | 0.27 I |
| | 2 - 3 | 0.51 I | 0.13 U |

| SB-35 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/18/2020 | 0 - 0.5 | **76** | 0.64 |
| | 0.5 - 2 | **260** | 0.68 |
| | 2 - 3 | **16** | 0.13 U |

| SS-9 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0 - 1 | **430** | 2.0 I |
| | 1 - 2 | **210** | 2.3 I |

| SB-9 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 2 - 3 | **270** | **4.9** |

| SB-36 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/18/2020 | 0 - 0.5 | 2.3 | 0.11 U |
| | 0.5 - 2 | 7.4 | 0.10 U |
| | 2 - 3 | 5.1 | 0.18 I |

| SB-37 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/18/2020 | 0 - 0.5 | **17** | 0.24 I |
| | 0.5 - 2 | 4.4 | 2.4 |
| | 2 - 3 | **80** | 0.37 I |

| SB-38 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/18/2020 | 0 - 0.5 | **8.7** | 0.28 I |
| | 0.5 - 2 | 4.4 | 0.11 U |
| | 2 - 3 | 0.38 I | 0.24 I |

| SB-29 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/29/2020 | 0 - 0.5 | 0.60 I | 0.11 U |
| | 0.5 - 2 | 0.22 U | 0.11 U |
| | 2 - 3 | 0.23 U | 0.12 U |

| SB-25 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0 - 0.5 | 4.8 | 0.30 I |
| | 0.5 - 2 | **40** | 0.22 I |
| | 2 - 3 | **11** | 0.15 I |

| SB-30 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/29/2020 | 0 - 0.5 | 0.46 I | 0.10 U |
| | 0.5 - 2 | 0.40 I | 0.11 U |
| | 2 - 3 | 0.24 U | 0.12 U |

| Provisional Cleanup Target Level | Perfluorooctanesulfonic acid (PFOS) | Perfluorooctanoic acid (PFOA) |
|---|---|---|
| Leachability SCTL | 7 | 2 |
| Residential SCTL | 1,300 | 1,300 |
| Industrial SCTL | 25,000 | 25,000 |

East Columbus Drive

# Figure 12
# Summary of Analytical Results in Soil, Pavement and Road Base
# Hillsborough Community College
# 5610 East Columbus Drive
# Tampa, Hillsborough County, Florida

**Notes:**
1. Results and screening critiera are presented in micorgrams per kilogram (µg/Kg).
2. I indicates result is between the laboratory method detection limit (MDL) and the laboratory practical quantitation limit.
3. J indicates estimated value and/or the analysis did not meet the quality control criteria.
4. U indicates material was analyzed for but not detected. The reported value is the MDL for the sample analyzed.
5. Depth is presented in feet (ft) below land surface (BLS).
6. Gray shaded, bold text indicates an exceedance of the Florida Department of Environmental Protection provisional leachability soil cleanup target level (SCTL).
7. AFFF indicates aqueous film forming foam.
8. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
9. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

N

80 Feet

Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\Soil_spiders_202006.mxd 23 July 2020 MAH

**Legend**

**Summary of PFOS in Soil**

- Result Less than Provisional Leachability SCTL
- Result Greater than Provisional Leachability SCTL
- No Data for this Depth Interval

**Summary of PFOS in Pavement and Road Base**

- Result Less than Provisional Leachability SCTL
- PFOS Greater than the FDEP Provisional L-SCTL Isocontour (dashed where inferred)
- AFFF Usage Area
- AFFF Storage Area
- Approximate Hillsborough Community College Site Boundary

SB-46 (12)
SB-47 (21)
SB-48 (39)
SB-49 (1.8)
SB-45 (100)
SB-41 (19)
SB-43 (14)
SB-42 (26)
SB-40 (1.9)
SB-44 (11)
SB-39 (4.0)
SB-15 (2.5)
SB-18 (16)
SB-20 (14)
SB-22 (8.7)
SB-25 (4.8)
SB-1
SS-1 (170*)
SB-38 (8.7)
SB-37 (17)
SB-16 (3.4)
SB-19 (7.9)
SB-32 (1.4)
SB-23 (44)
SB-36 (2.3)
SB-13 (1.9)
SB-17 (5.5)
SB-21 (50)
SB-35 (76)
SB-24 (31)
SB-11 (0.44 I)
SS-5 (4.4*)
SB-7
SB-9
SB-34 (3.5)
SB-8 (0.43 I)
SS-3 (2.2*)
SS-9 (430*)
SB-33 (3.7)
SS-4 (0.57 I,*)
SS-2 (120*)
SS-7 (190*)
SB-10 (1.0)
SB-12 (1.5)
SS-6 (3.0*)
SB-2
SS-11 (1.3 I,J*)
SB-6 (0.98)
SS-10 (5.9*)
SB-14 (1.5)
SB-3
SB-4
PV-5 (0.20 UI)
SB-5
PV-3 (0.19 J)
PV-4 (0.51 I)
RB-5 (0.23 J)
RB-3 (0.30 J)
RB-4 (0.37 J)
SS-8 (8.1*)
SB-26
SB-27
SB-31
SB-28
SB-29 (0.60 I)
SB-30 (0.46 I)
East Columbus Drive

| Provisional Cleanup Target Level | Perfluorooctanesulfonic acid (PFOS) |
|---|---|
| Leachability SCTL | 7 |
| Residential SCTL | 1,300 |
| Industrial SCTL | 25,000 |

# Figure 13
# Summary of PFOS in Soil from 0 to 0.5 ft BLS
# Hillsborough Community College
# 5610 East Columbus Drive
# Tampa, Hillsborough County, Florida

**Notes:**
1. Results and screening critiera are presented in micorgrams per kilogram (µg/Kg).
2. I indicates result is between the laboratory method detection limit (MDL) and the laboratory practical quantitation limit.
3. J indicates estimated value and/or the analysis did not meet the quality control criteria.
4. U indicates material was analyzed for but not detected. The reported value is the MDL for the sample analyzed.
5. * indicates location was collected during 2019 preliminary assessment activities from 0 to 1 feet (ft) below land surface (BLS).
6. SCTL indicates soil cleanup target level.
7. AFFF indicates aqueous film forming foam.
8. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
9. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

N

80 Feet

Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\Soil_PFOS_0to0_5ftBLS_202006.mxd 23 July 2020 MAH

**Legend**

**Summary of FPOS in Soil**

- Result Less than Provisional Leachability SCTL
- Result Greater than Provisional Leachability SCTL
- No Data for this Depth Interval
- PFOS Greater than the FDEP Provisional L-SCTL Isocontour (dashed where inferred)
- AFFF Usage Area
- AFFF Storage Area
- Approximate Hillsborough Community College Site Boundary

SB-46 (3.0)
SB-47 (4.5)
SB-49 (0.45 I)
SB-48 (21)
SB-45 (1.7)
SB-44 (0.23 U)
SB-43 (19)
SB-41 (43)
SB-42 (19)
SB-40 (0.61 I)
SB-39 (0.82 I)
SB-15 (0.25 I)
SB-20 (76)
SB-25 (40)
SS-1 (5.7*)
SB-1
SB-18 (85)
SB-22 (34)
SB-38 (4.4)
SB-37 (4.4)
SB-16 (0.83 I)
SB-19 (18)
SB-21 (300)
SB-36 (7.4)
SB-32 (0.26 U)
SB-13 (0.23 U)
SB-17 (30)
SB-23 (60)
SB-35 (260)
SS-7 (380*)
SB-11 (0.22 U)
SB-7
SB-9
SB-24 (4.2)
SB-34 (1.4)
SB-8 (0.25 I)
SS-3 (0.46 U*)
SS-5 (4.4*)
SB-2
SS-9 (210*)
SB-33 (0.21 U)
SS-4 (0.46 U*)
SS-2 (370*)
SB-10 (0.24 U)
SB-6 (0.24 U)
SB-12 (0.24 U)
SB-14 (0.26 I)
SS-10 (0.45 U*)
SS-11 (0.76 I*)
SB-3 (0.23 U)
SB-4 (3.5)
SB-5 (0.26 I)
SS-6 (0.61 I*)
SS-8 (1.5 I*)
SB-26 (0.73 I)
SB-27 (0.22 U)
SB-31 (0.24 U)
SB-28 (6.4)
SB-29 (0.22 U)
SB-30 (0.40 I)
East Columbus Drive

| Provisional Cleanup Target Level | Perfluorooctanesulfonic acid (PFOS) |
|---|---|
| Leachability SCTL | 7 |
| Residential SCTL | 1,300 |
| Industrial SCTL | 25,000 |

# Figure 14
# Summary of PFOS in Soil from 0.5 to 2 ft BLS
# Hillsborough Community College
# 5610 East Columbus Drive
# Tampa, Hillsborough County, Florida

**Notes:**
1. Results and screening critiera are presented in micorgrams per kilogram (µg/Kg).
2. I indicates result is between the laboratory method detection limit (MDL) and the laboratory practical quantitation limit.
3. U indicates material was analyzed for but not detected. The reported value is the MDL for the analyzed sample.
4. * indicates location was collected during 2019 preliminary assessment activities from 1 to 2 feet (ft) below land surface (BLS).
5. SCTL indicates soil cleanup target level.
6. AFFF indicates aqueous film forming foam.
7. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
8. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

N

80 Feet

Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Tallusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\Soil_PFOS_0_5to2ftBLS_202006.mxd 23 July 2020 MAH

**Legend**

**Summary of PFOS in Soil**

- Result Less than Provisional Leachability SCTL
- Result Greater than Provisional Leachability SCTL
- No Data for this Depth Interval
- PFOS Greater than the FDEP Provisional L-SCTL Isocontour (dashed where inferred)
- AFFF Usage Area
- AFFF Storage Area
- Approximate Hillsborough Community College Site Boundary

SB-46 (0.29 I)
SB-47 (46)
SB-48 (28)
SB-49 (0.25 I)
SB-45 (0.79 I)
SB-44 (0.27 I)
SB-43 (63)
SB-42 (30)
SB-41 (8.7)
SB-40 (0.24 U)
SB-39 (1.0 I)
SB-15 (0.24 U)
SB-20 (90)
SB-25 (11)
SB-38 (0.38 I)
SB-1 (7.2)
SS-1
SB-18 (26)
SB-22 (33)
SB-37 (80)
SB-16 (0.25 U)
SB-32 (0.24 U)
SB-36 (5.1)
SB-13 (0.24 U)
SB-19 (3.1)
SB-21 (21)
SB-23 (1.4)
SB-35 (16)
SB-17 (4.6)
SB-9 (270)
SB-11 (0.24 U)
SB-7 (29)
SB-24 (0.54 I)
SB-34 (0.25 U)
SB-8 (0.24 U)
SS-3
SS-5
SS-7
SS-9
SB-33 (0.26 U)
SB-10 (0.25 U)
SS-2
SB-12 (0.25 U)
SS-4
SS-6
SS-8
SS-10
SS-11
SB-6 (0.24 U)
SB-14 (0.24 U)
SB-5
SB-3 (0.24 U)
SB-4 (2.5)
SB-2 (55)
SB-26 (0.24 U)
SB-27 (0.24 U)
SB-31 (0.26 U)
SB-28 (0.51 I)
SB-29 (0.23 U)
SB-30 (0.24 U)
East Columbus Drive

| Provisional Cleanup Target Level | Perfluorooctanesulfonic acid (PFOS) |
|---|---|
| Leachability SCTL | 7 |
| Residential SCTL | 1,300 |
| Industrial SCTL | 25,000 |

# Figure 15
# Summary of PFOS in Soil from 2 to 3 ft BLS
# Hillsborough Community College
# 5610 East Columbus Drive
# Tampa, Hillsborough County, Florida

**Notes:**
1. Results and screening critiera are presented in micorgrams per kilogram (µg/Kg).
2. I indicates result is between the laboratory method detection limit (MDL) and the laboratory practical quantitation limit.
3. U indicates material was analyzed for but not detected. The reported value is the MDL for the analyzed sample.
4. ft BLS indicates feet below land surface.
5. SCTL indicates soil cleanup target level.
6. AFFF indicates aqueous film forming foam.
7. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
8. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

N

80 Feet

Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\Soil_PFOS_2to3ftBLS_202006.mxd 23 July 2020 MAH

**Legend**

**Summary of PFOA in Soil**

- Result Less than Provisional Leachability SCTL
- Result Greater than Provisional Leachability SCTL
- No Data for this Depth Interval

**Summary of PFOS in Pavement and Road Base**

- Result Less than Provisional Leachability SCTL
- PFOA Greater than the FDEP Provisional L-SCTL Isocontour (dashed where inferred)
- AFFF Usage Area
- AFFF Storage Area
- Approximate Hillsborough Community College Site Boundary

SB-46 (0.70)
SB-47 (9.5)
SB-48 (0.27 I)
SB-49 (0.15 I)
SB-45 (2.3)
SB-44 (1.6)
SB-43 (0.43)
SB-42 (0.60)
SB-41 (0.24 I)
SB-40 (0.16 I)
SB-39 (2.9)
SB-15 (0.26 I)
SB-18 (0.74)
SB-20 (0.33 I)
SB-25 (0.30 I)
SB-22 (0.38 I)
SB-1
SS-1 (1.8 I*)
SB-38 (0.28 I)
SB-37 (0.24 I)
SB-32 (0.31 I)
SB-16 (0.29 I)
SB-19 (0.91)
SB-36 (0.11 U)
SB-13 (0.30 I)
SB-17 (1.5)
SB-21 (1.6)
SB-23 (1.0)
SB-35 (0.64)
SS-7 (1.1 I*)
SB-11 (0.11 U)
SS-5 (3.1 I,J*)
SB-7
SB-9
SB-24 (2.1)
SB-34 (0.32 I)
SB-8 (0.11 I)
SS-3 (1.0 U,J*)
SS-9 (2.0 I*)
SB-33 (0.51)
SS-4 (11 U*)
SS-2 (1.7 I,J*)
SB-10 (0.22 I)
SB-12 (0.25 I)
SB-2
SS-11 (1.1 U*)
SB-6 (0.12 U)
SB-14 (0.19 I)
SB-3
SB-4
SB-5
SS-10 (1.1 U*)
PV-5 (0.09 U)
RB-5 (0.08 U)
SS-6 (1.0 U,J*)
SS-8 (1.4 I*)
PV-3 (0.08 J)
RB-3 (0.09 U)
PV-4 (0.08 U)
RB-4 (0.08 J)
SB-26
SB-26
SB-27
SB-31
SB-28
SB-29 (0.11 U)
SB-30 (0.10 U)
East Columbus Drive

| Provisional Cleanup Target Level | Perfluorooctanoic acid (PFOA) |
|---|---|
| Leachability SCTL | 2 |
| Residential SCTL | 1,300 |
| Industrial SCTL | 25,000 |

# Figure 16
# Summary of PFOA in Soil from 0 to 0.5 ft BLS
# Hillsborough Community College
# 5610 East Columbus Drive
# Tampa, Hillsborough County, Florida

**Notes:**
1. Results and screening critiera are presented in micorgrams per kilogram (µg/Kg).
2. I indicates result is between the laboratory method detection limit (MDL) and the laboratory practical quantitation limit.
3. J indicates estimated value and/or the analysis did not meet the quality control criteria.
4. U indicates material was analyzed for but not detected. The reported value is the MDL for the sample analyzed.
5. * indicates location was collected during 2019 preliminary assessment activities from 0 to 1 feet (ft) below land surface (BLS).
6. SCTL indicates soil cleanup target level.
7. AFFF indicates aqueous film forming foam.
8. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
9. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

N

80 Feet

Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Tallahassee-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\Soil_PFOA_0to0_5ftBLS_202006.mxd 23 July 2020 MAH

**Legend**

**Summary of PFOA in Soil**

- Result Less than Provisional Leachability SCTL
- Result Greater than Provisional Leachability SCTL
- No Data for this Depth Interval
- PFOA Greater than the FDEP Provisional L-SCTL Isocontour (dashed where inferred)
- AFFF Usage Area
- AFFF Storage Area
- Approximate Hillsborough Community College Site Boundary

SB-46 (0.28 I)
SB-47 (3.3)
SB-48 (0.24 I)
SB-49 (0.11)
SB-43 (0.24 I)
SB-45 (0.11 U)
SB-41 (0.14 I)
SB-40 (0.11 U)
SB-44 (1.5)
SB-42 (0.18 I)
SB-39 (0.37 I)
SB-15 (0.12 I)
SB-18 (0.70)
SB-20 (0.43 I)
SB-25 (0.22 I)
SB-1
SS-1 (1.1 U*)
SB-22 (0.44 I)
SB-38 (0.11 U)
SB-37 (2.4)
SB-16 (0.35 I)
SB-19 (2.1)
SB-32 (0.13 U)
SB-36 (0.10 U)
SB-13 (0.24 I)
SB-17 (1.8)
SB-21 (9.2)
SB-23 (0.76)
SB-35 (0.68)
SS-7 (3.8 I*)
SB-11 (0.11 U)
SB-7
SB-9
SB-24 (2.1)
SB-34 (0.82)
SB-8 (0.12 U)
SS-3 (1.1 U*)
SS-5 (2.1 I*)
SS-9 (2.3 I*)
SB-33 (0.10 U)
SS-4 (1.1 U*)
SS-2 (5.7*)
SB-10 (0.12 U)
SB-12 (0.12 U)
SS-6 (1.1 U*)
SB-2
SS-10 (1.1 U*)
SS-11 (1.1 U*)
SB-6 (0.12 U)
SB-14 (0.12 U)
SB-5 (0.12 U)
SB-3 (0.12 U)
SB-4 (0.30 I)
SS-8 (1.1 U*)
SB-26 (0.12 U)
SB-27 (0.11 U)
SB-31 (0.12 U)
SB-28 (0.27 I)
SB-29 (0.11 U)
SB-30 (0.11 U)
East Columbus Drive

| Provisional Cleanup Target Level | Perfluorooctanoic acid (PFOA) |
|---|---|
| Leachability SCTL | 2 |
| Residential SCTL | 1,300 |
| Industrial SCTL | 25,000 |

# Figure 17
# Summary of PFOA in Soil from 0.5 to 2 ft BLS
# Hillsborough Community College
# 5610 East Columbus Drive
# Tampa, Hillsborough County, Florida

**Notes:**
1. Results and screening critiera are presented in micorgrams per kilogram (µg/Kg).
2. I indicates result is between the laboratory method detection limit (MDL) and the laboratory practical quantitation limit.
3. U indicates material was analyzed for but not detected. The reported value is the MDL for the sample analyzed.
4. * indicates location was collected during 2019 preliminary assessment activities from 1 to 2 feet (ft) below land surface (BLS).
5. SCTL indicates soil cleanup target level.
6. AFFF indicates aqueous film forming foam.
7. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
8. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

N

80 Feet

Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Tallusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\Soil_PFOA_0_5to2ftBLS_202006.mxd 23 July 2020 MAH

**Legend**

**Summary of PFOA in Soil**

- Result Less than Provisional Leachability SCTL
- Result Greater than Provisional Leachability SCTL
- No Data for this Depth Interval
- PFOA Greater than the FDEP Provisional L-SCTL Isocontour (dashed where inferred)
- AFFF Usage Area
- AFFF Storage Area
- Approximate Hillsborough Community College Site Boundary

SB-46 (0.12 I)
SB-47 (3.7)
SB-48 (0.28 I)
SB-49 (0.12 U)
SB-45 (0.11 U)
SB-43 (0.19 I)
SB-42 (0.55)
SB-41 (0.15 I)
SB-40 (0.12 U)
SB-44 (0.85)
SB-15 (0.12 U)
SB-18 (2.5)
SB-20 (0.92)
SB-25 (0.15 I)
SB-39 (0.23 I)
SB-22 (0.20 I)
SB-1 (0.74)
SS-1
SB-38 (0.24 I)
SB-37 (0.37 I)
SB-16 (0.12 U)
SB-19 (0.68)
SB-32 (0.12 U)
SB-13 (0.12 U)
SB-17 (0.61)
SB-21 (1.7)
SB-23 (0.15 I)
SB-36 (0.18 I)
SB-9 (4.9)
SB-35 (0.13 U)
SB-7 (2.1)
SB-11 (0.12 U)
SB-24 (0.17 I)
SB-34 (0.70)
SB-2 (2.6)
SB-8 (0.12 U)
SS-3
SS-7
SS-9
SS-5
SB-33 (0.13 U)
SS-2
SB-10 (0.12 U)
SS-8
SB-12 (0.12 U)
SS-4
SS-6
SS-10
SS-11
SB-6 (0.12 U)
SB-14 (0.12 U)
SB-5
SB-3 (0.12 U)
SB-4 (0.19 I)
SB-26 (0.12 U)
SB-27 (0.12 U)
SB-31 (0.13 U)
SB-28 (0.13 U)
SB-29 (0.12 U)
SB-30 (0.12 U)
East Columbus Drive

| Provisional Cleanup Target Level | Perfluorooctanoic acid (PFOA) |
|---|---|
| Leachability SCTL | 2 |
| Residential SCTL | 1,300 |
| Industrial SCTL | 25,000 |

# Figure 18
# Summary of PFOA in Soil from 2 to 3 ft BLS
# Hillsborough Community College
# 5610 East Columbus Drive
# Tampa, Hillsborough County, Florida

**Notes:**
1. Results and screening critiera are presented in micorgrams per kilogram (µg/Kg).
2. I indicates result is between the laboratory method detection limit (MDL) and the laboratory practical quantitation limit.
3. U indicates material was analyzed for but not detected. The reported value is the MDL for the sample analyzed.
4. ft BLS indicates feet below land surface.
5. SCTL indicates soil cleanup target level.
6. AFFF indicates aqueous film forming foam.
7. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
8. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

N

80 Feet

Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Tallusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\Soil_PFOA_2to3ftBLS_202006.mxd 23 July 2020 MAH

**Legend**

- Pavement and Road Base Sample with All Results Less than Provisional Leachability SCTL
- AFFF Usage Area
- AFFF Storage Area
- Approximate Hillsborough Community College Site Boundary

| PV-3 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0 - 0.1 | 0.19 J | 0.08 J |
| RB-3 | | | |
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0.1 - 0.5 | 0.30 J | 0.09 U |

PV-3
RB-3

PV-4
RB-4

| PV-4 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0 - 0.1 | 0.51 I | 0.08 U |
| RB-4 | | | |
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0.1 - 0.5 | 0.37 J | 0.08 J |

PV-5
RB-5

| PV-5 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0 - 0.1 | 0.20 U | 0.09 U |
| RB-5 | | | |
| Date | Depth | PFOS | PFOA |
| 1/28/2020 | 0.1 - 0.5 | 0.23 J | 0.08 U |

East Columbus Drive

| Provisional Cleanup Target Level | Perfluorooctanesulfonic acid (PFOS) | Perfluorooctanoic acid (PFOA) |
|---|---|---|
| Leachability SCTL | 7 | 2 |
| Residential SCTL | 1,300 | 1,300 |
| Industrial SCTL | 25,000 | 25,000 |

# Figure 19
# Summary of Analytical Results in Pavement and Road Base
# Hillsborough Community College
# 5610 East Columbus Drive
# Tampa, Hillsborough County, Florida

**Notes:**
1. Results and screening critiera are presented in micorgrams per kilogram (µg/Kg).
2. I indicates result is between the laboratory method detection limit (MDL) and the laboratory practical quantitation limit.
3. J indicates estimated value and/or the analysis did not meet the quality control criteria.
4. U indicates material was analyzed for but not detected. The reported value is the MDL for the sample analyzed.
5. Depth is presented in feet (ft) below land surface (BLS).
6. SCTL indicates soil cleanup target level.
7. AFFF indicates aqueous film forming foam.
8. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
9. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

N

80 Feet

Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\PV_RB_spiders_202006.mxd 23 July 2020 MAH

| DEPMW-1 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/18/2020 | 2 - 12 | 3.6 | 4.3 | 7.9 |
| 2/18/2020 (DUP) | | 3.8 | 3.6 | 7.4 |
| 5/26/2020 | | 16 Y | 5.3 Y | 21 Y |

| TMW-1 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 3/27/2019 | 2 - 12 | **880** | **680** | **1,560** |
| 3/27/2019 (DUP) | | **870** | **570** | **1,440** |

| DEPMW-4 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/18/2020 | 2 - 12 | 3.6 | 4.2 | 7.8 |
| 5/26/2020 | | 3.6 IY | 22 Y | 26 Y |

| DEPMW-5 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/18/2020 | 2 - 12 | **2,400 E** | **250** | **2,650 E** |
| 5/27/2020 | | **980 Y** | **160 Y** | **1,140 Y** |

| TMW-2 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 3/27/2019 | 2 - 12 | **870** | **260** | **1,130** |

| DEPMW-3 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/18/2020 | 2 - 12 | 8.5 | 9.1 | 18 |
| 5/26/2020 | | 4.1 IY | 1.2 IY | 5.3 IY |

| KK-8A (10-15') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/19/2020 | 10 - 15 | 19 | 3.7 | 23 |
| 2/19/2020 (DUP) | | 20 | 3.9 | 24 |

| DEPMW-2 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/18/2020 | 2 - 12 | **3,800** | **2,000** | **5,800** |
| 5/26/2020 | | **22,000 Y** | **4,700 Y** | **26,700 Y** |

| DEPMW-21 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 5/26/2020 | 2 - 12 | 2.3 IY | 7.4 Y | 9.7 Y |

| DEPMW-18 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 5/26/2020 | 2 - 12 | 4.2 IY | 1.9 IY | 6.1 IY |

| DEPMW-20 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 5/26/2020 | 2 - 12 | 12 Y | 7.6 Y | 20 Y |

| DEPMW-6 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/24/2019 | 2 - 12 | 5.8 | 13 | 19 |
| 5/28/2020 | | 4.4 I | 6.8 | 11 |

| KK-7 (12-17') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/19/2020 | 12 - 17 | 16 | 9.4 | 25 |

| DEPMW-7 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/18/2020 | 2 - 12 | 10 I | 7.0 | 17 |

| DEPMW-7R (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 5/26/2020 | 2 - 12 | 9.1 | 4.1 | 13 |

| DEPMW-8 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/18/2020 | 2 - 12 | 7.6 | 3.7 | 11 |
| 5/26/2020 | | 7.2 IY | 1.0 UY | 7.7 Y |

| DEPMW-9 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/18/2020 | 2 - 12 | 26 | 5.0 | 31 |
| 5/26/2020 | | 18 Y | 4.1 Y | 22 Y |

| DEPMW-11 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/18/2020 | 2 - 12 | 10 | 4.3 | 14 |
| 5/27/2020 | | 8.3 | 2.4 I | 11 |

| DEPMW-10 (2-12') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/24/2019 | 2 - 12 | 24 | 5.2 | 29 |
| 5/27/2020 | | 33 Y | 5.3 Y | 38 Y |

DEPMW-1 (2-12')
TMW-1 (2-12')
DEPMW-5 (2-12')
DEPMW-3 (2-12')
DEPMW-4 (2-12')
KK-8A (10-15')
DEPMW-2 (2-12')
TMW-2 (2-12')
DEPMW-21 (2-12')
DEPMW-18 (2-12')
DEPMW-20 (2-12')
DEPMW-6 (2-12')
KK-7 (12-17')
DEPMW-8 (2-12')
DEPMW-7 (2-12')
DEPMW-7R (2-12')
DEPMW-9 (2-12')
North 56th Street
DEPMW-11 (2-12')
DEPMW-10 (2-12')
East Columbus Drive

**Legend**

- Temporary Monitoring Well
- Montoring Well Location screened from 2 to 12 ft BLS
- Kassauf-Kimerling Battery Disposal Monitoring Well

**Symbology Shading**

- Results Less than Provisional GCTL (70 ng/L)
- At Least One Result Greater than Provisional GCTL (70 ng/L)
- PFOS+PFOA Greater than the FDEP Provisional L-SCTL Isocontour (dashed where inferred)
- AFFF Usage Area
- AFFF Storage Area
- Approximate Hillsborough Community College Site Boundary

# Figure 20
# Summary of Analytical Results in Groundwater from 2 to 17 ft BLS
# Hillsborough Community College
# 5610 East Columbus Drive
# Tampa, Hillsborough County, Florida

**Notes:**

1. Results are provided in nanograms per liter (ng/L).
2. Depth is provided in feet below land surface (ft BLS).
3. E indicates result exceeded calibration range.
4. I indicates result is between the laboratory method detection limit and the laboratory practical quantitation limit.
5. U indicates material was analyzed for but not detected. The reported value is the MDL for the sample analyzed.
6. Y indicates sample was received with inadequate sample preservation.
7. PFOS + PFOA indicates the summation of perfluorooctanesulfonic acid (PFOS) and perfluorooctanic acid (PFOA).
8. Blue shaded, bold text indicates an exceedance of the Florida Department of Environmental Protection provisional groundwater cleanup target level (GCTL) of 70 ng/L.
9. Contours were generated using the summation concentration of PFOS + PFOA. The higher concentration between a sample and its duplicate was utilized.
10. TMW results were not utilized to generate contours.
11. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
12. DUP indicates duplicate sample.
13. TMW indicates temporary monitoring well.
14. AFFF indicates aqueous film forming foam.
15. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

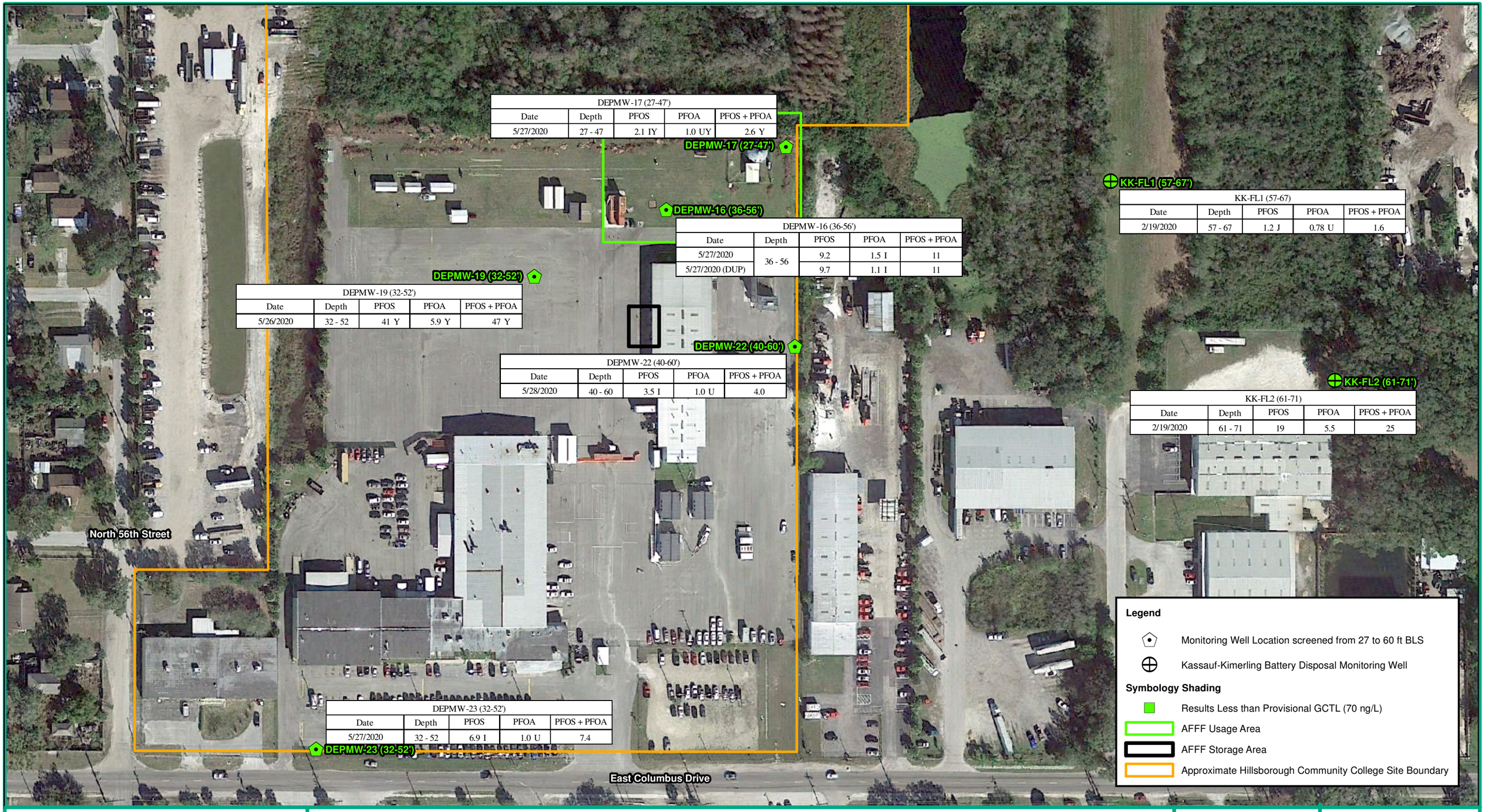
N

120 Feet

Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\GW_spiders_shallow_202006.mxd 23 July 2020 MAH




# Figure 21
# Summary of Analytical Results in Groundwater from 27 to 71 ft BLS
# Hillsborough Community College
# 5610 East Columbus Drive
# Tampa, Hillsborough County, Florida

**Notes:**

1. Results are provided in nanograms per liter (ng/L).
2. Depth is provided in feet below land surface (ft BLS).
3. J indicates result is less than the reporting limit but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value.
4. I indicates result is between the laboratory method detection limit and the laboratory practical quantitation limit.
5. U indicates material was analyzed for but not detected. The reported value is the MDL for the sample analyzed.
6. Y indicates sample was received with inadequate sample preservation.
5. PFOS + PFOA indicates the summation of perfluorooctanesulfonic acid (PFOS) and perfluorooctanic acid (PFOA).
6. The Florida Department of Environmental Protection provisional groundwater cleanup target level (GCTL) for PFOS and PFOA is 70 ng/L.
7. AFFF indicates aqueous film forming foam.
8. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
10. Source of 2019 aerial: Google Earth.
11. DUP indicates duplicate sample.

**Date: July 23, 2020**

N

120 Feet

Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\GW_spiders_intermediate_202006.mxd 23 July 2020 MAH

| Supply Well | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 3/28/2019 | NA | 4.6 I | 1.9 U | 5.6 |
| 3/28/2019 (DUP) | | 5.0 I | 1.9 U | 6.0 |

Supply Well

DEPMW-12 (110-130')

| DEPMW-12 (110-130') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/24/2019 | 110 - 130 | 14 | 8.1 | 22 |
| 5/26/2020 | | 23 Y | 6.0 Y | 29 Y |

DEPMW-13 (100-120')

| DEPMW-13 (100-120') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/24/2019 | 100 - 120 | 1.0 J | 0.66 U | 1.3 |
| 5/27/2020 | | 2.0 UY | 1.0 UY | 1.5 UY |
| 5/27/2020 (DUP) | | 2.0 UY | 1.0 UY | 1.5 UY |

North 56th Street

| DEPMW-15 (110-130') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/24/2019 | 110 - 130 | 11 | 0.72 U | 11 |
| 5/27/2020 | | 8.9 | 1.0 U | 9.4 |

DEPMW-15 (110-130')

| DEPMW-14 (110-130') | | | | |
|---|---|---|---|---|
| Date | Depth | PFOS | PFOA | PFOS + PFOA |
| 2/24/2019 | 110 - 130 | 0.45 U | 0.70 U | 0.58 U |
| 5/27/2020 | | 2.0 UY | 1.0 UY | 1.5 UY |

DEPMW-14 (110-130')

East Columbus Drive

**Legend**

- Supply Well
- Monitoring Well Location screened from 100 to 130 ft BLS

**Symbology Shading**

- Results Less than Provisional GCTL (70 ng/L)
- AFFF Usage Area
- AFFF Storage Area
- Approximate Hillsborough Community College Site Boundary

# Figure 22
# Summary of Analytical Results in Groundwater from 100 to 130 ft BLS
# Hillsborough Community College
# 5610 East Columbus Drive
# Tampa, Hillsborough County, Florida

**Notes:**

1. Results are provided in nanograms per liter (ng/L).
2. Depth is provided in feet below land surface (ft BLS).
3. J indicates result is less than the reporting limit but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value.
4. I indicates result is between the laboratory MDL and the laboratory practical quantitation limit.
5. U indicates material was analyzed for but not detected. The reported value is the MDL for the sample analyzed.
6. Y indicates sample was received with inadequate sample preservation.
6. NA indicated not applicable.
7. PFOS + PFOA indicates the summation of perfluorooctanesulfonic acid (PFOS) and perfluorooctanic acid (PFOA).
8. The Florida Department of Environmental Protection provisional groundwater cleanup target level (GCTL) for PFOS and PFOA is 70 ng/L.
9. AFFF indicates aqueous film forming foam.
10. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
11. Source of 2019 aerial: Google Earth.
12. DUP indicates duplicate sample.

**Date: July 23, 2020**

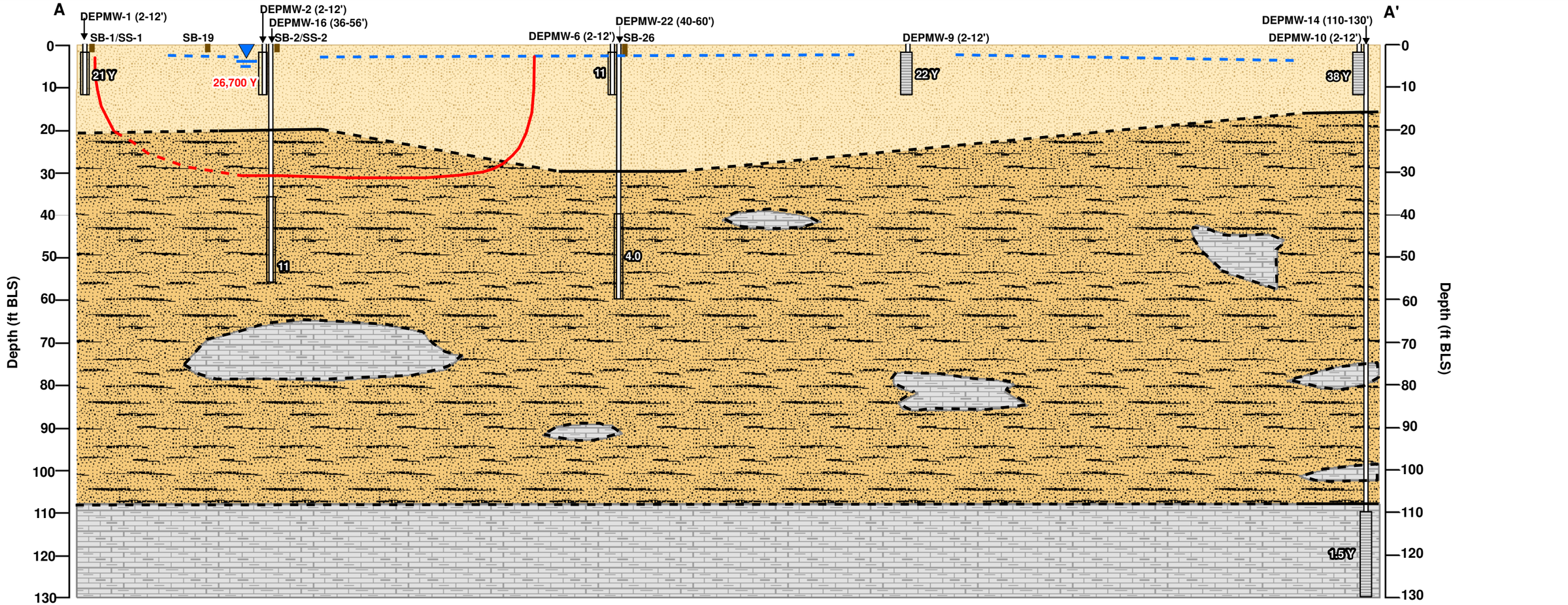
N

120 Feet

Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Tallsville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\GW_spiders_deep_202006.mxd 23 July 2020 MAH




## Legend

- Shallow Water Table (dashed where inferred)
- PFOS+PFOA 70 ng/L Isopleth (dashed where inferred)

### Lithology

**Undifferentiated Surficial Deposits**

- SAND with varying degrees of fines

**Hawthorn Group**

- CLAY with varying degrees of sand and limestone
- Limestone
- Lithology (dashed where inferred)

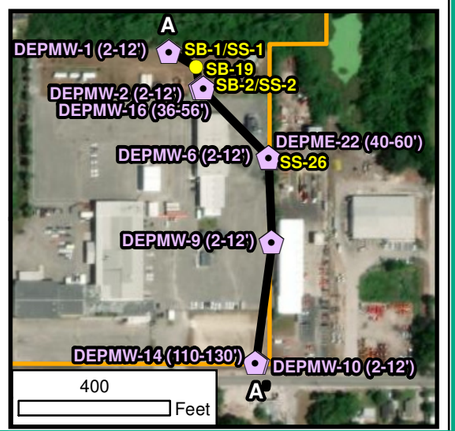



**Figure 23**
**Vertical Extent of PFOS and PFOA in Groundwater from A-A'**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Notes:**
1. ft BLS indicates feet below land surface.
2. Results are provided in nanograms per liter (ng/L).
3. Analytical results are shown for the summation of perfluorooctanesulfonic acid (PFOS) and perfluorooctanic acid (PFOA) from the May 2020 sampling event.
4. The Florida Department of Environmental Protection provisional groundwater cleanup target level (GCTL) for the summation of PFOS and PFOA is 70 ng/L.
5. Contours were generated using the summation concentration of PFOS + PFOA. The highest concentration between a sample and its duplicate was utilized.
6. Y indicates sample was received with inadequate sample preservation.
7. Red text indicates result is greater than the PFOS+PFOA GCTL.
8. 2020 World Imagery Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

Soil Boring | Monitoring Well
Screen
PFOS+PFOA (ng/L)

**Date: July 23, 2020**

N
70 Feet
Vertical Exaggeration = 3

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\VerticalExtent_PFOSPFOA_AA.mxd 23 July 2020MAH

B

B'

DEPMW-12 (110-130')
DEPMW-3 (2-12')
SB-32
DEPMW-4 (2-12')
SB-13
SB-16
SB-17
DEPMW-2 (2-12)
SB-5
DEPMW-16 (36-56')
SB-2/SS-2
SB-7
SB-23
DEPMW-13 (100-120')

5.3Y
26Y
26,700 Y
11
1.5Y
29Y

Depth (ft BLS)

0
10
20
30
40
50
60
70
80
90
100
110
120
130

## Legend

Shallow Water Table (dashed where inferred)

PFOS+PFOA 70 ng/L Isopleth

### Lithology

**Undifferentiated Surficial Deposits**

SAND with varying degrees of fines

**Hawthorn Group**

CLAY with varying degrees of sand and limestone

Limestone

Lithology (dashed where inferred)

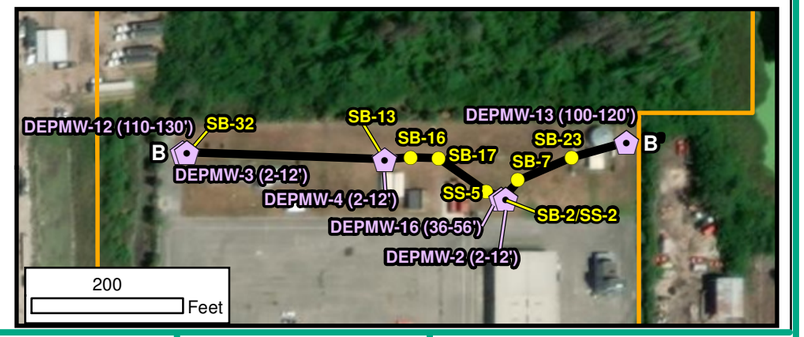



**Figure 24**
**Vertical Extent of PFOS and PFOA in Groundwater from B-B'**
**Hillsborough Community College**
**5610 East Columbus Drive**
**Tampa, Hillsborough County, Florida**

**Notes:**
1. ft BLS indicates feet below land surface.
2. Results are provided in nanograms per liter (ng/L).
3. Analytical results are shown for the summation of perfluorooctanesulfonic acid (PFOS) and perfluorooctanic acid (PFOA) from the May 2020.
4. The Florida Department of Environmental Protection provisional groundwater cleanup target level (GCTL) for the summation of PFOS and PFOA is 70 ng/L.
5. Contours were generated using the summation concentration of PFOS + PFOA. The highest concentration between a sample and its duplicate was utilized.
6. Y indicates sample was received with inadequate sample preservation.
7. Red text indicates result is greater than the PFOS+PFOA GCTL.
8. 2020 World Imagery Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

Soil Boring

Monitoring Well

Screen

PFOS+PFOA (ng/L)

**Date: July 23, 2020**

N

50 Feet

Vertical Exaggeration = 2

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\VerticalExtent_PFOSPFOA_BB.mxd 23 July 2020 MAH

| SW-4 | | | |
|---|---|---|---|
| Date | PFOS | PFOA | PFOS + PFOA |
| 5/20/2020 | 300 | 46 | 346 |

| SW-3 | | | |
|---|---|---|---|
| Date | PFOS | PFOA | PFOS + PFOA |
| 5/20/2020 | 1,200 | 170 | 1,370 |

| Sed-6 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/20/2020 | 0-1 | 93 | 11 |

| Sed-7 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/20/2020 | 0-1 | 4.5 | 0.25 I |

| SW-2 | | | |
|---|---|---|---|
| Date | PFOS | PFOA | PFOS + PFOA |
| 5/19/2020 | 84 | 15 | 99 |
| 5/19/2020 DUP | 85 | 13 | 98 |

| SW-1 | | | |
|---|---|---|---|
| Date | PFOS | PFOA | PFOS + PFOA |
| 3/28/2019 | 22 | 23 | 45 |
| 3/28/2019 DUP | 22 | 21 | 43 |

| Sed-1 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0-1 | 0.78 I | 1.2 U |

| Sed-5 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 5/19/2020 | 0-1 | 0.79 I | 0.24 U |

| Sed-2 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0-1 | 1.8 I | 1.2 U |

| Sed-4 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0-0.5 | 0.61 U | 1.5 U |

| Sed-3 | | | |
|---|---|---|---|
| Date | Depth | PFOS | PFOA |
| 3/28/2019 | 0-1 | 15 | 2.2 I |

SW-4
Sed-7
SW-3
Sed-6
SW-1
Sed-1
SW-2
Sed-5
Sed-2
Sed-4
Sed-3

North 56th Street

East Columbus Drive

**Legend**

- Sediment
- Surface Water
- AFFF Usage Area
- AFFF Storage Area
- Approximate Hillsborough Community College Site Boundary

# Figure 25
# Summary of Analytical Results in Sediment and Surface Water
# Hillsborough Community College
# 5610 East Columbus Drive
# Tampa, Hillsborough County, Florida

**Notes:**
1. Surface water results are provided in nanograms per liter (ng/L). Sediment results are provided in micrograms per kilogram (µg/Kg).
2. Depth is provided in feet below land surface (ft BLS).
3. I indicates result is between the laboratory method detection limit(MDL) and the laboratory practical quantitation limit.
4. U indicates material was analyzed for but not detected. The reported value is the MDL for the sample analyzed.
5. DUP indicates duplicate sample.
6. PFOS + PFOA indicates the summation of perfluorooctanesulfonic acid (PFOS) and perfluorooctanic acid (PFOA).
7. Provisional cleanup target levels have not been established for sediment or surface water.
8. AFFF indicates aqueous film forming foam.
9. Approximate site boundary obtained from Hillsborough County Property Appraiser's website, file dated 13 March 2020 (ftp://ftp.hcpafl.org/shapefiles).
10. Source of 2019 aerial: Google Earth.

**Date: July 23, 2020**

N

120 Feet

Scale is Approximate

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Path: (Titusville-01\DATA) T:\0GIS\FR3561_HCC_FTF\MXDs\202006\Sed_SW_Spiders.mxd 23 July 2020 MAH

# ATTACHMENT A
# LABORATORY REPORTS

# Chemical Analysis Report

**SIS-2020-05-21-02**

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Hillsborough Community College Soil/Water**
Request ID: **RQ-2020-05-18-30**
Customer: **SIS**
Project ID: **FC-HILLSCC**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Road
Twin Towers Bldg. MS# 4515
Tallahassee, FL 32399
Attn: Jeff Newton

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 04-JUN-2020 11:04

**NON-CONFORMANCE REPORT INCLUDED**

## Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical group are included in this report: Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to $1.3 \times 10^3$ or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 12:45**

**Field ID: SB-33(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172930 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.36 | I | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 1.4 | | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 16 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.2 | | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.19 | I | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 3.7 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.51 | | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 2.8 | | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.94 | | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.42 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.20 | I | ug/Kg | P382478 | |
| 2172950 | SM 2540 G (20th) | % Solid** | 93.8 | A | % | P382584 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 12:45**

**Field ID: SB-33(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172931 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.26 | I | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.2 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.30 | I | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.10 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.41 | U | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.17 | I | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.41 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.10 | U | ug/Kg | P382478 | |
| 2172951 | SM 2540 G (20th) | % Solid** | 93.2 | | % | P382584 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 12:48**

**Field ID: SB-33(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172932 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.26 | U | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.50 | I | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.26 | U | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.26 | U | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.13 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.13 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.53 | U | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.26 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.15 | I | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.53 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.26 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.13 | U | ug/Kg | P382478 | |
| 2172952 | SM 2540 G (20th) | % Solid** | 81.9 | | % | P382584 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 11:55**

**Field ID: SB-34(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172933 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.29 | I | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.25 | I | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.24 | I | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.51 | I | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.87 | I | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 1.3 | | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.24 | I | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 3.5 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.32 | I | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | I | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.21 | I | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.76 | I | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 3.3 | | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.23 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.30 | I | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.46 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.23 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 1.3 | | ug/Kg | P382478 | |
| 2172953 | SM 2540 G (20th) | % Solid** | 89.7 | | % | P382584 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample. Some MDLs are elevated due to required dilution of sample matrix.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 11:59**

**Field ID: SB-34(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172934 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.13 | I | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.58 | I | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 11 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.58 | I | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 1.4 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.82 | | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.10 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.61 | I | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.59 | | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.42 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.10 | U | ug/Kg | P382478 | |
| 2172954 | SM 2540 G (20th) | % Solid** | 92.6 | | % | P382584 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 12:01**

**Field ID: SB-34(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172935 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.23 | I | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.99 | | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 15 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.71 | I | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.25 | U | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.70 | | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.61 | I | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.25 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 1.2 | | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.49 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.25 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382478 | |
| 2172955 | SM 2540 G (20th) | % Solid** | 84.8 | | % | P382584 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 11:09**

**Field ID: SB-35(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172936 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.75 | I | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 3.2 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.66 | I | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.23 | I | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 76 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.64 | | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 1.0 | I | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.22 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.43 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.22 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.21 | I | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382478 | |
| 2172956 | SM 2540 G (20th) | % Solid** | 94.3 | | % | P382584 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 11:10**

**Field ID: SB-35(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172937 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.91 | | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 4.4 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.84 | I | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 1.1 | | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 260 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.68 | | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.97 | I | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.21 | U | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 10 | | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.92 | | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382478 | |
| 2172957 | SM 2540 G (20th) | % Solid** | 92.6 | | % | P382584 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 11:12**

**Field ID: SB-35(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172938 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.20 | I | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.25 | U | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.4 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.51 | I | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 16 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.13 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.13 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.59 | I | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.25 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.30 | I | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.77 | I | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.25 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.13 | U | ug/Kg | P382478 | |
| 2172958 | SM 2540 G (20th) | % Solid** | 82.7 | | % | P382584 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 12:58**

**Field ID: SB-36(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172939 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.18 | I | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.3 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | I | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.43 | I | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.42 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.27 | I | ug/Kg | P382478 | |
| 2172959 | SM 2540 G (20th) | % Solid** | 94.9 | | % | P382584 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 13:00**

**Field ID: SB-36(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172940 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.25 | I | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 1.5 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.40 | I | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 7.4 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.10 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.41 | U | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.13 | I | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.41 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.10 | U | ug/Kg | P382478 | |
| 2172960 | SM 2540 G (20th) | % Solid** | 93.3 | A | % | P382585 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 13:02**

**Field ID: SB-36(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172941 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.36 | I | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 4.5 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.61 | I | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 5.1 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.18 | I | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.60 | I | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.23 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.25 | I | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.46 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.23 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.41 | I | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382478 | |
| 2172961 | SM 2540 G (20th) | % Solid** | 88.4 | | % | P382585 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 10:54**

**Field ID: SB-37(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172942 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.096 | U | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.1 | | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.26 | I | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.19 | U | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.096 | U | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.19 | U | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.69 | | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 17 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.24 | I | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.096 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.096 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.64 | | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.096 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.096 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.38 | U | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.19 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.096 | U | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.38 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.19 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.096 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.096 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.096 | U | ug/Kg | P382478 | |
| 2172962 | SM 2540 G (20th) | % Solid** | 95.1 | | % | P382585 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 10:57**

**Field ID: SB-37(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172943 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 2.9 | | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 3.0 | | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 32 | | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 5.7 | | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 4.4 | | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 2.4 | | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 6.6 | | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 3.8 | | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 30 | | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 1.7 | | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382558 | |
| 2172963 | SM 2540 G (20th) | % Solid** | 86.7 | A | % | P382653 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 10:59**

**Field ID: SB-37(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172944 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.29 | I | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 1.3 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.35 | I | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.18 | I | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 80 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.37 | I | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.45 | U | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.23 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 3.7 | | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.23 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.55 | | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382478 | |
| 2172964 | SM 2540 G (20th) | % Solid** | 89.3 | | % | P382585 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 09:12**

**Field ID: SB-38(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172945 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.51 | | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.28 | I | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.33 | I | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.23 | I | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.39 | I | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.36 | I | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 8.7 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.28 | I | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.18 | I | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.25 | I | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.95 | | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 1.3 | I | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.10 | U | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.41 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.10 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 1.2 | | ug/Kg | P382478 | |
| 2172965 | SM 2540 G (20th) | % Solid** | 95.1 | | % | P382585 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 09:14**

**Field ID: SB-38(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172946 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.31 | I | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.45 | | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.21 | U | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.18 | I | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 4.4 | | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.42 | U | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.56 | I | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382558 | |
| 2172966 | SM 2540 G (20th) | % Solid** | 92.6 | | % | P382653 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 09:16**

**Field ID: SB-38(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172947 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.32 | I | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 1.7 | | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.52 | I | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.38 | I | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.24 | I | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.10 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.61 | I | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.13 | I | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 3.9 | | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.10 | U | ug/Kg | P382558 | |
| 2172967 | SM 2540 G (20th) | % Solid** | 90.0 | | % | P382653 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 16:50**

**Field ID: SB-39(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172948 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 2.9 | | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 17 | | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 25 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 20 | | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.19 | I | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 4.0 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 2.9 | | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.13 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.13 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 24 | | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.26 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 3.3 | | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.52 | U | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.26 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.13 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.13 | U | ug/Kg | P382478 | |
| 2172968 | SM 2540 G (20th) | % Solid** | 80.8 | | % | P382585 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 16:51**

**Field ID: SB-39(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172949 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.19 | I | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.14 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.14 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.5 | | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 3.3 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.14 | U | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.82 | I | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.37 | I | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.14 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.14 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.14 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.14 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.14 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 2.4 | | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.29 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.43 | I | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 1.2 | I | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.29 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.14 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.14 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.14 | U | ug/Kg | P382478 | |
| 2172969 | SM 2540 G (20th) | % Solid** | 75.5 | | % | P382585 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 16:53**

**Field ID: SB-39(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172970 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 1.2 | I | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 1.4 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 1.5 | I | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 1.0 | I | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.23 | I | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.22 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.22 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 2.0 | I | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.45 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.22 | U | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 6.5 | | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.45 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.22 | U | ug/Kg | P382506 | |
| 2172990 | SM 2540 G (20th) | % Solid** | 56.1 | A | % | P382586 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 15:05**

**Field ID: SB-40(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172971 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.37 | I | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.15 | I | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.43 | I | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 1.9 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.16 | I | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | I | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 1.7 | I | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.45 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382506 | |
| 2172991 | SM 2540 G (20th) | % Solid** | 93.1 | | % | P382586 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 15:06**

**Field ID: SB-40(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172972 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.61 | I | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.69 | I | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.44 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382506 | |
| 2172992 | SM 2540 G (20th) | % Solid** | 93.0 | | % | P382586 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 15:09**

**Field ID: SB-40(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172973 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.47 | U | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.12 | U | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.47 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382506 | |
| 2172993 | SM 2540 G (20th) | % Solid** | 87.9 | | % | P382586 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 14:29**

**Field ID: SB-41(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172974 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.22 | I | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.38 | I | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 1.1 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.25 | I | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.27 | I | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 19 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.24 | I | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.25 | I | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.83 | I | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.44 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382506 | |
| 2172994 | SM 2540 G (20th) | % Solid** | 92.6 | | % | P382586 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 14:31**

**Field ID: SB-41(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172975 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 1.4 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.23 | I | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 43 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.14 | I | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.45 | U | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.45 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382506 | |
| 2172995 | SM 2540 G (20th) | % Solid** | 92.5 | | % | P382586 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 14:33**

**Field ID: SB-41(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172976 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.23 | U | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.84 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.23 | U | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 8.7 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.15 | I | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.47 | U | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.23 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.12 | U | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.70 | I | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.23 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.12 | I | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382506 | |
| 2172996 | SM 2540 G (20th) | % Solid** | 89.6 | | % | P382586 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 12:08**

**Field ID: SB-42(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172977 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.39 | I | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.3 | | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.34 | I | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.95 | | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.6 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.8 | | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.80 | | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 26 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.60 | | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.17 | I | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.94 | | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 7.2 | | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.38 | I | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.42 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382506 | |
| 2172997 | SM 2540 G (20th) | % Solid** | 94.7 | | % | P382586 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 12:10**

**Field ID: SB-42(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172978 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.28 | I | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.40 | I | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 1.3 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.92 | | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.49 | | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 19 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.18 | I | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 2.0 | | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.24 | I | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.42 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382506 | |
| 2172998 | SM 2540 G (20th) | % Solid** | 92.7 | | % | P382586 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 12:11**

**Field ID: SB-42(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172979 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.30 | I | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.81 | I | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.3 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 1.8 | | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.71 | | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 30 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.55 | | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 3.5 | | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.30 | I | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 12 | | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.27 | I | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382506 | |
| 2172999 | SM 2540 G (20th) | % Solid** | 88.4 | | % | P382586 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 11:17**

**Field ID: SB-43(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172980 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.37 | I | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.89 | | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.17 | I | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 1.1 | | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 3.1 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.89 | | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.73 | | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 14 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.43 | | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.10 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.13 | I | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.86 | | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 3.1 | | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.37 | I | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.42 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | I | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.10 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.10 | U | ug/Kg | P382506 | |
| 2173000 | SM 2540 G (20th) | % Solid** | 94.0 | A | % | P382587 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 11:19**

**Field ID: SB-43(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172981 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.61 | | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.80 | I | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.3 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.91 | | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 2.1 | | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 19 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.24 | I | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 2.3 | | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | I | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.43 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.15 | I | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382506 | |
| 2173001 | SM 2540 G (20th) | % Solid** | 92.1 | | % | P382587 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 11:21**

**Field ID: SB-43(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172982 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.34 | I | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.30 | I | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 1.3 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.64 | I | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 2.4 | | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 63 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.19 | I | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 1.9 | | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.17 | I | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.77 | I | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.33 | I | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382506 | |
| 2173002 | SM 2540 G (20th) | % Solid** | 86.3 | | % | P382587 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 10:45**

**Field ID: SB-44(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172983 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.45 | | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.29 | I | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.6 | | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 9.1 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 4.8 | | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.71 | | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 11 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 1.6 | | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.29 | I | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 14 | | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.56 | | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.44 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.19 | I | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.21 | I | ug/Kg | P382506 | |
| 2173003 | SM 2540 G (20th) | % Solid** | 91.3 | | % | P382587 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 10:53**

**Field ID: SB-44(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172984 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.20 | I | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 1.9 | | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 7.7 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.5 | | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.23 | U | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 1.5 | | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 2.8 | | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.23 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.34 | I | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 26 | | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.23 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.17 | I | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382506 | |
| 2173004 | SM 2540 G (20th) | % Solid** | 89.5 | | % | P382587 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 10:54**

**Field ID: SB-44(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172985 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.12 | I | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.90 | I | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 3.6 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 1.4 | | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.27 | I | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.85 | | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 1.9 | | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.23 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.18 | I | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 10 | | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.23 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382506 | |
| 2173005 | SM 2540 G (20th) | % Solid** | 89.5 | | % | P382587 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 09:58**

**Field ID: SB-45(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172986 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.14 | I | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 2.4 | | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.46 | I | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.4 | | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.0 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 3.2 | | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 100 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 2.3 | | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.16 | I | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.4 | | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 3.9 | | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.12 | U | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.48 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.48 | | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.19 | I | ug/Kg | P382506 | |
| 2173006 | SM 2540 G (20th) | % Solid** | 87.5 | | % | P382587 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 10:00**

**Field ID: SB-45(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172987 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.26 | I | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.52 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.33 | I | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 1.7 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.49 | I | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.23 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.45 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.23 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382506 | |
| 2173007 | SM 2540 G (20th) | % Solid** | 90.5 | | % | P382587 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 10:01**

**Field ID: SB-45(2-2.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172988 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.14 | I | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.79 | I | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.44 | U | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.44 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.22 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382506 | |
| 2173008 | SM 2540 G (20th) | % Solid** | 90.4 | | % | P382587 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 09:27**

**Field ID: SB-46(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2172989 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.54 | | ug/Kg | P382506 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.17 | I | ug/Kg | P382506 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.2 | | ug/Kg | P382506 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.7 | | ug/Kg | P382506 | |
| | | Perfluorohexanoic acid (PFHxA)** | 3.7 | | ug/Kg | P382506 | |
| | | Perfluorononanoic acid (PFNA)** | 0.98 | | ug/Kg | P382506 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 12 | | ug/Kg | P382506 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.70 | | ug/Kg | P382506 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.17 | I | ug/Kg | P382506 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.8 | | ug/Kg | P382506 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.66 | | ug/Kg | P382506 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.49 | U | ug/Kg | P382506 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.24 | U | ug/Kg | P382506 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382506 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382506 | |
| 2173009 | SM 2540 G (20th) | % Solid** | 86.8 | | % | P382587 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for 6:2 FTS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 09:29**

**Field ID: SB-46(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173010 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.27 | I | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.61 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.55 | I | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.14 | I | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 3.0 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.28 | I | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.67 | I | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.22 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 2.9 | | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.22 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382478 | |
| 2173037 | SM 2540 G (20th) | % Solid** | 87.0 | A | % | P382588 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 09:32**

**Field ID: SB-46(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173011 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.60 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.39 | I | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.29 | I | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.12 | I | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.56 | I | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 3.1 | | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382478 | |
| 2173038 | SM 2540 G (20th) | % Solid** | 87.6 | | % | P382588 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 10:24**

**Field ID: SB-47(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173012 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 16 | | ug/Kg | P382478 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.18 | I | ug/Kg | P382478 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 13 | | ug/Kg | P382478 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 160 | | ug/Kg | P382478 | |
| | | Perfluorohexanoic acid (PFHxA)** | 37 | | ug/Kg | P382478 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | | ug/Kg | P382478 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 21 | | ug/Kg | P382478 | |
| | | Perfluorooctanoic acid (PFOA)** | 9.5 | | ug/Kg | P382478 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.24 | I | ug/Kg | P382478 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382478 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluoropentanoic acid (PFPeA)** | 42 | | ug/Kg | P382478 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.24 | U | ug/Kg | P382478 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 17 | | ug/Kg | P382478 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 69 | | ug/Kg | P382478 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.24 | U | ug/Kg | P382478 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 8.0 | | ug/Kg | P382478 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382478 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382478 | |
| 2173039 | SM 2540 G (20th) | % Solid** | 88.4 | | % | P382588 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for PFHxS could not be assessed due to high concentration of parameter in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 10:26**

**Field ID: SB-47(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173013 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 3.8 | | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 3.6 | | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 34 | | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 7.2 | | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.13 | I | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 4.5 | | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 3.3 | | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 8.0 | | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.23 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 4.7 | | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 29 | | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.23 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 1.9 | | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382558 | |
| 2173040 | SM 2540 G (20th) | % Solid** | 86.5 | | % | P382653 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 10:28**

**Field ID: SB-47(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173014 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 2.0 | | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.5 | | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 27 | | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 4.4 | | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.63 | | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 46 | | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 3.7 | | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 5.0 | | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.23 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 2.5 | | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 47 | | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.23 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 4.2 | | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382558 | |
| 2173041 | SM 2540 G (20th) | % Solid** | 87.4 | | % | P382588 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 12:05**

**Field ID: SB-48(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173015 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 1.8 | | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.20 | I | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.096 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 1.0 | | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 8.9 | | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 1.7 | | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.35 | I | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 39 | | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.27 | I | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.096 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.096 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.26 | I | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.096 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.096 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 3.4 | | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.19 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 1.7 | | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.39 | U | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.19 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.13 | I | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.096 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.096 | U | ug/Kg | P382558 | |
| 2173042 | SM 2540 G (20th) | % Solid** | 95.3 | | % | P382588 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 12:06**

**Field ID: SB-48(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173016 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.33 | I | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.46 | I | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.4 | | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.68 | I | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.69 | | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 21 | | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.24 | I | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.10 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 1.3 | I | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.20 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.38 | I | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.40 | U | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.20 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.10 | U | ug/Kg | P382558 | |
| 2173043 | SM 2540 G (20th) | % Solid** | 93.3 | | % | P382588 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 12:08**

**Field ID: SB-48(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173017 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.24 | I | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.43 | I | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 1.7 | | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.61 | I | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.50 | | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 28 | | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.28 | I | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 1.0 | I | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.23 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.17 | I | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.85 | I | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.23 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382558 | |
| 2173044 | SM 2540 G (20th) | % Solid** | 86.4 | | % | P382588 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 14:22**

**Field ID: SB-49(0.0-0.5')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173018 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.33 | I | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.48 | | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.49 | I | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 1.8 | | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.15 | I | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.10 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 1.1 | I | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.21 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.10 | U | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.42 | U | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.21 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.10 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.10 | U | ug/Kg | P382558 | |
| 2173045 | SM 2540 G (20th) | % Solid** | 90.4 | | % | P382588 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 14:23**

**Field ID: SB-49(0.5-2')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173019 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.23 | U | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.23 | U | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.45 | I | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.11 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.46 | U | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.23 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.11 | U | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.46 | U | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.23 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.11 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.11 | U | ug/Kg | P382558 | |
| 2173046 | SM 2540 G (20th) | % Solid** | 86.5 | | % | P382588 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 14:25**

**Field ID: SB-49(2-3')** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173020 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.25 | U | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.15 | I | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.25 | U | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.25 | I | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.12 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.49 | U | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.25 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.12 | U | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.49 | U | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.25 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.12 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.12 | U | ug/Kg | P382558 | |
| 2173047 | SM 2540 G (20th) | % Solid** | 84.0 | | % | P382588 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 16:26**

**Field ID: SED 5** Matrix: SEDIMENT

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173021 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.47 | U | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.47 | U | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.79 | I | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.24 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.24 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.94 | U | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.47 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.24 | U | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.94 | U | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.47 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.24 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.24 | U | ug/Kg | P382558 | |
| 2173048 | SM 2540 G (20th) | % Solid** | 51.4 | A | % | P382589 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 11:49**

**Field ID: SED 6** Matrix: SEDIMENT

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173022 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 53 | | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.2 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.2 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 12 | | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 390 | | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 28 | | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 1.2 | U | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 93 | | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 11 | | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 1.2 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 1.2 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.2 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 1.2 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 1.2 | U | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 24 | | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.4 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 72 | | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 100 | | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.4 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 1.2 | U | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 1.2 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 20 | | ug/Kg | P382558 | |
| 2173049 | SM 2540 G (20th) | % Solid** | 12.2 | | % | P382589 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 09:56**

**Field ID: SED 7** Matrix: SEDIMENT

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173023 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.14 | U | ug/Kg | P382558 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.14 | U | ug/Kg | P382558 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.14 | U | ug/Kg | P382558 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.35 | I | ug/Kg | P382558 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.29 | I | ug/Kg | P382558 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.43 | I | ug/Kg | P382558 | |
| | | Perfluorononanoic acid (PFNA)** | 0.14 | U | ug/Kg | P382558 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 4.5 | | ug/Kg | P382558 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.25 | I | ug/Kg | P382558 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.14 | U | ug/Kg | P382558 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.14 | U | ug/Kg | P382558 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.14 | U | ug/Kg | P382558 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.14 | U | ug/Kg | P382558 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.14 | I | ug/Kg | P382558 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.57 | U | ug/Kg | P382558 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.28 | U | ug/Kg | P382558 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.14 | U | ug/Kg | P382558 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 5.3 | | ug/Kg | P382558 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 1.7 | | ug/Kg | P382558 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.14 | U | ug/Kg | P382558 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.14 | U | ug/Kg | P382558 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.14 | U | ug/Kg | P382558 | |
| 2173050 | SM 2540 G (20th) | % Solid** | 76.2 | | % | P382589 | |

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 16:24**

**Field ID: SW-2** Matrix: W-SURF-FRH

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173024 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 15 | | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 84 | | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 21 | | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 49 | | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 57 | | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 54 | | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 2.4 | I | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 85 | | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 12 | | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 12 | I | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 1.2 | I | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 11:42**

**Field ID: SW-3** Matrix: W-SURF-FRH

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173025 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 170 | | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 1.2E+03 | | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 1.1E+03 | | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 2.8 | I | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 640 | | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 3.8E+03 | | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 1.4E+03 | | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 16 | | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 1.7E+03 | | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 20 | | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 920 | | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 1.0E+03 | | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 36 | | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 09:50**

**Field ID: SW-4** Matrix: W-SURF-FRH

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173026 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 46 | | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 300 | | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 9.7 | | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 9.0 | | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.3 | I | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 73 | | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 72 | | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 130 | | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 17 | | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 190 | | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 10 | | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 640 | | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 140 | | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 3.0 | | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 17:05**

**Field ID: DUP 4 (SW-2-DUP)** Matrix: W-SURF-FRH

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173027 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 13 | | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 85 | | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 19 | | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | I | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 49 | | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 54 | | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 60 | | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 2.2 | I | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 81 | | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 11 | | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 9.8 | I | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 1.1 | I | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 12:29**

**Field ID: EQB-13** Matrix: W-EQPMT-BK

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173030 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 10:23**

**Field ID: EQB-14** Matrix: W-EQPMT-BK

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173031 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 12:33**

**Field ID: EQB-15** Matrix: W-EQPMT-BK

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173032 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/19/2020 17:20**

**Field ID: EQB-16** Matrix: W-EQPMT-BK

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173033 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 14:49**

**Field ID: EQB-17** Matrix: W-EQPMT-BK

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173034 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/18/2020 17:40**

**Field ID: EQB-11** Matrix: W-EQPMT-BK

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173035 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 14:25**

**Field ID: EQB-12** Matrix: W-EQPMT-BK

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173036 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 16:58**

**Field ID: FRB-5** Matrix: W-FRB

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173028 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/20/2020 16:59**

**Field ID: FRB-6** Matrix: W-FRB

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173029 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382590 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382590 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382590 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382590 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382590 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382590 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382590 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382590 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382590 | |

Ref. Method and Comment:
EPA 8321B: Insufficient sample to perform matrix spikes.

# Non-Conformance Report

**NCR ID: 8290**

| Event(s) | Job(s) | Sample(s) | Test(s) |
|---|---|---|---|
| SIS-2020-05-21-02 | TLH-2020-05-21-60 | 2172943 | |
| SIS-2020-05-21-02 | TLH-2020-05-21-63 | 2173013 | |

**NCR Type: SHIPPING/RECEIVING** **NCR Category: Receiving**

Observation: Site information on COC and containers do not match for Field IDs: SB-38 (0.5-2) collection time 10:57 / SB-37 (5-2) collection time 10:26.

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Resolution: Customer was notified; their email indicates that the COC was accurate and that only the Field ID on the containers were incorrect. Sample containers were labeled by matching the collection times on both the COC and sample containers. Email correspondence attached to sample submittal forms.

Authorized by/Date: Joshua Ayres 6/4/2020

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

| | | |
|---|---|---|
| Chemistry | Colin Wright | (850) 245-8085 |
| Biology | Cheryl Swanson | (850) 245-8177 |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8321B**
**Batch ID: P382478**

| Component | Result | Code | Units |
|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 0.19 | U | ug/Kg |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 0.39 | U | ug/Kg |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 0.19 | U | ug/Kg |
| N-Et perfluorooctanesulfonamidoAc acid | 0.097 | U | ug/Kg |
| N-Me perfluorooctanesulfonamidoAc acid | 0.097 | U | ug/Kg |
| Perfluorobutanesulfonic acid (PFBS) | 0.097 | U | ug/Kg |
| Perfluorodecanesulfonic acid (PFDS) | 0.097 | U | ug/Kg |
| Perfluorodecanoic acid (PFDA) | 0.097 | U | ug/Kg |
| Perfluorododecanoic acid (PFDoA) | 0.097 | U | ug/Kg |
| Perfluoroheptanesulfonic acid (PFHpS) | 0.097 | U | ug/Kg |
| Perfluoroheptanoic acid (PFHpA) | 0.19 | U | ug/Kg |
| Perfluorohexanesulfonic acid (PFHxS) | 0.097 | U | ug/Kg |
| Perfluorohexanoic acid (PFHxA) | 0.19 | U | ug/Kg |
| Perfluorononanesulfonic acid (PFNS) | 0.097 | U | ug/Kg |
| Perfluorononanoic acid (PFNA) | 0.097 | U | ug/Kg |
| Perfluorooctanesulfonic acid (PFOS) | 0.19 | U | ug/Kg |
| Perfluorooctanoic acid (PFOA) | 0.097 | U | ug/Kg |
| Perfluoropentanesulfonic acid (PFPeS) | 0.097 | U | ug/Kg |
| Perfluoropentanoic acid (PFPeA) | 0.39 | U | ug/Kg |
| Perfluorotetradecanoic acid (PFTeA) | 0.097 | U | ug/Kg |
| Perfluorotridecanoic acid (PFTriA) | 0.097 | U | ug/Kg |
| Perfluoroundecanoic acid (PFUnA) | 0.097 | U | ug/Kg |

**Reference Method: EPA 8321B**
**Batch ID: P382506**

| Component | Result | Code | Units |
|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 0.19 | U | ug/Kg |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 0.39 | U | ug/Kg |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 0.19 | U | ug/Kg |
| N-Et perfluorooctanesulfonamidoAc acid | 0.096 | U | ug/Kg |
| N-Me perfluorooctanesulfonamidoAc acid | 0.096 | U | ug/Kg |
| Perfluorobutanesulfonic acid (PFBS) | 0.096 | U | ug/Kg |
| Perfluorodecanesulfonic acid (PFDS) | 0.096 | U | ug/Kg |
| Perfluorodecanoic acid (PFDA) | 0.096 | U | ug/Kg |
| Perfluorododecanoic acid (PFDoA) | 0.096 | U | ug/Kg |
| Perfluoroheptanesulfonic acid (PFHpS) | 0.096 | U | ug/Kg |
| Perfluoroheptanoic acid (PFHpA) | 0.19 | U | ug/Kg |
| Perfluorohexanesulfonic acid (PFHxS) | 0.096 | U | ug/Kg |
| Perfluorohexanoic acid (PFHxA) | 0.19 | U | ug/Kg |
| Perfluorononanesulfonic acid (PFNS) | 0.096 | U | ug/Kg |
| Perfluorononanoic acid (PFNA) | 0.096 | U | ug/Kg |
| Perfluorooctanesulfonic acid (PFOS) | 0.19 | U | ug/Kg |
| Perfluorooctanoic acid (PFOA) | 0.096 | U | ug/Kg |
| Perfluoropentanesulfonic acid (PFPeS) | 0.096 | U | ug/Kg |
| Perfluoropentanoic acid (PFPeA) | 0.39 | U | ug/Kg |
| Perfluorotetradecanoic acid (PFTeA) | 0.096 | U | ug/Kg |
| Perfluorotridecanoic acid (PFTriA) | 0.096 | U | ug/Kg |
| Perfluoroundecanoic acid (PFUnA) | 0.096 | U | ug/Kg |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8321B**
**Batch ID: P382558**

| Component | Result | Code | Units |
|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 0.18 | U | ug/Kg |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 0.36 | U | ug/Kg |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 0.18 | U | ug/Kg |
| N-Et perfluorooctanesulfonamidoAc acid | 0.091 | U | ug/Kg |
| N-Me perfluorooctanesulfonamidoAc acid | 0.091 | U | ug/Kg |
| Perfluorobutanesulfonic acid (PFBS) | 0.091 | U | ug/Kg |
| Perfluorodecanesulfonic acid (PFDS) | 0.091 | U | ug/Kg |
| Perfluorodecanoic acid (PFDA) | 0.091 | U | ug/Kg |
| Perfluorododecanoic acid (PFDoA) | 0.091 | U | ug/Kg |
| Perfluoroheptanesulfonic acid (PFHpS) | 0.091 | U | ug/Kg |
| Perfluoroheptanoic acid (PFHpA) | 0.18 | U | ug/Kg |
| Perfluorohexanesulfonic acid (PFHxS) | 0.091 | U | ug/Kg |
| Perfluorohexanoic acid (PFHxA) | 0.18 | U | ug/Kg |
| Perfluorononanesulfonic acid (PFNS) | 0.091 | U | ug/Kg |
| Perfluorononanoic acid (PFNA) | 0.091 | U | ug/Kg |
| Perfluorooctanesulfonic acid (PFOS) | 0.18 | U | ug/Kg |
| Perfluorooctanoic acid (PFOA) | 0.091 | U | ug/Kg |
| Perfluoropentanesulfonic acid (PFPeS) | 0.091 | U | ug/Kg |
| Perfluoropentanoic acid (PFPeA) | 0.36 | U | ug/Kg |
| Perfluorotetradecanoic acid (PFTeA) | 0.091 | U | ug/Kg |
| Perfluorotridecanoic acid (PFTriA) | 0.091 | U | ug/Kg |
| Perfluoroundecanoic acid (PFUnA) | 0.091 | U | ug/Kg |

**Reference Method: EPA 8321B**
**Batch ID: P382590**

| Component | Result | Code | Units |
|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 2.0 | U | ng/L |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 4.0 | U | ng/L |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 2.0 | U | ng/L |
| N-Et perfluorooctanesulfonamidoAc acid | 0.40 | U | ng/L |
| N-Me perfluorooctanesulfonamidoAc acid | 0.40 | U | ng/L |
| Perfluorobutanesulfonic acid (PFBS) | 0.40 | U | ng/L |
| Perfluorodecanesulfonic acid (PFDS) | 0.40 | U | ng/L |
| Perfluorodecanoic acid (PFDA) | 1.0 | U | ng/L |
| Perfluorododecanoic acid (PFDoA) | 1.0 | U | ng/L |
| Perfluoroheptanesulfonic acid (PFHpS) | 0.40 | U | ng/L |
| Perfluoroheptanoic acid (PFHpA) | 2.0 | U | ng/L |
| Perfluorohexanesulfonic acid (PFHxS) | 0.40 | U | ng/L |
| Perfluorohexanoic acid (PFHxA) | 2.0 | U | ng/L |
| Perfluorononanesulfonic acid (PFNS) | 0.40 | U | ng/L |
| Perfluorononanoic acid (PFNA) | 1.0 | U | ng/L |
| Perfluorooctanesulfonic acid (PFOS) | 2.0 | U | ng/L |
| Perfluorooctanoic acid (PFOA) | 1.0 | U | ng/L |
| Perfluoropentanesulfonic acid (PFPeS) | 0.40 | U | ng/L |
| Perfluoropentanoic acid (PFPeA) | 4.0 | U | ng/L |
| Perfluorotetradecanoic acid (PFTeA) | 0.40 | U | ng/L |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | ng/L |
| Perfluoroundecanoic acid (PFUnA) | 1.0 | U | ng/L |

# Quality Assurance Report
# Laboratory Control Sample Accuracy

**Reference Method: EPA 8321B**
**Batch ID: P382478**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 146 | | P | 40 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 99.8 | | P | 40 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 77.2 | | P | 40 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 120 | | P | 40 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 118 | | P | 40 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 123 | | P | 40 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 140 | | P | 40 - 160 |
| Perfluorodecanoic acid (PFDA) | 132 | | P | 40 - 160 |
| Perfluorododecanoic acid (PFDoA) | 109 | | P | 40 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 124 | | P | 40 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 108 | | P | 40 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 131 | | P | 40 - 160 |
| Perfluorohexanoic acid (PFHxA) | 118 | | P | 40 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 120 | | P | 40 - 160 |
| Perfluorononanoic acid (PFNA) | 116 | | P | 40 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 129 | | P | 40 - 160 |
| Perfluorooctanoic acid (PFOA) | 100 | | P | 40 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 144 | | P | 40 - 160 |
| Perfluoropentanoic acid (PFPeA) | 96.4 | | P | 40 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 129 | | P | 40 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 121 | | P | 40 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 106 | | P | 40 - 160 |

**Reference Method: EPA 8321B**
**Batch ID: P382506**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 57.0 | | P | 40 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 64.9 | | P | 40 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 60.2 | | P | 40 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 76.9 | | P | 40 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 76.4 | | P | 40 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 77.6 | | P | 40 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 87.9 | | P | 40 - 160 |
| Perfluorodecanoic acid (PFDA) | 89.1 | | P | 40 - 160 |
| Perfluorododecanoic acid (PFDoA) | 114 | | P | 40 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 83.6 | | P | 40 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 93.3 | | P | 40 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 84.2 | | P | 40 - 160 |
| Perfluorohexanoic acid (PFHxA) | 86.9 | | P | 40 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 87.1 | | P | 40 - 160 |
| Perfluorononanoic acid (PFNA) | 96.1 | | P | 40 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 78.8 | | P | 40 - 160 |
| Perfluorooctanoic acid (PFOA) | 94.8 | | P | 40 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 75.8 | | P | 40 - 160 |
| Perfluoropentanoic acid (PFPeA) | 83.7 | | P | 40 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 90.5 | | P | 40 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 105 | | P | 40 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 105 | | P | 40 - 160 |

# Quality Assurance Report
# Laboratory Control Sample Accuracy

**Reference Method: EPA 8321B**
**Batch ID: P382558**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 87.3 | | P | 40 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 98.0 | | P | 40 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 81.1 | | P | 40 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 123 | | P | 40 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 107 | | P | 40 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 130 | | P | 40 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 136 | | P | 40 - 160 |
| Perfluorodecanoic acid (PFDA) | 110 | | P | 40 - 160 |
| Perfluorododecanoic acid (PFDoA) | 127 | | P | 40 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 128 | | P | 40 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 147 | | P | 40 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 132 | | P | 40 - 160 |
| Perfluorohexanoic acid (PFHxA) | 108 | | P | 40 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 125 | | P | 40 - 160 |
| Perfluorononanoic acid (PFNA) | 117 | | P | 40 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 124 | | P | 40 - 160 |
| Perfluorooctanoic acid (PFOA) | 98.1 | | P | 40 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 141 | | P | 40 - 160 |
| Perfluoropentanoic acid (PFPeA) | 91.2 | | P | 40 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 149 | | P | 40 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 106 | | P | 40 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 105 | | P | 40 - 160 |

**Reference Method: EPA 8321B**
**Batch ID: P382590**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 87.5 | 96.3 | P/P | 30 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 124 | 143 | P/P | 30 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 93.4 | 104 | P/P | 30 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 111 | 114 | P/P | 30 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 113 | 114 | P/P | 30 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 114 | 122 | P/P | 30 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 107 | 116 | P/P | 30 - 160 |
| Perfluorodecanoic acid (PFDA) | 96.6 | 109 | P/P | 30 - 160 |
| Perfluorododecanoic acid (PFDoA) | 94.6 | 98.3 | P/P | 30 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 115 | 110 | P/P | 30 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 111 | 121 | P/P | 30 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 117 | 119 | P/P | 30 - 160 |
| Perfluorohexanoic acid (PFHxA) | 84.9 | 105 | P/P | 30 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 107 | 113 | P/P | 30 - 160 |
| Perfluorononanoic acid (PFNA) | 92.5 | 108 | P/P | 30 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 107 | 114 | P/P | 30 - 160 |
| Perfluorooctanoic acid (PFOA) | 107 | 99.2 | P/P | 30 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 126 | 132 | P/P | 30 - 160 |
| Perfluoropentanoic acid (PFPeA) | 75.7 | 90.7 | P/P | 30 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 80.0 | 74.2 | P/P | 30 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 66.3 | 74.1 | P/P | 30 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 101 | 104 | P/P | 30 - 160 |

# Quality Assurance Report
# Matrix Spike Accuracy

**Reference Method: EPA 8321B**
**Batch ID: P382478**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2172931 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 79.9 | 94.1 | P/P | 40 - 160 |
| 2172931 | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 110 | 123 | P/P | 40 - 160 |
| 2172931 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 92.1 | 96.5 | P/P | 40 - 160 |
| 2172931 | N-Et perfluorooctanesulfonamidoAc acid | 122 | 140 | P/P | 40 - 160 |
| 2172931 | N-Me perfluorooctanesulfonamidoAc acid | 123 | 132 | P/P | 40 - 160 |
| 2172931 | Perfluorobutanesulfonic acid (PFBS) | 133 | 151 | P/P | 40 - 160 |
| 2172931 | Perfluorodecanesulfonic acid (PFDS) | 130 | 148 | P/P | 40 - 160 |
| 2172931 | Perfluorodecanoic acid (PFDA) | 134 | 157 | P/P | 40 - 160 |
| 2172931 | Perfluorododecanoic acid (PFDoA) | 124 | 148 | P/P | 40 - 160 |
| 2172931 | Perfluoroheptanesulfonic acid (PFHpS) | 135 | 150 | P/P | 40 - 160 |
| 2172931 | Perfluoroheptanoic acid (PFHpA) | 128 | 135 | P/P | 40 - 160 |
| 2172931 | Perfluorohexanoic acid (PFHxA) | 138 | 136 | P/P | 40 - 160 |
| 2172931 | Perfluorononanesulfonic acid (PFNS) | 122 | 144 | P/P | 40 - 160 |
| 2172931 | Perfluorononanoic acid (PFNA) | 151 | 133 | P/P | 40 - 160 |
| 2172931 | Perfluorooctanesulfonic acid (PFOS) | 122 | 142 | P/P | 40 - 160 |
| 2172931 | Perfluorooctanoic acid (PFOA) | 118 | 110 | P/P | 40 - 160 |
| 2172931 | Perfluoropentanesulfonic acid (PFPeS) | 104 | 120 | P/P | 40 - 160 |
| 2172931 | Perfluoropentanoic acid (PFPeA) | 146 | 155 | P/P | 40 - 160 |
| 2172931 | Perfluorotetradecanoic acid (PFTeA) | 144 | 140 | P/P | 40 - 160 |
| 2172931 | Perfluorotridecanoic acid (PFTriA) | 125 | 135 | P/P | 40 - 160 |
| 2172931 | Perfluoroundecanoic acid (PFUnA) | 121 | 132 | P/P | 40 - 160 |

**Reference Method: EPA 8321B**
**Batch ID: P382506**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2172970 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 66.5 | 64.6 | P/P | 40 - 160 |
| 2172970 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 84.8 | 82.2 | P/P | 40 - 160 |
| 2172970 | N-Et perfluorooctanesulfonamidoAc acid | 92.4 | 90.6 | P/P | 40 - 160 |
| 2172970 | N-Me perfluorooctanesulfonamidoAc acid | 102 | 92.4 | P/P | 40 - 160 |
| 2172970 | Perfluorobutanesulfonic acid (PFBS) | 75.0 | 73.5 | P/P | 40 - 160 |
| 2172970 | Perfluorodecanesulfonic acid (PFDS) | 81.9 | 79.6 | P/P | 40 - 160 |
| 2172970 | Perfluorodecanoic acid (PFDA) | 85.9 | 82.1 | P/P | 40 - 160 |
| 2172970 | Perfluorododecanoic acid (PFDoA) | 108 | 120 | P/P | 40 - 160 |
| 2172970 | Perfluoroheptanesulfonic acid (PFHpS) | 78.5 | 76.5 | P/P | 40 - 160 |
| 2172970 | Perfluoroheptanoic acid (PFHpA) | 77.3 | 75.1 | P/P | 40 - 160 |
| 2172970 | Perfluorohexanesulfonic acid (PFHxS) | 89.4 | 76.3 | P/P | 40 - 160 |
| 2172970 | Perfluorohexanoic acid (PFHxA) | 79.4 | 77.2 | P/P | 40 - 160 |
| 2172970 | Perfluorononanesulfonic acid (PFNS) | 83.1 | 78.9 | P/P | 40 - 160 |
| 2172970 | Perfluorononanoic acid (PFNA) | 83.7 | 88.5 | P/P | 40 - 160 |
| 2172970 | Perfluorooctanesulfonic acid (PFOS) | 77.9 | 71.4 | P/P | 40 - 160 |
| 2172970 | Perfluorooctanoic acid (PFOA) | 81.9 | 90.6 | P/P | 40 - 160 |
| 2172970 | Perfluoropentanesulfonic acid (PFPeS) | 76.8 | 73.0 | P/P | 40 - 160 |
| 2172970 | Perfluoropentanoic acid (PFPeA) | 77.3 | 86.5 | P/P | 40 - 160 |
| 2172970 | Perfluorotetradecanoic acid (PFTeA) | 100 | 92.6 | P/P | 40 - 160 |
| 2172970 | Perfluorotridecanoic acid (PFTriA) | 108 | 114 | P/P | 40 - 160 |
| 2172970 | Perfluoroundecanoic acid (PFUnA) | 88.8 | 97.2 | P/P | 40 - 160 |

**Reference Method: EPA 8321B**
**Batch ID: P382558**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|

# Quality Assurance Report
# Matrix Spike Accuracy

**Reference Method: EPA 8321B**
**Batch ID: P382558**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173014 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 105 | 109 | P/P | 40 - 160 |
| 2173014 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 88.3 | 98.3 | P/P | 40 - 160 |
| 2173014 | N-Et perfluorooctanesulfonamidoAc acid | 139 | 144 | P/P | 40 - 160 |
| 2173014 | N-Me perfluorooctanesulfonamidoAc acid | 110 | 117 | P/P | 40 - 160 |
| 2173014 | Perfluorodecanesulfonic acid (PFDS) | 138 | 151 | P/P | 40 - 160 |
| 2173014 | Perfluorodecanoic acid (PFDA) | 125 | 130 | P/P | 40 - 160 |
| 2173014 | Perfluorododecanoic acid (PFDoA) | 128 | 129 | P/P | 40 - 160 |
| 2173014 | Perfluorononanesulfonic acid (PFNS) | 134 | 143 | P/P | 40 - 160 |
| 2173014 | Perfluorononanoic acid (PFNA) | 151 | 147 | P/P | 40 - 160 |
| 2173014 | Perfluorotetradecanoic acid (PFTeA) | 108 | 129 | P/P | 40 - 160 |
| 2173014 | Perfluorotridecanoic acid (PFTriA) | 113 | 116 | P/P | 40 - 160 |
| 2173014 | Perfluoroundecanoic acid (PFUnA) | 104 | 128 | P/P | 40 - 160 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 8321B**
**Batch ID: P382478**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2172931 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 16.3 | Spike | P | 0 - 35 |
| 2172931 | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 10.9 | Spike | P | 0 - 35 |
| 2172931 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 4.57 | Spike | P | 0 - 35 |
| 2172931 | N-Et perfluorooctanesulfonamidoAc acid | 13.4 | Spike | P | 0 - 35 |
| 2172931 | N-Me perfluorooctanesulfonamidoAc acid | 6.44 | Spike | P | 0 - 35 |
| 2172931 | Perfluorobutanesulfonic acid (PFBS) | 12.6 | Spike | P | 0 - 35 |
| 2172931 | Perfluorodecanesulfonic acid (PFDS) | 12.5 | Spike | P | 0 - 35 |
| 2172931 | Perfluorodecanoic acid (PFDA) | 15.6 | Spike | P | 0 - 35 |
| 2172931 | Perfluorododecanoic acid (PFDoA) | 17.5 | Spike | P | 0 - 35 |
| 2172931 | Perfluoroheptanesulfonic acid (PFHpS) | 10.5 | Spike | P | 0 - 35 |
| 2172931 | Perfluoroheptanoic acid (PFHpA) | 4.91 | Spike | P | 0 - 35 |
| 2172931 | Perfluorohexanesulfonic acid (PFHxS) | 10.1 | Spike | P | 0 - 35 |
| 2172931 | Perfluorohexanoic acid (PFHxA) | 1.53 | Spike | P | 0 - 35 |
| 2172931 | Perfluorononanesulfonic acid (PFNS) | 16.2 | Spike | P | 0 - 35 |
| 2172931 | Perfluorononanoic acid (PFNA) | 12.7 | Spike | P | 0 - 35 |
| 2172931 | Perfluorooctanesulfonic acid (PFOS) | 15.4 | Spike | P | 0 - 35 |
| 2172931 | Perfluorooctanoic acid (PFOA) | 7.29 | Spike | P | 0 - 35 |
| 2172931 | Perfluoropentanesulfonic acid (PFPeS) | 13.1 | Spike | P | 0 - 35 |
| 2172931 | Perfluoropentanoic acid (PFPeA) | 6.09 | Spike | P | 0 - 35 |
| 2172931 | Perfluorotetradecanoic acid (PFTeA) | 3.39 | Spike | P | 0 - 35 |
| 2172931 | Perfluorotridecanoic acid (PFTriA) | 7.89 | Spike | P | 0 - 35 |
| 2172931 | Perfluoroundecanoic acid (PFUnA) | 9.01 | Spike | P | 0 - 35 |

**Reference Method: EPA 8321B**
**Batch ID: P382506**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2172970 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 2.90 | Spike | P | 0 - 35 |
| 2172970 | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 2.28 | Spike | P | 0 - 35 |
| 2172970 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 3.10 | Spike | P | 0 - 35 |
| 2172970 | N-Et perfluorooctanesulfonamidoAc acid | 1.95 | Spike | P | 0 - 35 |
| 2172970 | N-Me perfluorooctanesulfonamidoAc acid | 10.4 | Spike | P | 0 - 35 |
| 2172970 | Perfluorobutanesulfonic acid (PFBS) | 2.05 | Spike | P | 0 - 35 |
| 2172970 | Perfluorodecanesulfonic acid (PFDS) | 2.87 | Spike | P | 0 - 35 |
| 2172970 | Perfluorodecanoic acid (PFDA) | 4.53 | Spike | P | 0 - 35 |
| 2172970 | Perfluorododecanoic acid (PFDoA) | 11.1 | Spike | P | 0 - 35 |
| 2172970 | Perfluoroheptanesulfonic acid (PFHpS) | 2.59 | Spike | P | 0 - 35 |
| 2172970 | Perfluoroheptanoic acid (PFHpA) | 2.08 | Spike | P | 0 - 35 |
| 2172970 | Perfluorohexanesulfonic acid (PFHxS) | 10.9 | Spike | P | 0 - 35 |
| 2172970 | Perfluorohexanoic acid (PFHxA) | 2.05 | Spike | P | 0 - 35 |
| 2172970 | Perfluorononanesulfonic acid (PFNS) | 5.18 | Spike | P | 0 - 35 |
| 2172970 | Perfluorononanoic acid (PFNA) | 5.64 | Spike | P | 0 - 35 |
| 2172970 | Perfluorooctanesulfonic acid (PFOS) | 6.36 | Spike | P | 0 - 35 |
| 2172970 | Perfluorooctanoic acid (PFOA) | 9.31 | Spike | P | 0 - 35 |
| 2172970 | Perfluoropentanesulfonic acid (PFPeS) | 5.10 | Spike | P | 0 - 35 |
| 2172970 | Perfluoropentanoic acid (PFPeA) | 6.43 | Spike | P | 0 - 35 |
| 2172970 | Perfluorotetradecanoic acid (PFTeA) | 7.91 | Spike | P | 0 - 35 |
| 2172970 | Perfluorotridecanoic acid (PFTriA) | 5.11 | Spike | P | 0 - 35 |
| 2172970 | Perfluoroundecanoic acid (PFUnA) | 8.99 | Spike | P | 0 - 35 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 8321B**
**Batch ID: P382558**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173014 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 4.24 | Spike | P | 0 - 35 |
| 2173014 | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 9.18 | Spike | P | 0 - 35 |
| 2173014 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 10.7 | Spike | P | 0 - 35 |
| 2173014 | N-Et perfluorooctanesulfonamidoAc acid | 3.90 | Spike | P | 0 - 35 |
| 2173014 | N-Me perfluorooctanesulfonamidoAc acid | 6.03 | Spike | P | 0 - 35 |
| 2173014 | Perfluorobutanesulfonic acid (PFBS) | 3.01 | Spike | P | 0 - 35 |
| 2173014 | Perfluorodecanesulfonic acid (PFDS) | 9.53 | Spike | P | 0 - 35 |
| 2173014 | Perfluorodecanoic acid (PFDA) | 3.21 | Spike | P | 0 - 35 |
| 2173014 | Perfluorododecanoic acid (PFDoA) | 0.0793 | Spike | P | 0 - 35 |
| 2173014 | Perfluoroheptanesulfonic acid (PFHpS) | 2.74 | Spike | P | 0 - 35 |
| 2173014 | Perfluoroheptanoic acid (PFHpA) | 14.6 | Spike | P | 0 - 35 |
| 2173014 | Perfluorohexanesulfonic acid (PFHxS) | 4.32 | Spike | P | 0 - 35 |
| 2173014 | Perfluorohexanoic acid (PFHxA) | 9.59 | Spike | P | 0 - 35 |
| 2173014 | Perfluorononanesulfonic acid (PFNS) | 5.99 | Spike | P | 0 - 35 |
| 2173014 | Perfluorononanoic acid (PFNA) | 2.24 | Spike | P | 0 - 35 |
| 2173014 | Perfluorooctanesulfonic acid (PFOS) | 14.7 | Spike | P | 0 - 35 |
| 2173014 | Perfluorooctanoic acid (PFOA) | 8.37 | Spike | P | 0 - 35 |
| 2173014 | Perfluoropentanesulfonic acid (PFPeS) | 5.54 | Spike | P | 0 - 35 |
| 2173014 | Perfluoropentanoic acid (PFPeA) | 5.49 | Spike | P | 0 - 35 |
| 2173014 | Perfluorotetradecanoic acid (PFTeA) | 17.8 | Spike | P | 0 - 35 |
| 2173014 | Perfluorotridecanoic acid (PFTriA) | 2.81 | Spike | P | 0 - 35 |
| 2173014 | Perfluoroundecanoic acid (PFUnA) | 20.8 | Spike | P | 0 - 35 |

**Reference Method: EPA 8321B**
**Batch ID: P382590**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| LFB | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 9.65 | LCS | P | 0 - 30 |
| LFB | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 13.6 | LCS | P | 0 - 30 |
| LFB | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 10.3 | LCS | P | 0 - 30 |
| LFB | N-Et perfluorooctanesulfonamidoAc acid | 2.93 | LCS | P | 0 - 30 |
| LFB | N-Me perfluorooctanesulfonamidoAc acid | 0.783 | LCS | P | 0 - 30 |
| LFB | Perfluorobutanesulfonic acid (PFBS) | 6.36 | LCS | P | 0 - 30 |
| LFB | Perfluorodecanesulfonic acid (PFDS) | 8.03 | LCS | P | 0 - 30 |
| LFB | Perfluorodecanoic acid (PFDA) | 12.3 | LCS | P | 0 - 30 |
| LFB | Perfluorododecanoic acid (PFDoA) | 3.83 | LCS | P | 0 - 30 |
| LFB | Perfluoroheptanesulfonic acid (PFHpS) | 4.14 | LCS | P | 0 - 30 |
| LFB | Perfluoroheptanoic acid (PFHpA) | 8.07 | LCS | P | 0 - 30 |
| LFB | Perfluorohexanesulfonic acid (PFHxS) | 1.69 | LCS | P | 0 - 30 |
| LFB | Perfluorohexanoic acid (PFHxA) | 21.0 | LCS | P | 0 - 30 |
| LFB | Perfluorononanesulfonic acid (PFNS) | 5.04 | LCS | P | 0 - 30 |
| LFB | Perfluorononanoic acid (PFNA) | 15.3 | LCS | P | 0 - 30 |
| LFB | Perfluorooctanesulfonic acid (PFOS) | 6.40 | LCS | P | 0 - 30 |
| LFB | Perfluorooctanoic acid (PFOA) | 7.62 | LCS | P | 0 - 30 |
| LFB | Perfluoropentanesulfonic acid (PFPeS) | 5.19 | LCS | P | 0 - 30 |
| LFB | Perfluoropentanoic acid (PFPeA) | 18.0 | LCS | P | 0 - 30 |
| LFB | Perfluorotetradecanoic acid (PFTeA) | 7.48 | LCS | P | 0 - 30 |
| LFB | Perfluorotridecanoic acid (PFTriA) | 11.1 | LCS | P | 0 - 30 |
| LFB | Perfluoroundecanoic acid (PFUnA) | 3.48 | LCS | P | 0 - 30 |

# Quality Assurance Report
# Precision

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2172930**
**Field Sample ID: SB-33(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 122 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 99.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 124 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 111 | P | 30 - 160 |

**Lab Sample ID: 2172931**
**Field Sample ID: SB-33(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 111 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 99.1 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 110 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 114 | P | 30 - 160 |

**Lab Sample ID: 2172932**
**Field Sample ID: SB-33(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 105 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 83.1 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 113 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 88.5 | P | 30 - 160 |

**Lab Sample ID: 2172933**
**Field Sample ID: SB-34(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 156 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 146 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 130 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 139 | P | 30 - 160 |

**Lab Sample ID: 2172934**
**Field Sample ID: SB-34(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 147 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 114 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 146 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 124 | P | 30 - 160 |

**Lab Sample ID: 2172935**
**Field Sample ID: SB-34(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 113 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 112 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 117 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 112 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2172936**
**Field Sample ID: SB-35(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 94.7 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 76.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 97.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 74.8 | P | 30 - 160 |

**Lab Sample ID: 2172937**
**Field Sample ID: SB-35(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 131 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 118 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 140 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 122 | P | 30 - 160 |

**Lab Sample ID: 2172938**
**Field Sample ID: SB-35(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 146 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 113 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 139 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 108 | P | 30 - 160 |

**Lab Sample ID: 2172939**
**Field Sample ID: SB-36(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 150 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 134 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 139 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 129 | P | 30 - 160 |

**Lab Sample ID: 2172940**
**Field Sample ID: SB-36(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 150 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 132 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 151 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 136 | P | 30 - 160 |

**Lab Sample ID: 2172941**
**Field Sample ID: SB-36(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 120 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 90.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 117 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 105 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2172942**
**Field Sample ID: SB-37(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 140 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 121 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 143 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 125 | P | 30 - 160 |

**Lab Sample ID: 2172943**
**Field Sample ID: SB-37(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 115 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 95.1 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 123 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 104 | P | 30 - 160 |

**Lab Sample ID: 2172944**
**Field Sample ID: SB-37(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 110 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 106 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 117 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 93.9 | P | 30 - 160 |

**Lab Sample ID: 2172945**
**Field Sample ID: SB-38(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 130 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 126 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 140 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 125 | P | 30 - 160 |

**Lab Sample ID: 2172946**
**Field Sample ID: SB-38(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 130 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 115 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 133 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 125 | P | 30 - 160 |

**Lab Sample ID: 2172947**
**Field Sample ID: SB-38(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 115 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 113 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 118 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 127 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2172948**
**Field Sample ID: SB-39(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 92.2 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 83.1 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 99.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 91.2 | P | 30 - 160 |

**Lab Sample ID: 2172949**
**Field Sample ID: SB-39(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 73.0 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 51.7 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 73.9 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 60.1 | P | 30 - 160 |

**Lab Sample ID: 2172970**
**Field Sample ID: SB-39(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 58.2 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 83.1 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 62.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 79.6 | P | 30 - 160 |

**Lab Sample ID: 2172971**
**Field Sample ID: SB-40(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 62.4 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 102 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 65.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 72.7 | P | 30 - 160 |

**Lab Sample ID: 2172972**
**Field Sample ID: SB-40(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 64.9 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 102 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 66.9 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 75.4 | P | 30 - 160 |

**Lab Sample ID: 2172973**
**Field Sample ID: SB-40(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 66.4 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 82.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 65.1 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 70.4 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2172974**
**Field Sample ID: SB-41(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 78.9 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 102 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 79.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 77.2 | P | 30 - 160 |

**Lab Sample ID: 2172975**
**Field Sample ID: SB-41(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 72.1 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 93.7 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 71.7 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 82.1 | P | 30 - 160 |

**Lab Sample ID: 2172976**
**Field Sample ID: SB-41(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 65.5 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 76.7 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 67.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 76.8 | P | 30 - 160 |

**Lab Sample ID: 2172977**
**Field Sample ID: SB-42(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 73.5 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 109 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 75.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 87.2 | P | 30 - 160 |

**Lab Sample ID: 2172978**
**Field Sample ID: SB-42(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 69.4 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 84.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 69.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 83.4 | P | 30 - 160 |

**Lab Sample ID: 2172979**
**Field Sample ID: SB-42(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 70.6 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 108 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 72.1 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 79.4 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2172980**
**Field Sample ID: SB-43(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 67.3 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 90.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 70.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 87.9 | P | 30 - 160 |

**Lab Sample ID: 2172981**
**Field Sample ID: SB-43(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 78.2 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 103 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 82.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 89.6 | P | 30 - 160 |

**Lab Sample ID: 2172982**
**Field Sample ID: SB-43(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 84.5 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 115 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 85.0 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 88.3 | P | 30 - 160 |

**Lab Sample ID: 2172983**
**Field Sample ID: SB-44(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 73.2 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 96.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 73.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 83.6 | P | 30 - 160 |

**Lab Sample ID: 2172984**
**Field Sample ID: SB-44(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 68.3 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 73.0 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 68.2 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 80.7 | P | 30 - 160 |

**Lab Sample ID: 2172985**
**Field Sample ID: SB-44(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 71.2 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 94.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 71.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 89.3 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2172986**
**Field Sample ID: SB-45(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 75.3 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 91.7 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 80.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 85.4 | P | 30 - 160 |

**Lab Sample ID: 2172987**
**Field Sample ID: SB-45(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 81.5 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 91.2 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 82.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 85.9 | P | 30 - 160 |

**Lab Sample ID: 2172988**
**Field Sample ID: SB-45(2-2.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 71.9 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 94.2 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 75.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 77.1 | P | 30 - 160 |

**Lab Sample ID: 2172989**
**Field Sample ID: SB-46(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 73.6 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 95.9 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 74.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 73.6 | P | 30 - 160 |

**Lab Sample ID: 2173010**
**Field Sample ID: SB-46(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 122 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 99.0 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 129 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 106 | P | 30 - 160 |

**Lab Sample ID: 2173011**
**Field Sample ID: SB-46(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 99.0 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 73.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 108 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 91.4 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173012**
**Field Sample ID: SB-47(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 82.6 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 67.4 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 80.9 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 90.2 | P | 30 - 160 |

**Lab Sample ID: 2173013**
**Field Sample ID: SB-47(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 128 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 110 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 121 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 122 | P | 30 - 160 |

**Lab Sample ID: 2173014**
**Field Sample ID: SB-47(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 128 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 92.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 131 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 119 | P | 30 - 160 |

**Lab Sample ID: 2173015**
**Field Sample ID: SB-48(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 129 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 88.4 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 132 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 97.8 | P | 30 - 160 |

**Lab Sample ID: 2173016**
**Field Sample ID: SB-48(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 137 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 126 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 138 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 132 | P | 30 - 160 |

**Lab Sample ID: 2173017**
**Field Sample ID: SB-48(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 140 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 119 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 136 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 131 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173018**
**Field Sample ID: SB-49(0.0-0.5')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 150 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 138 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 156 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 160 | P | 30 - 160 |

**Lab Sample ID: 2173019**
**Field Sample ID: SB-49(0.5-2')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 147 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 110 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 148 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 128 | P | 30 - 160 |

**Lab Sample ID: 2173020**
**Field Sample ID: SB-49(2-3')**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 147 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 130 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 146 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 140 | P | 30 - 160 |

**Lab Sample ID: 2173021**
**Field Sample ID: SED 5**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 143 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 146 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 152 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 145 | P | 30 - 160 |

**Lab Sample ID: 2173022**
**Field Sample ID: SED 6**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 93.4 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 74.9 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 96.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 82.4 | P | 30 - 160 |

**Lab Sample ID: 2173023**
**Field Sample ID: SED 7**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 121 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 107 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 121 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 106 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173024**
**Field Sample ID: SW-2**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 112 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 96.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 113 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 121 | P | 30 - 160 |

**Lab Sample ID: 2173025**
**Field Sample ID: SW-3**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 100 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 78.7 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 85.2 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 87.6 | P | 30 - 160 |

**Lab Sample ID: 2173026**
**Field Sample ID: SW-4**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 98.6 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 77.4 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 105 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 91.2 | P | 30 - 160 |

**Lab Sample ID: 2173027**
**Field Sample ID: DUP 4 (SW-2-DUP)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 110 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 101 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 112 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 118 | P | 30 - 160 |

**Lab Sample ID: 2173028**
**Field Sample ID: FRB-5**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 116 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 104 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 114 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 105 | P | 30 - 160 |

**Lab Sample ID: 2173029**
**Field Sample ID: FRB-6**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 113 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 116 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 112 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 131 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173030**
**Field Sample ID: EQB-13**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 97.3 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 86.7 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 96.0 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 106 | P | 30 - 160 |

**Lab Sample ID: 2173031**
**Field Sample ID: EQB-14**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 112 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 93.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 114 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 101 | P | 30 - 160 |

**Lab Sample ID: 2173032**
**Field Sample ID: EQB-15**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 114 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 129 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 116 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 122 | P | 30 - 160 |

**Lab Sample ID: 2173033**
**Field Sample ID: EQB-16**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 101 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 103 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 103 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 114 | P | 30 - 160 |

**Lab Sample ID: 2173034**
**Field Sample ID: EQB-17**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 104 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 86.0 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 106 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 105 | P | 30 - 160 |

**Lab Sample ID: 2173035**
**Field Sample ID: EQB-11**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 102 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 54.4 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 102 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 109 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173036**
**Field Sample ID: EQB-12**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 87.2 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 73.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 93.7 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 99.9 | P | 30 - 160 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8321B**

**Run ID: A99084**

**Included Lab Sample IDs: 2172970, 2172971, 2172972, 2172973, 2172974, 2172975, 2172976, 2172977, 2172978, 2172979, 2172980, 2172981, 2172982, 2172983, 2172984, 2172985, 2172986, 2172987, 2172988, 2172989**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 61.6 | 65.9 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 63.9 | 61.6 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 69.6 | 63.9 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 81.1 | 81.9 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 81.3 | 83.5 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 81.9 | 81.3 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 89.5 | 81.1 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 72.1 | 77.6 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 77.6 | 71.0 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 78.2 | 72.1 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 88.2 | 95.0 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 95.0 | 86.1 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 98.1 | 88.2 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 93.6 | 95.2 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 95.2 | 93.1 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 99.7 | 93.6 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 77.5 | 84.4 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 84.4 | 79.9 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 90.6 | 77.5 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 92.6 | 98.0 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 94.8 | 95.3 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 95.3 | 92.6 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 80.9 | 90.6 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 95.7 | 80.9 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 97.6 | 95.7 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 122 | 134 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 129 | 122 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 134 | 135 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 86.7 | 92.2 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 92.2 | 85.5 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 93.1 | 86.7 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 103 | 100 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 95.4 | 103 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 100 | 114 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 87.4 | 91.0 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 91.0 | 88.9 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 93.2 | 87.4 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 91.8 | 91.9 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 91.9 | 95.6 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 99.8 | 91.8 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 101 | 91.4 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 91.4 | 96.5 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 96.5 | 92.7 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 106 | 106 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 94.0 | 106 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 98.3 | 94.0 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 80.5 | 84.5 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 82.3 | 83.7 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 84.5 | 82.3 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 92.6 | 80.5 | P/P | 60 - 160 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8321B**

**Run ID: A99084**

**Included Lab Sample IDs: 2172970, 2172971, 2172972, 2172973, 2172974, 2172975, 2172976, 2172977, 2172978, 2172979, 2172980, 2172981, 2172982, 2172983, 2172984, 2172985, 2172986, 2172987, 2172988, 2172989**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Perfluorooctanoic acid (PFOA) | 103 | 91.3 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 108 | 83.0 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 83.0 | 103 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 81.0 | 83.5 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 83.5 | 83.5 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 89.8 | 81.0 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 88.1 | 98.9 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 93.8 | 88.1 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 98.9 | 99.3 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 121 | 126 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 126 | 136 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 136 | 138 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 101 | 115 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 108 | 101 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 115 | 109 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 101 | 114 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 114 | 106 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 118 | 101 | P/P | 60 - 160 |

**Reference Method: EPA 8321B**

**Run ID: A99107**

**Included Lab Sample IDs: 2172930, 2172931, 2172932, 2172933, 2172934, 2172935, 2172936, 2172937, 2172938, 2172939, 2172940, 2172941, 2172942, 2172944, 2172945, 2172948, 2172949, 2173010, 2173011, 2173012**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 134 | 138 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 137 | 111 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 138 | 137 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 102 | 105 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 103 | 102 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 105 | 96.7 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 106 | 108 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 97.1 | 106 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 92.3 | 81.9 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 96.9 | 92.3 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 97.1 | 96.9 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 101 | 107 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 110 | 113 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 113 | 99.8 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 115 | 110 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 108 | 85.0 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 109 | 108 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 111 | 109 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 100 | 104 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 104 | 79.4 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 105 | 100 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 107 | 113 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 113 | 107 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 113 | 113 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 114 | 113 | P/P | 60 - 160 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8321B**

**Run ID: A99107**

**Included Lab Sample IDs: 2172930, 2172931, 2172932, 2172933, 2172934, 2172935, 2172936, 2172937, 2172938, 2172939, 2172940, 2172941, 2172942, 2172944, 2172945, 2172948, 2172949, 2173010, 2173011, 2173012**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Perfluorodecanoic acid (PFDA) | 101 | 111 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 103 | 101 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 111 | 84.5 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 101 | 94.4 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 109 | 105 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 94.4 | 109 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 101 | 111 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 107 | 90.8 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 109 | 107 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 110 | 109 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 109 | 82.0 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 87.1 | 109 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 97.2 | 87.1 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 104 | 114 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 108 | 110 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 108 | 108 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 110 | 98.2 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 99.0 | 104 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 105 | 88.8 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 86.0 | 105 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 89.6 | 96.5 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 95.9 | 86.0 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 100 | 104 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 104 | 92.3 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 99.5 | 100 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 122 | 101 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 95.8 | 122 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 98.0 | 95.8 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 108 | 110 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 110 | 101 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 112 | 110 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 118 | 112 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 98.7 | 108 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 94.7 | 95.8 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 95.8 | 97.2 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 97.2 | 85.9 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 116 | 127 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 120 | 122 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 122 | 104 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 123 | 120 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 72.1 | 83.0 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 73.5 | 72.1 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 83.0 | 76.7 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 101 | 123 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 103 | 101 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 123 | 98.6 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 114 | 98.8 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 84.9 | 114 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 98.8 | 112 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 104 | 86.4 | P/P | 60 - 160 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8321B**

**Run ID: A99107**

**Included Lab Sample IDs: 2172930, 2172931, 2172932, 2172933, 2172934, 2172935, 2172936, 2172937, 2172938, 2172939, 2172940, 2172941, 2172942, 2172944, 2172945, 2172948, 2172949, 2173010, 2173011, 2173012**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Perfluoroundecanoic acid (PFUnA) | 106 | 98.3 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 98.3 | 104 | P/P | 60 - 160 |

**Reference Method: EPA 8321B**

**Run ID: A99128**

**Included Lab Sample IDs: 2172943, 2172946, 2172947, 2173013, 2173014, 2173015, 2173016, 2173017, 2173018, 2173019, 2173020, 2173021, 2173022, 2173023**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 145 | 140 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 147 | 145 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 150 | 147 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 151 | 149 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 140 | 155 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 145 | 140 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 155 | 153 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 103 | 114 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 105 | 103 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 107 | 105 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 78.2 | 68.4 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 100 | 105 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 103 | 114 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 114 | 100 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 69.4 | 78.2 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 85.6 | 88.8 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 90.0 | 85.6 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 94.4 | 90.0 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 99.1 | 85.0 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 85.6 | 88.8 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 85.6 | 87.1 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 88.8 | 85.6 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 115 | 117 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 116 | 116 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 117 | 118 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 118 | 116 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 116 | 116 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 116 | 118 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 118 | 119 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 102 | 98.6 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 113 | 101 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 117 | 102 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 98.6 | 102 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 101 | 100 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 102 | 101 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 98.6 | 102 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 109 | 111 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 111 | 115 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 111 | 109 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 113 | 111 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 107 | 115 | P/P | 60 - 160 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8321B**

**Run ID: A99128**

**Included Lab Sample IDs: 2173024, 2173025, 2173026, 2173027, 2173028, 2173029, 2173030, 2173031, 2173032, 2173033, 2173034, 2173035, 2173036**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Perfluorobutanesulfonic acid (PFBS) | 111 | 115 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 115 | 107 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 88.6 | 87.0 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 108 | 104 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 115 | 120 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 116 | 115 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 117 | 116 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 112 | 118 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 115 | 120 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 120 | 112 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 101 | 97.7 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 113 | 97.2 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 97.2 | 85.1 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 98.5 | 113 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 85.1 | 87.5 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 87.5 | 94.2 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 97.2 | 85.1 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 100 | 98.8 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 108 | 121 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 121 | 100 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 83.8 | 104 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 100 | 98.8 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 101 | 108 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 98.8 | 101 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 106 | 104 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 107 | 106 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 110 | 107 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 118 | 105 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 104 | 105 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 105 | 107 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 106 | 104 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 109 | 98.8 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 112 | 110 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 116 | 116 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 116 | 109 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 102 | 114 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 109 | 98.8 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 122 | 121 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 98.8 | 102 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 110 | 111 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 111 | 110 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 115 | 110 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 128 | 115 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 101 | 108 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 110 | 111 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 110 | 110 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 111 | 110 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 106 | 88.9 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 80.4 | 106 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 88.9 | 92.8 | P/P | 60 - 160 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8321B**

**Run ID: A99128**

**Included Lab Sample IDs: 2172943, 2172946, 2172947, 2173013, 2173014, 2173015, 2173016, 2173017, 2173018, 2173019, 2173020, 2173021, 2173022, 2173023**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Perfluorohexanoic acid (PFHxA) | 94.7 | 109 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 113 | 113 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 88.9 | 92.8 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 92.8 | 94.3 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 94.3 | 91.1 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 105 | 105 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 107 | 109 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 109 | 105 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 110 | 106 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 104 | 108 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 105 | 105 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 105 | 104 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 105 | 107 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 105 | 97.0 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 107 | 93.3 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 95.7 | 105 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 107 | 93.3 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 92.6 | 95.3 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 93.3 | 92.6 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 104 | 103 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 107 | 107 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 107 | 104 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 108 | 107 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 101 | 105 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 103 | 101 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 104 | 103 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 95.1 | 98.1 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 92.8 | 82.1 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 93.3 | 84.5 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 94.4 | 95.1 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 95.1 | 92.8 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 82.1 | 96.5 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 92.8 | 82.1 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 96.5 | 78.0 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 120 | 122 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 120 | 120 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 122 | 122 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 131 | 119 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 115 | 124 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 122 | 115 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 122 | 122 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 90.8 | 95.2 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 68.5 | 79.6 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 77.4 | 84.4 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 83.4 | 71.1 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 84.4 | 83.4 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 120 | 97.9 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 71.1 | 77.2 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 77.2 | 85.4 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 83.4 | 71.1 | P/P | 60 - 160 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8321B**

**Run ID: A99128**

**Included Lab Sample IDs: 2172943, 2172946, 2172947, 2173013, 2173014, 2173015, 2173016, 2173017, 2173018, 2173019, 2173020, 2173021, 2173022, 2173023**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Perfluorotetradecanoic acid (PFTeA) | 108 | 125 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 114 | 122 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 125 | 130 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 130 | 110 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 109 | 106 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 110 | 109 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 130 | 110 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 106 | 96.2 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 79.7 | 80.1 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 91.4 | 106 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 96.2 | 90.2 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 109 | 96.6 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 90.2 | 109 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 96.2 | 90.2 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 106 | 109 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 107 | 106 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 109 | 99.9 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 109 | 79.5 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 109 | 79.5 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 79.5 | 86.1 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 86.1 | 87.5 | P/P | 60 - 160 |

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | | MS % Recovery | | Precision | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | LCS | SMP | MS |
| EPA 8321B | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 146 | | 79.9 | 94.1 | | | 16.3 |
| | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 57.0 | | 66.5 | 64.6 | | | 2.90 |
| | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 87.3 | | 105 | 109 | | | 4.24 |
| | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 87.5 | 96.3 | | | 9.65 | | |
| | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 99.8 | | 110 | 123 | | | 10.9 |
| | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 64.9 | | | | | | 2.28 |
| | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 98.0 | | | | | | 9.18 |
| | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 124 | 143 | | | 13.6 | | |
| | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 77.2 | | 92.1 | 96.5 | | | 4.57 |
| | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 60.2 | | 84.8 | 82.2 | | | 3.10 |
| | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 81.1 | | 88.3 | 98.3 | | | 10.7 |
| | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 93.4 | 104 | | | 10.3 | | |
| | N-Et perfluorooctanesulfonamidoAc acid | 120 | | 122 | 140 | | | 13.4 |
| | N-Et perfluorooctanesulfonamidoAc acid | 76.9 | | 92.4 | 90.6 | | | 1.95 |
| | N-Et perfluorooctanesulfonamidoAc acid | 123 | | 139 | 144 | | | 3.90 |
| | N-Et perfluorooctanesulfonamidoAc acid | 111 | 114 | | | 2.93 | | |
| | N-Me perfluorooctanesulfonamidoAc acid | 118 | | 123 | 132 | | | 6.44 |
| | N-Me perfluorooctanesulfonamidoAc acid | 76.4 | | 102 | 92.4 | | | 10.4 |
| | N-Me perfluorooctanesulfonamidoAc acid | 107 | | 110 | 117 | | | 6.03 |
| | N-Me perfluorooctanesulfonamidoAc acid | 113 | 114 | | | 0.783 | | |
| | Perfluorobutanesulfonic acid (PFBS) | 123 | | 133 | 151 | | | 12.6 |
| | Perfluorobutanesulfonic acid (PFBS) | 77.6 | | 75.0 | 73.5 | | | 2.05 |
| | Perfluorobutanesulfonic acid (PFBS) | 130 | | | | | | 3.01 |
| | Perfluorobutanesulfonic acid (PFBS) | 114 | 122 | | | 6.36 | | |
| | Perfluorodecanesulfonic acid (PFDS) | 140 | | 130 | 148 | | | 12.5 |
| | Perfluorodecanesulfonic acid (PFDS) | 87.9 | | 81.9 | 79.6 | | | 2.87 |
| | Perfluorodecanesulfonic acid (PFDS) | 136 | | 138 | 151 | | | 9.53 |
| | Perfluorodecanesulfonic acid (PFDS) | 107 | 116 | | | 8.03 | | |
| | Perfluorodecanoic acid (PFDA) | 132 | | 134 | 157 | | | 15.6 |
| | Perfluorodecanoic acid (PFDA) | 89.1 | | 85.9 | 82.1 | | | 4.53 |
| | Perfluorodecanoic acid (PFDA) | 110 | | 125 | 130 | | | 3.21 |
| | Perfluorodecanoic acid (PFDA) | 96.6 | 109 | | | 12.3 | | |

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | | MS % Recovery | | Precision | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | LCS | SMP | MS |
| EPA 8321B | Perfluorododecanoic acid (PFDoA) | 109 | | 124 | 148 | | | 17.5 |
| | Perfluorododecanoic acid (PFDoA) | 114 | | 108 | 120 | | | 11.1 |
| | Perfluorododecanoic acid (PFDoA) | 127 | | 128 | 129 | | | 0.0793 |
| | Perfluorododecanoic acid (PFDoA) | 94.6 | 98.3 | | | 3.83 | | |
| | Perfluoroheptanesulfonic acid (PFHpS) | 124 | | 135 | 150 | | | 10.5 |
| | Perfluoroheptanesulfonic acid (PFHpS) | 83.6 | | 78.5 | 76.5 | | | 2.59 |
| | Perfluoroheptanesulfonic acid (PFHpS) | 128 | | | | | | 2.74 |
| | Perfluoroheptanesulfonic acid (PFHpS) | 115 | 110 | | | 4.14 | | |
| | Perfluoroheptanoic acid (PFHpA) | 108 | | 128 | 135 | | | 4.91 |
| | Perfluoroheptanoic acid (PFHpA) | 93.3 | | 77.3 | 75.1 | | | 2.08 |
| | Perfluoroheptanoic acid (PFHpA) | 147 | | | | | | 14.6 |
| | Perfluoroheptanoic acid (PFHpA) | 111 | 121 | | | 8.07 | | |
| | Perfluorohexanesulfonic acid (PFHxS) | 131 | | | | | | 10.1 |
| | Perfluorohexanesulfonic acid (PFHxS) | 84.2 | | 89.4 | 76.3 | | | 10.9 |
| | Perfluorohexanesulfonic acid (PFHxS) | 132 | | | | | | 4.32 |
| | Perfluorohexanesulfonic acid (PFHxS) | 117 | 119 | | | 1.69 | | |
| | Perfluorohexanoic acid (PFHxA) | 118 | | 138 | 136 | | | 1.53 |
| | Perfluorohexanoic acid (PFHxA) | 86.9 | | 79.4 | 77.2 | | | 2.05 |
| | Perfluorohexanoic acid (PFHxA) | 108 | | | | | | 9.59 |
| | Perfluorohexanoic acid (PFHxA) | 84.9 | 105 | | | 21.0 | | |
| | Perfluorononanesulfonic acid (PFNS) | 120 | | 122 | 144 | | | 16.2 |
| | Perfluorononanesulfonic acid (PFNS) | 87.1 | | 83.1 | 78.9 | | | 5.18 |
| | Perfluorononanesulfonic acid (PFNS) | 125 | | 134 | 143 | | | 5.99 |
| | Perfluorononanesulfonic acid (PFNS) | 107 | 113 | | | 5.04 | | |
| | Perfluorononanoic acid (PFNA) | 116 | | 151 | 133 | | | 12.7 |
| | Perfluorononanoic acid (PFNA) | 96.1 | | 83.7 | 88.5 | | | 5.64 |
| | Perfluorononanoic acid (PFNA) | 117 | | 151 | 147 | | | 2.24 |
| | Perfluorononanoic acid (PFNA) | 92.5 | 108 | | | 15.3 | | |
| | Perfluorooctanesulfonic acid (PFOS) | 129 | | 122 | 142 | | | 15.4 |
| | Perfluorooctanesulfonic acid (PFOS) | 78.8 | | 77.9 | 71.4 | | | 6.36 |
| | Perfluorooctanesulfonic acid (PFOS) | 124 | | | | | | 14.7 |
| | Perfluorooctanesulfonic acid (PFOS) | 107 | 114 | | | 6.40 | | |
| | Perfluorooctanoic acid (PFOA) | 100 | | 118 | 110 | | | 7.29 |
| | Perfluorooctanoic acid (PFOA) | 94.8 | | 81.9 | 90.6 | | | 9.31 |
| | Perfluorooctanoic acid (PFOA) | 98.1 | | | | | | 8.37 |
| | Perfluorooctanoic acid (PFOA) | 107 | 99.2 | | | 7.62 | | |
| | Perfluoropentanesulfonic acid (PFPeS) | 144 | | 104 | 120 | | | 13.1 |
| | Perfluoropentanesulfonic acid (PFPeS) | 75.8 | | 76.8 | 73.0 | | | 5.10 |
| | Perfluoropentanesulfonic acid (PFPeS) | 141 | | | | | | 5.54 |

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | | MS % Recovery | | Precision | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | LCS | SMP | MS |
| EPA 8321B | Perfluoropentanesulfonic acid (PFPeS) | 126 | 132 | | | 5.19 | | |
| | Perfluoropentanoic acid (PFPeA) | 96.4 | | 146 | 155 | | | 6.09 |
| | Perfluoropentanoic acid (PFPeA) | 83.7 | | 77.3 | 86.5 | | | 6.43 |
| | Perfluoropentanoic acid (PFPeA) | 91.2 | | | | | | 5.49 |
| | Perfluoropentanoic acid (PFPeA) | 75.7 | 90.7 | | | 18.0 | | |
| | Perfluorotetradecanoic acid (PFTeA) | 129 | | 144 | 140 | | | 3.39 |
| | Perfluorotetradecanoic acid (PFTeA) | 90.5 | | 100 | 92.6 | | | 7.91 |
| | Perfluorotetradecanoic acid (PFTeA) | 149 | | 108 | 129 | | | 17.8 |
| | Perfluorotetradecanoic acid (PFTeA) | 80.0 | 74.2 | | | 7.48 | | |
| | Perfluorotridecanoic acid (PFTriA) | 121 | | 125 | 135 | | | 7.89 |
| | Perfluorotridecanoic acid (PFTriA) | 105 | | 108 | 114 | | | 5.11 |
| | Perfluorotridecanoic acid (PFTriA) | 106 | | 113 | 116 | | | 2.81 |
| | Perfluorotridecanoic acid (PFTriA) | 66.3 | 74.1 | | | 11.1 | | |
| | Perfluoroundecanoic acid (PFUnA) | 106 | | 121 | 132 | | | 9.01 |
| | Perfluoroundecanoic acid (PFUnA) | 105 | | 88.8 | 97.2 | | | 8.99 |
| | Perfluoroundecanoic acid (PFUnA) | 105 | | 104 | 128 | | | 20.8 |
| | Perfluoroundecanoic acid (PFUnA) | 101 | 104 | | | 3.48 | | |

# Reference Method Descriptions

| Method | Description | Associated Samples |
|---|---|---|
| EPA 8321B | Perfluorinated alkyl substances in sediment/solid matrices by HPLC/MS/MS | 2172930, 2172931, 2172932, 2172933, 2172934, 2172935, 2172936, 2172937, 2172938, 2172939, 2172940, 2172941, 2172942, 2172943, 2172944, 2172945, 2172946, 2172947, 2172948, 2172949, 2172970, 2172971, 2172972, 2172973, 2172974, 2172975, 2172976, 2172977, 2172978, 2172979, 2172980, 2172981, 2172982, 2172983, 2172984, 2172985, 2172986, 2172987, 2172988, 2172989, 2173010, 2173011, 2173012, 2173013, 2173014, 2173015, 2173016, 2173017, 2173018, 2173019, 2173020, 2173021, 2173022, 2173023 |
| EPA 8321B | Perfluorinated alkyl substances in water matrices by HPLC/MS/MS | 2173024, 2173025, 2173026, 2173027, 2173028, 2173029, 2173030, 2173031, 2173032, 2173033, 2173034, 2173035, 2173036 |
| SM 2540 G (20th) | Percent solid determination before the other sample preparations. | 2172950, 2172951, 2172952, 2172953, 2172954, 2172955, 2172956, 2172957, 2172958, 2172959, 2172960, 2172961, 2172962, 2172963, 2172964, 2172965, 2172966, 2172967, 2172968, 2172969, 2172990, 2172991, 2172992, 2172993, 2172994, 2172995, 2172996, 2172997, 2172998, 2172999, 2173000, 2173001, 2173002, 2173003, 2173004, 2173005, 2173006, 2173007, 2173008, 2173009, 2173037, 2173038, 2173039, 2173040, 2173041, 2173042, 2173043, 2173044, 2173045, 2173046, 2173047, 2173048, 2173049, 2173050 |

# Preparation and Analysis Log

| Ref. Method | Received Date | Prep Date/Time | Prepared By | Analysis Date/Time | Analyzed By | Associated Samples |
|---|---|---|---|---|---|---|
| EPA 8321B | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 07:18 | Pramila Ghimire | 2172970 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 07:38 | Pramila Ghimire | 2172971 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 07:57 | Pramila Ghimire | 2172972 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 08:17 | Pramila Ghimire | 2172973 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 08:56 | Pramila Ghimire | 2172974 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 09:16 | Pramila Ghimire | 2172975 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 09:36 | Pramila Ghimire | 2172976 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 09:55 | Pramila Ghimire | 2172977 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 10:15 | Pramila Ghimire | 2172978 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 10:35 | Pramila Ghimire | 2172979 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 10:54 | Pramila Ghimire | 2172980 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 11:14 | Pramila Ghimire | 2172981 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 11:53 | Pramila Ghimire | 2172982 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 12:13 | Pramila Ghimire | 2172983 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 12:33 | Pramila Ghimire | 2172984 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 12:52 | Pramila Ghimire | 2172985 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 13:12 | Pramila Ghimire | 2172986 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 13:32 | Pramila Ghimire | 2172987 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 13:51 | Pramila Ghimire | 2172988 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 14:11 | Pramila Ghimire | 2172989 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 15:49 | Pramila Ghimire | 2172982 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 16:09 | Pramila Ghimire | 2172984 |
| | 05/21/2020 | 05/22/2020 15:00 | Pramila Ghimire | 05/24/2020 16:28 | Pramila Ghimire | 2172986 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 03:48 | Pramila Ghimire | 2172931 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 04:08 | Pramila Ghimire | 2172930 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 04:27 | Pramila Ghimire | 2172932 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 04:47 | Pramila Ghimire | 2172933 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 05:26 | Pramila Ghimire | 2172934 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 05:46 | Pramila Ghimire | 2172935 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 06:05 | Pramila Ghimire | 2172936 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 06:25 | Pramila Ghimire | 2172937 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 06:45 | Pramila Ghimire | 2172938 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 07:04 | Pramila Ghimire | 2172939 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 07:24 | Pramila Ghimire | 2172940 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 07:44 | Pramila Ghimire | 2172941 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 08:23 | Pramila Ghimire | 2172942 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 08:43 | Pramila Ghimire | 2172944 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 09:02 | Pramila Ghimire | 2172945 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 09:22 | Pramila Ghimire | 2172948 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 09:42 | Pramila Ghimire | 2172949 |

# Preparation and Analysis Log

| Ref. Method | Received Date | Prep Date/Time | Prepared By | Analysis Date/Time | Analyzed By | Associated Samples |
|---|---|---|---|---|---|---|
| EPA 8321B | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 10:01 | Pramila Ghimire | 2173010 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 10:21 | Pramila Ghimire | 2173011 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 10:41 | Pramila Ghimire | 2173012 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 12:58 | Pramila Ghimire | 2172933 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 13:18 | Pramila Ghimire | 2172936 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 13:37 | Pramila Ghimire | 2173012 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 14:17 | Pramila Ghimire | 2172937 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 14:36 | Pramila Ghimire | 2172937 |
| | 05/21/2020 | 05/26/2020 16:30 | Hoor Shaik | 05/28/2020 14:56 | Pramila Ghimire | 2172944 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 18:16 | Pramila Ghimire | 2172943 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 18:36 | Pramila Ghimire | 2172946 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 18:55 | Pramila Ghimire | 2172947 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 19:35 | Pramila Ghimire | 2173013 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 19:54 | Pramila Ghimire | 2173015 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 20:14 | Pramila Ghimire | 2173016 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 20:34 | Pramila Ghimire | 2173017 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 20:53 | Pramila Ghimire | 2173018 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 21:13 | Pramila Ghimire | 2173019 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 21:33 | Pramila Ghimire | 2173020 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 21:52 | Pramila Ghimire | 2173021 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 22:31 | Pramila Ghimire | 2173022 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/29/2020 22:51 | Pramila Ghimire | 2173023 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/31/2020 20:14 | Pramila Ghimire | 2173014 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/31/2020 20:34 | Pramila Ghimire | 2173014 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/31/2020 20:54 | Pramila Ghimire | 2173013 |
| | 05/21/2020 | 05/28/2020 14:00 | Hoor Shaik | 05/31/2020 21:13 | Pramila Ghimire | 2172943 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 00:49 | Pramila Ghimire | 2173024 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 01:28 | Pramila Ghimire | 2173025 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 01:48 | Pramila Ghimire | 2173026 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 02:07 | Pramila Ghimire | 2173027 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 02:27 | Pramila Ghimire | 2173028 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 02:47 | Pramila Ghimire | 2173029 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 03:06 | Pramila Ghimire | 2173030 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 03:26 | Pramila Ghimire | 2173031 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 03:46 | Pramila Ghimire | 2173032 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 04:25 | Pramila Ghimire | 2173033 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 04:45 | Pramila Ghimire | 2173034 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 05:04 | Pramila Ghimire | 2173035 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/30/2020 05:24 | Pramila Ghimire | 2173036 |
| | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/31/2020 17:18 | Pramila Ghimire | 2173025 |

# Preparation and Analysis Log

| Ref. Method | Received Date | Prep Date/Time | Prepared By | Analysis Date/Time | Analyzed By | Associated Samples |
|---|---|---|---|---|---|---|
| EPA 8321B | 05/21/2020 | 05/29/2020 15:00 | Hoor Shaik | 05/31/2020 17:37 | Pramila Ghimire | 2173026 |

# Chemical Analysis Report

**SIS-2020-05-29-02**

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Hillsborough Community College Soil/Water**
Request ID: **RQ-2020-05-18-30**
Customer: **SIS**
Project ID: **FC-HILLSCC**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Road
Twin Towers Bldg. MS# 4515
Tallahassee, FL 32399
Attn: Jeff Newton

For additional information please contact
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Liang-Tsair Lin, Ph.D.
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Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 10-JUN-2020 11:53

**NON-CONFORMANCE REPORT INCLUDED**

## Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical group are included in this report: Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to $1.3 \times 10^3$ or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/26/2020 17:31**

**Field ID: DEPMW-21(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173856 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 7.4 | Y | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.3 | I Y | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 10 | Y | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 11 | Y | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 11 | Y | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 28 | Y | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 62 | Y | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 4.6 | Y | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 6.0 | I Y | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/26/2020 16:34**

**Field ID: DEPMW-20(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173857 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 7.6 | Y | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 12 | Y | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 9.7 | Y | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 9.2 | Y | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 65 | Y | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 15 | Y | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 30 | Y | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 10 | Y | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/26/2020 15:50**

**Field ID: DEPMW-2(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173858 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 4.7E+03 | Y | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.2E+04 | Y | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 5.6E+03 | Y | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 4.7 | Y | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 9.4E+03 | Y | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.4E+04 | Y | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 1.7E+04 | Y | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 250 | Y | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 3.0E+04 | Y | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 140 | Y | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 6.0E+03 | Y | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 1.1E+05 | Y | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 26 | Y | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 880 | Y | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/26/2020 15:10**

**Field ID: DEPMW-9(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173859 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 4.1 | Y | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 18 | Y | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 11 | Y | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 49 | Y | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 3.9 | Y | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 250 | Y | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.7 | I Y | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 440 | Y | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 4.4 | Y | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/26/2020 14:21**

**Field ID: DEPMW-7R(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173860 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 4.1 | | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 9.1 | | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 3.6 | | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 5.7 | I | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.4 | | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 7.0 | I | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 12 | I | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 12 | I | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382712 | |

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/26/2020 13:20**

**Field ID: DEPMW-8(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173861 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 7.2 | IY | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.56 | IY | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | UY | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/26/2020 13:16**

**Field ID: DEPMW-3(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173862 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.2 | I Y | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 4.1 | I Y | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 1.4 | I Y | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 1.0 | I Y | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.3 | I Y | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | UY | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 110 | Y | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/26/2020 14:47**

**Field ID: DEPMW-12(110-130)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173863 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 6.0 | Y | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 23 | Y | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 4.0 | Y | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.7 | I Y | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 6.3 | Y | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 3.7 | I Y | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 5.5 | I Y | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.65 | I Y | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/26/2020 15:47**

**Field ID: DEPMW-4(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173864 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 22 | Y | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 3.6 | I Y | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 13 | Y | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 72 | Y | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 34 | Y | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 160 | Y | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 190 | Y | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 7.4 | Y | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/26/2020 17:22**

**Field ID: DEPMW-18(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173865 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.9 | I Y | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 4.2 | I Y | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.91 | I Y | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.59 | I Y | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.9 | I Y | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 5.3 | I Y | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/26/2020 16:28**

**Field ID: DEPMW-1(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173866 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 5.3 | Y | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 16 | Y | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 3.1 | Y | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 13 | Y | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 6.5 | Y | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 32 | Y | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.6 | IY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 65 | Y | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 1.2 | IY | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 5.1 | IY | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/26/2020 18:06**

**Field ID: DEPMW-19(32-52)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173867 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 5.9 | Y | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 41 | Y | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 2.7 | Y | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.4 | I Y | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 4.3 | Y | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.9 | I Y | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 6.9 | I Y | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.71 | I Y | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 5.9 | I Y | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.62 | I Y | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 18:25**

**Field ID: DEPMW-13(100-120)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173880 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | UY | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 18:36**

**Field ID: DEPMW-17(27-47)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173881 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.1 | IY | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | UY | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 11:38**

**Field ID: DEPMW-10(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173882 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 5.3 | Y | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 33 | Y | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 2.0 | Y | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 3.1 | I Y | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.1 | Y | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.5 | I Y | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.5 | I Y | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | UY | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 11:05**

**Field ID: DEPMW-14(110-130)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173883 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | UY | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 12 | I Y | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 14:12**

**Field ID: DEPMW-5(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173884 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 160 | Y | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 980 | Y | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 820 | Y | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 390 | Y | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.2E+03 | Y | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 970 | Y | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 18 | Y | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 1.1E+03 | Y | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 58 | Y | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 700 | Y | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 3.7E+03 | Y | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 16 | Y | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 9.9 | Y | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 17:30**

**Field ID: DEPMW-16(36-56)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173885 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.5 | I | ng/L | P382768 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 9.2 | | ng/L | P382768 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.67 | I | ng/L | P382768 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.2 | | ng/L | P382768 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382768 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382768 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382768 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382768 | MS |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382768 | |

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 13:40**

**Field ID: DEPMW-15(110-130)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173886 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 8.9 | | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 1.2 | I | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 1.4 | I | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382712 | |

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 16:02**

**Field ID: DEPMW-11(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173887 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 2.4 | I | ng/L | P382768 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 8.3 | | ng/L | P382768 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 8.4 | | ng/L | P382768 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.5 | | ng/L | P382768 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382768 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382768 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382768 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382768 | MS |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382768 | |

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 15:25**

**Field ID: DEPMW-23(32-52)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173888 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 6.9 | I | ng/L | P382768 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.56 | I | ng/L | P382768 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 1.9 | | ng/L | P382768 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382768 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382768 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382768 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382768 | MS |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382768 | |

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/28/2020 09:20**

**Field ID: DEPMW-6(2-12)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173889 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 6.8 | | ng/L | P382768 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 4.4 | I | ng/L | P382768 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 44 | | ng/L | P382768 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 51 | | ng/L | P382768 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 21 | | ng/L | P382768 | |
| | | Perfluorohexanoic acid (PFHxA)** | 180 | | ng/L | P382768 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382768 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoropentanoic acid (PFPeA)** | 390 | | ng/L | P382768 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 3.3 | I | ng/L | P382768 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 17 | | ng/L | P382768 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 190 | | ng/L | P382768 | MS |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382768 | |

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/28/2020 10:37**

**Field ID: DEPMW-22(40-60)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173890 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 3.5 | I | ng/L | P382768 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.54 | I | ng/L | P382768 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.3 | | ng/L | P382768 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382768 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382768 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382768 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 5.3 | I J | ng/L | P382768 | MS |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 6.1 | I | ng/L | P382768 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382768 | |

Ref. Method and Comment:
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 13:33**

**Field ID: FRB 7** Matrix: W-FRB

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173893 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382768 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382768 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | UY | ng/L | P382768 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382768 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382768 | MS |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382768 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/28/2020 10:48**

**Field ID: FRB 8** Matrix: W-FRB

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173894 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382768 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382768 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382768 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382768 | MS |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382768 | |

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 09:31**

**Field ID: EQB 18** Matrix: W-EQPMT-BK

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173897 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382768 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382768 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | UY | ng/L | P382768 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382768 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382768 | MS |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382768 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/28/2020 08:50**

**Field ID: EQB 19** Matrix: W-EQPMT-BK

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173898 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382768 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382768 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | U | ng/L | P382768 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382768 | MS |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382768 | |

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 18:25**

**Field ID: DUP-7 (100-120)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173891 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | UY | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/27/2020 17:30**

**Field ID: DUP-8 (36-56)** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173892 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.1 | I | ng/L | P382768 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 9.7 | | ng/L | P382768 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.60 | I | ng/L | P382768 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 2.2 | | ng/L | P382768 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | U | ng/L | P382768 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | U | ng/L | P382768 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | U | ng/L | P382768 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | U | ng/L | P382768 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.50 | I | ng/L | P382768 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | U | ng/L | P382768 | MS |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | U | ng/L | P382768 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | U | ng/L | P382768 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | U | ng/L | P382768 | |

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/28/2020 11:45**

**Field ID: FRB 9** Matrix: W-FRB

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173895 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382768 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382768 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | UY | ng/L | P382768 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382768 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382768 | MS |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382768 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College** **Collection Date/Time: 05/28/2020 11:47**

**Field ID: FRB 10** Matrix: W-FRB

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173896 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382768 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382768 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382768 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | UY | ng/L | P382768 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382768 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382768 | MS |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382768 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382768 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382768 | |

Ref. Method and Comment:
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

# Non-Conformance Report

**NCR ID: 8289**

| Event(s) | Job(s) | Sample(s) | Test(s) |
|---|---|---|---|
| SIS-2020-05-29-02 | TLH-2020-05-29-69 | 2173856 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-69 | 2173857 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-69 | 2173858 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-69 | 2173859 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-69 | 2173861 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-69 | 2173862 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-69 | 2173863 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-69 | 2173864 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-69 | 2173865 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-69 | 2173866 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-69 | 2173867 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-71 | 2173880 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-71 | 2173881 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-71 | 2173882 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-71 | 2173883 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-71 | 2173884 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-71 | 2173891 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-71 | 2173893 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-71 | 2173895 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-71 | 2173896 | |
| SIS-2020-05-29-02 | TLH-2020-05-29-71 | 2173897 | |

**NCR Type: SHIPPING/RECEIVING** **NCR Category: Preservation Not Intact**

Observation: Samples received outside the acceptable temperature range.

Resolution: Jeff Newton was notified.
Data will be qualified as appropriate.

Authorized by/Date: Joshua Ayres 6/3/2020

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

| | | |
|---|---|---|
| Chemistry | Colin Wright | (850) 245-8085 |
| Biology | Cheryl Swanson | (850) 245-8177 |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8321B**
**Batch ID: P382712**

| Component | Result | Code | Units |
|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 2.0 | U | ng/L |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 4.0 | U | ng/L |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 2.0 | U | ng/L |
| N-Et perfluorooctanesulfonamidoAc acid | 0.40 | U | ng/L |
| N-Me perfluorooctanesulfonamidoAc acid | 0.40 | U | ng/L |
| Perfluorobutanesulfonic acid (PFBS) | 0.40 | U | ng/L |
| Perfluorodecanesulfonic acid (PFDS) | 0.40 | U | ng/L |
| Perfluorodecanoic acid (PFDA) | 1.0 | U | ng/L |
| Perfluorododecanoic acid (PFDoA) | 1.0 | U | ng/L |
| Perfluoroheptanesulfonic acid (PFHpS) | 0.40 | U | ng/L |
| Perfluoroheptanoic acid (PFHpA) | 2.0 | U | ng/L |
| Perfluorohexanesulfonic acid (PFHxS) | 0.40 | U | ng/L |
| Perfluorohexanoic acid (PFHxA) | 2.0 | U | ng/L |
| Perfluorononanesulfonic acid (PFNS) | 0.40 | U | ng/L |
| Perfluorononanoic acid (PFNA) | 1.0 | U | ng/L |
| Perfluorooctanesulfonic acid (PFOS) | 2.0 | U | ng/L |
| Perfluorooctanoic acid (PFOA) | 1.0 | U | ng/L |
| Perfluoropentanesulfonic acid (PFPeS) | 0.40 | U | ng/L |
| Perfluoropentanoic acid (PFPeA) | 4.0 | U | ng/L |
| Perfluorotetradecanoic acid (PFTeA) | 0.40 | U | ng/L |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | ng/L |
| Perfluoroundecanoic acid (PFUnA) | 1.0 | U | ng/L |

**Reference Method: EPA 8321B**
**Batch ID: P382768**

| Component | Result | Code | Units |
|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 2.0 | U | ng/L |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 4.0 | U | ng/L |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 2.0 | U | ng/L |
| N-Et perfluorooctanesulfonamidoAc acid | 0.40 | U | ng/L |
| N-Me perfluorooctanesulfonamidoAc acid | 0.40 | U | ng/L |
| Perfluorobutanesulfonic acid (PFBS) | 0.40 | U | ng/L |
| Perfluorodecanesulfonic acid (PFDS) | 0.40 | U | ng/L |
| Perfluorodecanoic acid (PFDA) | 1.0 | U | ng/L |
| Perfluorododecanoic acid (PFDoA) | 1.0 | U | ng/L |
| Perfluoroheptanesulfonic acid (PFHpS) | 0.40 | U | ng/L |
| Perfluoroheptanoic acid (PFHpA) | 2.0 | U | ng/L |
| Perfluorohexanesulfonic acid (PFHxS) | 0.40 | U | ng/L |
| Perfluorohexanoic acid (PFHxA) | 2.0 | U | ng/L |
| Perfluorononanesulfonic acid (PFNS) | 0.40 | U | ng/L |
| Perfluorononanoic acid (PFNA) | 1.0 | U | ng/L |
| Perfluorooctanesulfonic acid (PFOS) | 2.0 | U | ng/L |
| Perfluorooctanoic acid (PFOA) | 1.0 | U | ng/L |
| Perfluoropentanesulfonic acid (PFPeS) | 0.40 | U | ng/L |
| Perfluoropentanoic acid (PFPeA) | 4.0 | U | ng/L |
| Perfluorotetradecanoic acid (PFTeA) | 0.40 | U | ng/L |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | ng/L |
| Perfluoroundecanoic acid (PFUnA) | 1.0 | U | ng/L |

# Quality Assurance Report
# Laboratory Control Sample Accuracy

**Reference Method: EPA 8321B**
**Batch ID: P382712**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 134 | | P | 30 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 105 | | P | 30 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 107 | | P | 30 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 83.4 | | P | 30 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 80.4 | | P | 30 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 113 | | P | 30 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 94.9 | | P | 30 - 160 |
| Perfluorodecanoic acid (PFDA) | 103 | | P | 30 - 160 |
| Perfluorododecanoic acid (PFDoA) | 99.3 | | P | 30 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 114 | | P | 30 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 125 | | P | 30 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 93.7 | | P | 30 - 160 |
| Perfluorohexanoic acid (PFHxA) | 98.4 | | P | 30 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 124 | | P | 30 - 160 |
| Perfluorononanoic acid (PFNA) | 96.4 | | P | 30 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 113 | | P | 30 - 160 |
| Perfluorooctanoic acid (PFOA) | 98.2 | | P | 30 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 110 | | P | 30 - 160 |
| Perfluoropentanoic acid (PFPeA) | 123 | | P | 30 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 52.7 | | P | 30 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 68.3 | | P | 30 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 100 | | P | 30 - 160 |

**Reference Method: EPA 8321B**
**Batch ID: P382768**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 129 | | P | 30 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 120 | | P | 30 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 82.7 | | P | 30 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 65.8 | | P | 30 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 83.0 | | P | 30 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 125 | | P | 30 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 116 | | P | 30 - 160 |
| Perfluorodecanoic acid (PFDA) | 109 | | P | 30 - 160 |
| Perfluorododecanoic acid (PFDoA) | 114 | | P | 30 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 118 | | P | 30 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 135 | | P | 30 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 120 | | P | 30 - 160 |
| Perfluorohexanoic acid (PFHxA) | 113 | | P | 30 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 119 | | P | 30 - 160 |
| Perfluorononanoic acid (PFNA) | 88.9 | | P | 30 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 111 | | P | 30 - 160 |
| Perfluorooctanoic acid (PFOA) | 107 | | P | 30 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 129 | | P | 30 - 160 |
| Perfluoropentanoic acid (PFPeA) | 112 | | P | 30 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 111 | | P | 30 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 86.4 | | P | 30 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 97.9 | | P | 30 - 160 |

# Quality Assurance Report
# Matrix Spike Accuracy

**Reference Method: EPA 8321B**
**Batch ID: P382712**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173850 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 143 | 135 | P/P | 30 - 160 |
| 2173850 | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 129 | 130 | P/P | 30 - 160 |
| 2173850 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 96.4 | 87.1 | P/P | 30 - 160 |
| 2173850 | N-Et perfluorooctanesulfonamidoAc acid | 80.8 | 76.7 | P/P | 30 - 160 |
| 2173850 | N-Me perfluorooctanesulfonamidoAc acid | 79.6 | 79.9 | P/P | 30 - 160 |
| 2173850 | Perfluorobutanesulfonic acid (PFBS) | 116 | 107 | P/P | 30 - 160 |
| 2173850 | Perfluorodecanesulfonic acid (PFDS) | 83.3 | 92.4 | P/P | 30 - 160 |
| 2173850 | Perfluorodecanoic acid (PFDA) | 99.6 | 95.3 | P/P | 30 - 160 |
| 2173850 | Perfluorododecanoic acid (PFDoA) | 73.7 | 85.5 | P/P | 30 - 160 |
| 2173850 | Perfluoroheptanesulfonic acid (PFHpS) | 113 | 103 | P/P | 30 - 160 |
| 2173850 | Perfluoroheptanoic acid (PFHpA) | 133 | 134 | P/P | 30 - 160 |
| 2173850 | Perfluorohexanesulfonic acid (PFHxS) | 93.8 | 88.1 | P/P | 30 - 160 |
| 2173850 | Perfluorohexanoic acid (PFHxA) | 110 | 107 | P/P | 30 - 160 |
| 2173850 | Perfluorononanesulfonic acid (PFNS) | 111 | 108 | P/P | 30 - 160 |
| 2173850 | Perfluorononanoic acid (PFNA) | 104 | 111 | P/P | 30 - 160 |
| 2173850 | Perfluorooctanesulfonic acid (PFOS) | 114 | 107 | P/P | 30 - 160 |
| 2173850 | Perfluorooctanoic acid (PFOA) | 105 | 107 | P/P | 30 - 160 |
| 2173850 | Perfluoropentanesulfonic acid (PFPeS) | 111 | 105 | P/P | 30 - 160 |
| 2173850 | Perfluoropentanoic acid (PFPeA) | 116 | 124 | P/P | 30 - 160 |
| 2173850 | Perfluorotetradecanoic acid (PFTeA) | 52.6 | 53.2 | P/P | 30 - 160 |
| 2173850 | Perfluorotridecanoic acid (PFTriA) | 65.1 | 79.4 | P/P | 30 - 160 |
| 2173850 | Perfluoroundecanoic acid (PFUnA) | 96.1 | 104 | P/P | 30 - 160 |

**Reference Method: EPA 8321B**
**Batch ID: P382768**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173890 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 153 | 156 | P/P | 30 - 160 |
| 2173890 | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 177 | 179 | F/F | 30 - 160 |
| 2173890 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 106 | 97.4 | P/P | 30 - 160 |
| 2173890 | N-Et perfluorooctanesulfonamidoAc acid | 88.1 | 98.1 | P/P | 30 - 160 |
| 2173890 | N-Me perfluorooctanesulfonamidoAc acid | 89.3 | 97.9 | P/P | 30 - 160 |
| 2173890 | Perfluorobutanesulfonic acid (PFBS) | 134 | 142 | P/P | 30 - 160 |
| 2173890 | Perfluorodecanesulfonic acid (PFDS) | 87.9 | 101 | P/P | 30 - 160 |
| 2173890 | Perfluorodecanoic acid (PFDA) | 109 | 99.5 | P/P | 30 - 160 |
| 2173890 | Perfluorododecanoic acid (PFDoA) | 79.7 | 97.1 | P/P | 30 - 160 |
| 2173890 | Perfluoroheptanesulfonic acid (PFHpS) | 121 | 129 | P/P | 30 - 160 |
| 2173890 | Perfluoroheptanoic acid (PFHpA) | 123 | 132 | P/P | 30 - 160 |
| 2173890 | Perfluorohexanesulfonic acid (PFHxS) | 122 | 135 | P/P | 30 - 160 |
| 2173890 | Perfluorohexanoic acid (PFHxA) | 132 | 132 | P/P | 30 - 160 |
| 2173890 | Perfluorononanesulfonic acid (PFNS) | 103 | 118 | P/P | 30 - 160 |
| 2173890 | Perfluorononanoic acid (PFNA) | 117 | 125 | P/P | 30 - 160 |
| 2173890 | Perfluorooctanesulfonic acid (PFOS) | 112 | 122 | P/P | 30 - 160 |
| 2173890 | Perfluorooctanoic acid (PFOA) | 102 | 114 | P/P | 30 - 160 |
| 2173890 | Perfluoropentanesulfonic acid (PFPeS) | 137 | 159 | P/P | 30 - 160 |
| 2173890 | Perfluoropentanoic acid (PFPeA) | 105 | 116 | P/P | 30 - 160 |
| 2173890 | Perfluorotetradecanoic acid (PFTeA) | 121 | 112 | P/P | 30 - 160 |
| 2173890 | Perfluorotridecanoic acid (PFTriA) | 63.4 | 78.2 | P/P | 30 - 160 |
| 2173890 | Perfluoroundecanoic acid (PFUnA) | 74.9 | 83.8 | P/P | 30 - 160 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 8321B**
**Batch ID: P382712**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173850 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 5.65 | Spike | P | 0 - 30 |
| 2173850 | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 0.697 | Spike | P | 0 - 30 |
| 2173850 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 10.1 | Spike | P | 0 - 30 |
| 2173850 | N-Et perfluorooctanesulfonamidoAc acid | 5.25 | Spike | P | 0 - 30 |
| 2173850 | N-Me perfluorooctanesulfonamidoAc acid | 0.260 | Spike | P | 0 - 30 |
| 2173850 | Perfluorobutanesulfonic acid (PFBS) | 8.01 | Spike | P | 0 - 30 |
| 2173850 | Perfluorodecanesulfonic acid (PFDS) | 10.4 | Spike | P | 0 - 30 |
| 2173850 | Perfluorodecanoic acid (PFDA) | 4.40 | Spike | P | 0 - 30 |
| 2173850 | Perfluorododecanoic acid (PFDoA) | 14.8 | Spike | P | 0 - 30 |
| 2173850 | Perfluoroheptanesulfonic acid (PFHpS) | 9.16 | Spike | P | 0 - 30 |
| 2173850 | Perfluoroheptanoic acid (PFHpA) | 0.445 | Spike | P | 0 - 30 |
| 2173850 | Perfluorohexanesulfonic acid (PFHxS) | 5.87 | Spike | P | 0 - 30 |
| 2173850 | Perfluorohexanoic acid (PFHxA) | 2.78 | Spike | P | 0 - 30 |
| 2173850 | Perfluorononanesulfonic acid (PFNS) | 3.09 | Spike | P | 0 - 30 |
| 2173850 | Perfluorononanoic acid (PFNA) | 7.00 | Spike | P | 0 - 30 |
| 2173850 | Perfluorooctanesulfonic acid (PFOS) | 4.95 | Spike | P | 0 - 30 |
| 2173850 | Perfluorooctanoic acid (PFOA) | 2.06 | Spike | P | 0 - 30 |
| 2173850 | Perfluoropentanesulfonic acid (PFPeS) | 5.62 | Spike | P | 0 - 30 |
| 2173850 | Perfluoropentanoic acid (PFPeA) | 7.14 | Spike | P | 0 - 30 |
| 2173850 | Perfluorotetradecanoic acid (PFTeA) | 1.11 | Spike | P | 0 - 30 |
| 2173850 | Perfluorotridecanoic acid (PFTriA) | 19.9 | Spike | P | 0 - 30 |
| 2173850 | Perfluoroundecanoic acid (PFUnA) | 7.69 | Spike | P | 0 - 30 |

**Reference Method: EPA 8321B**
**Batch ID: P382768**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173890 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 1.88 | Spike | P | 0 - 30 |
| 2173890 | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 0.912 | Spike | P | 0 - 30 |
| 2173890 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 6.24 | Spike | P | 0 - 30 |
| 2173890 | N-Et perfluorooctanesulfonamidoAc acid | 10.7 | Spike | P | 0 - 30 |
| 2173890 | N-Me perfluorooctanesulfonamidoAc acid | 9.13 | Spike | P | 0 - 30 |
| 2173890 | Perfluorobutanesulfonic acid (PFBS) | 5.33 | Spike | P | 0 - 30 |
| 2173890 | Perfluorodecanesulfonic acid (PFDS) | 13.8 | Spike | P | 0 - 30 |
| 2173890 | Perfluorodecanoic acid (PFDA) | 8.74 | Spike | P | 0 - 30 |
| 2173890 | Perfluorododecanoic acid (PFDoA) | 19.7 | Spike | P | 0 - 30 |
| 2173890 | Perfluoroheptanesulfonic acid (PFHpS) | 6.52 | Spike | P | 0 - 30 |
| 2173890 | Perfluoroheptanoic acid (PFHpA) | 7.36 | Spike | P | 0 - 30 |
| 2173890 | Perfluorohexanesulfonic acid (PFHxS) | 8.53 | Spike | P | 0 - 30 |
| 2173890 | Perfluorohexanoic acid (PFHxA) | 0.203 | Spike | P | 0 - 30 |
| 2173890 | Perfluorononanesulfonic acid (PFNS) | 13.6 | Spike | P | 0 - 30 |
| 2173890 | Perfluorononanoic acid (PFNA) | 6.69 | Spike | P | 0 - 30 |
| 2173890 | Perfluorooctanesulfonic acid (PFOS) | 7.58 | Spike | P | 0 - 30 |
| 2173890 | Perfluorooctanoic acid (PFOA) | 11.0 | Spike | P | 0 - 30 |
| 2173890 | Perfluoropentanesulfonic acid (PFPeS) | 15.2 | Spike | P | 0 - 30 |
| 2173890 | Perfluoropentanoic acid (PFPeA) | 9.45 | Spike | P | 0 - 30 |
| 2173890 | Perfluorotetradecanoic acid (PFTeA) | 7.73 | Spike | P | 0 - 30 |
| 2173890 | Perfluorotridecanoic acid (PFTriA) | 20.8 | Spike | P | 0 - 30 |
| 2173890 | Perfluoroundecanoic acid (PFUnA) | 11.3 | Spike | P | 0 - 30 |

# Quality Assurance Report
# Precision

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173856**
**Field Sample ID: DEPMW-21(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 103 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 103 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 86.4 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 118 | P | 30 - 160 |

**Lab Sample ID: 2173857**
**Field Sample ID: DEPMW-20(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 98.7 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 89.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 86.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 101 | P | 30 - 160 |

**Lab Sample ID: 2173858**
**Field Sample ID: DEPMW-2(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 104 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 104 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 54.9 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 42.4 | P | 30 - 160 |

**Lab Sample ID: 2173859**
**Field Sample ID: DEPMW-9(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 98.2 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 85.9 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 83.7 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 102 | P | 30 - 160 |

**Lab Sample ID: 2173860**
**Field Sample ID: DEPMW-7R(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 105 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 108 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 92.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 126 | P | 30 - 160 |

**Lab Sample ID: 2173861**
**Field Sample ID: DEPMW-8(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 108 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 107 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 84.2 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 116 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173862**
**Field Sample ID: DEPMW-3(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 95.7 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 85.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 81.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 93.4 | P | 30 - 160 |

**Lab Sample ID: 2173863**
**Field Sample ID: DEPMW-12(110-130)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 98.9 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 101 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 81.9 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 121 | P | 30 - 160 |

**Lab Sample ID: 2173864**
**Field Sample ID: DEPMW-4(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 95.1 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 90.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 79.1 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 97.5 | P | 30 - 160 |

**Lab Sample ID: 2173865**
**Field Sample ID: DEPMW-18(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 107 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 110 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 92.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 128 | P | 30 - 160 |

**Lab Sample ID: 2173866**
**Field Sample ID: DEPMW-1(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 109 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 111 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 90.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 127 | P | 30 - 160 |

**Lab Sample ID: 2173867**
**Field Sample ID: DEPMW-19(32-52)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 98.8 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 108 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 79.7 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 104 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173880**
**Field Sample ID: DEPMW-13(100-120)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 106 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 90.7 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 82.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 86.3 | P | 30 - 160 |

**Lab Sample ID: 2173881**
**Field Sample ID: DEPMW-17(27-47)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 99.7 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 93.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 80.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 107 | P | 30 - 160 |

**Lab Sample ID: 2173882**
**Field Sample ID: DEPMW-10(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 110 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 131 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 90.1 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 126 | P | 30 - 160 |

**Lab Sample ID: 2173883**
**Field Sample ID: DEPMW-14(110-130)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 111 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 93.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 92.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 127 | P | 30 - 160 |

**Lab Sample ID: 2173884**
**Field Sample ID: DEPMW-5(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 96.9 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 95.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 79.0 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 104 | P | 30 - 160 |

**Lab Sample ID: 2173885**
**Field Sample ID: DEPMW-16(36-56)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 118 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 81.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 119 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 127 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173886**
**Field Sample ID: DEPMW-15(110-130)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 101 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 103 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 81.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 109 | P | 30 - 160 |

**Lab Sample ID: 2173887**
**Field Sample ID: DEPMW-11(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 119 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 72.5 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 121 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 103 | P | 30 - 160 |

**Lab Sample ID: 2173888**
**Field Sample ID: DEPMW-23(32-52)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 102 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 81.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 103 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 107 | P | 30 - 160 |

**Lab Sample ID: 2173889**
**Field Sample ID: DEPMW-6(2-12)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 109 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 88.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 117 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 107 | P | 30 - 160 |

**Lab Sample ID: 2173890**
**Field Sample ID: DEPMW-22(40-60)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 114 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 94.1 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 117 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 122 | P | 30 - 160 |

**Lab Sample ID: 2173891**
**Field Sample ID: DUP-7 (100-120)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 99.2 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 109 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 82.6 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 117 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173892**
**Field Sample ID: DUP-8 (36-56)**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 110 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 76.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 110 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 121 | P | 30 - 160 |

**Lab Sample ID: 2173893**
**Field Sample ID: FRB 7**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 112 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 103 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 116 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 123 | P | 30 - 160 |

**Lab Sample ID: 2173894**
**Field Sample ID: FRB 8**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 111 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 98.3 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 115 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 115 | P | 30 - 160 |

**Lab Sample ID: 2173895**
**Field Sample ID: FRB 9**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 107 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 89.9 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 108 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 115 | P | 30 - 160 |

**Lab Sample ID: 2173896**
**Field Sample ID: FRB 10**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 116 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 83.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 116 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 110 | P | 30 - 160 |

**Lab Sample ID: 2173897**
**Field Sample ID: EQB 18**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 117 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 83.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 116 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 103 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173898**
**Field Sample ID: EQB 19**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 112 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 72.0 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 119 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 99.1 | P | 30 - 160 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8321B**

**Run ID: A99187**

**Included Lab Sample IDs: 2173856, 2173857, 2173858, 2173859, 2173860, 2173861, 2173862, 2173863, 2173864, 2173865, 2173866, 2173867, 2173880, 2173881, 2173882, 2173883, 2173884, 2173886, 2173891**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 104 | 104 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 104 | 108 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 108 | 101 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 111 | 70.4 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 70.4 | 71.6 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 75.6 | 82.5 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 77.8 | 81.3 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 82.5 | 77.8 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 80.0 | 80.9 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 80.9 | 83.0 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 82.1 | 80.0 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 84.4 | 87.6 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 84.6 | 84.4 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 87.6 | 86.7 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 81.2 | 83.4 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 83.4 | 84.8 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 84.8 | 81.1 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 100 | 103 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 103 | 104 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 104 | 105 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 94.1 | 93.1 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 100 | 102 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 101 | 100 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 102 | 103 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 82.4 | 95.3 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 95.3 | 97.7 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 97.7 | 88.6 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 113 | 89.5 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 89.5 | 116 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 89.6 | 113 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 102 | 104 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 104 | 105 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 93.3 | 103 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 99.9 | 102 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 113 | 122 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 121 | 113 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 95.8 | 121 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 99.2 | 127 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 84.4 | 85.8 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 85.8 | 86.0 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 86.0 | 88.7 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 88.4 | 85.9 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 99.1 | 88.4 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 101 | 91.9 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 68.4 | 97.0 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 84.3 | 101 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 91.9 | 99.4 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 110 | 115 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 115 | 117 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 117 | 111 | P/P | 60 - 160 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8321B**
**Run ID: A99187**
**Included Lab Sample IDs: 2173856, 2173857, 2173858, 2173859, 2173860, 2173861, 2173862, 2173863, 2173864, 2173865, 2173866, 2173867, 2173880, 2173881, 2173882, 2173883, 2173884, 2173886, 2173891**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Perfluorononanoic acid (PFNA) | 74.3 | 97.0 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 82.1 | 112 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 97.0 | 82.1 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 101 | 102 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 104 | 99.4 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 105 | 101 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 98.9 | 105 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 82.8 | 92.5 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 88.3 | 105 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 90.0 | 108 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 92.5 | 90.0 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 102 | 104 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 104 | 105 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 105 | 103 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 105 | 89.6 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 71.5 | 109 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 89.6 | 114 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 90.2 | 98.5 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 98.5 | 89.6 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 68.6 | 84.1 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 72.3 | 78.3 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 78.3 | 68.6 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 72.2 | 74.6 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 74.6 | 94.9 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 94.9 | 93.4 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 115 | 129 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 95.0 | 115 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 96.9 | 95.0 | P/P | 60 - 160 |

**Reference Method: EPA 8321B**
**Run ID: A99210**
**Included Lab Sample IDs: 2173885, 2173887, 2173888, 2173889, 2173890, 2173892, 2173893, 2173894, 2173895, 2173896, 2173897, 2173898**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 106 | 108 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 108 | 105 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 108 | 108 | P/P | 60 - 160 |
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 116 | 106 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 114 | 122 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 120 | 127 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 122 | 120 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 87.6 | 95.3 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 90.6 | 87.6 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 95.3 | 90.4 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 105 | 102 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 108 | 105 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 99.8 | 108 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 92.5 | 93.9 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 93.9 | 95.2 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 95.2 | 96.1 | P/P | 60 - 160 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8321B**
**Run ID: A99210**
**Included Lab Sample IDs: 2173885, 2173887, 2173888, 2173889, 2173890, 2173892, 2173893, 2173894, 2173895, 2173896, 2173897, 2173898**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Perfluorobutanesulfonic acid (PFBS) | 120 | 122 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 122 | 129 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 129 | 120 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 120 | 127 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 123 | 120 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 127 | 126 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 83.7 | 90.1 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 85.6 | 89.6 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 89.6 | 83.7 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 107 | 89.8 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 109 | 107 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 89.8 | 110 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 106 | 112 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 110 | 106 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 112 | 110 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 102 | 104 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 104 | 127 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 112 | 102 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 111 | 111 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 111 | 117 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 117 | 116 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 87.6 | 105 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 89.3 | 100 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 100 | 87.6 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 114 | 116 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 116 | 117 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 117 | 118 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 73.3 | 113 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 86.0 | 98.5 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 98.5 | 73.3 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 104 | 111 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 107 | 104 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 111 | 107 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 74.5 | 93.0 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 87.7 | 74.5 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 89.1 | 87.7 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 120 | 137 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 126 | 123 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 137 | 126 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 63.1 | 87.8 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 78.7 | 82.1 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 82.1 | 63.1 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 114 | 122 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 122 | 141 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 141 | 132 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 69.4 | 89.5 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 86.1 | 94.7 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 94.7 | 69.4 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 83.6 | 95.2 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 83.9 | 110 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 95.2 | 83.9 | P/P | 60 - 160 |

# Quality Assurance Report
# Calibration Verification

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | MS % Recovery | | Precision | | |
|---|---|---|---|---|---|---|---|
| | | | | | LCS | SMP | MS |
| EPA 8321B | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 134 | 143 | 135 | | | 5.65 |
| | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 129 | 153 | 156 | | | 1.88 |
| | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 105 | 129 | 130 | | | 0.697 |
| | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 120 | 177 | 179 | | | 0.912 |
| | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 107 | 96.4 | 87.1 | | | 10.1 |
| | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 82.7 | 106 | 97.4 | | | 6.24 |
| | N-Et perfluorooctanesulfonamidoAc acid | 83.4 | 80.8 | 76.7 | | | 5.25 |
| | N-Et perfluorooctanesulfonamidoAc acid | 65.8 | 88.1 | 98.1 | | | 10.7 |
| | N-Me perfluorooctanesulfonamidoAc acid | 80.4 | 79.6 | 79.9 | | | 0.260 |
| | N-Me perfluorooctanesulfonamidoAc acid | 83.0 | 89.3 | 97.9 | | | 9.13 |
| | Perfluorobutanesulfonic acid (PFBS) | 113 | 116 | 107 | | | 8.01 |
| | Perfluorobutanesulfonic acid (PFBS) | 125 | 134 | 142 | | | 5.33 |
| | Perfluorodecanesulfonic acid (PFDS) | 94.9 | 83.3 | 92.4 | | | 10.4 |
| | Perfluorodecanesulfonic acid (PFDS) | 116 | 87.9 | 101 | | | 13.8 |
| | Perfluorodecanoic acid (PFDA) | 103 | 99.6 | 95.3 | | | 4.40 |
| | Perfluorodecanoic acid (PFDA) | 109 | 109 | 99.5 | | | 8.74 |
| | Perfluorododecanoic acid (PFDoA) | 99.3 | 73.7 | 85.5 | | | 14.8 |
| | Perfluorododecanoic acid (PFDoA) | 114 | 79.7 | 97.1 | | | 19.7 |
| | Perfluoroheptanesulfonic acid (PFHpS) | 114 | 113 | 103 | | | 9.16 |
| | Perfluoroheptanesulfonic acid (PFHpS) | 118 | 121 | 129 | | | 6.52 |
| | Perfluoroheptanoic acid (PFHpA) | 125 | 133 | 134 | | | 0.445 |
| | Perfluoroheptanoic acid (PFHpA) | 135 | 123 | 132 | | | 7.36 |
| | Perfluorohexanesulfonic acid (PFHxS) | 93.7 | 93.8 | 88.1 | | | 5.87 |
| | Perfluorohexanesulfonic acid (PFHxS) | 120 | 122 | 135 | | | 8.53 |
| | Perfluorohexanoic acid (PFHxA) | 98.4 | 110 | 107 | | | 2.78 |
| | Perfluorohexanoic acid (PFHxA) | 113 | 132 | 132 | | | 0.203 |
| | Perfluorononanesulfonic acid (PFNS) | 124 | 111 | 108 | | | 3.09 |
| | Perfluorononanesulfonic acid (PFNS) | 119 | 103 | 118 | | | 13.6 |
| | Perfluorononanoic acid (PFNA) | 96.4 | 104 | 111 | | | 7.00 |
| | Perfluorononanoic acid (PFNA) | 88.9 | 117 | 125 | | | 6.69 |
| | Perfluorooctanesulfonic acid (PFOS) | 113 | 114 | 107 | | | 4.95 |
| | Perfluorooctanesulfonic acid (PFOS) | 111 | 112 | 122 | | | 7.58 |
| | Perfluorooctanoic acid (PFOA) | 98.2 | 105 | 107 | | | 2.06 |
| | Perfluorooctanoic acid (PFOA) | 107 | 102 | 114 | | | 11.0 |
| | Perfluoropentanesulfonic acid (PFPeS) | 110 | 111 | 105 | | | 5.62 |

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | MS % Recovery | | Precision | | |
|---|---|---|---|---|---|---|---|
| | | | | | LCS | SMP | MS |
| EPA 8321B | Perfluoropentanesulfonic acid (PFPeS) | 129 | 137 | 159 | | | 15.2 |
| | Perfluoropentanoic acid (PFPeA) | 123 | 116 | 124 | | | 7.14 |
| | Perfluoropentanoic acid (PFPeA) | 112 | 105 | 116 | | | 9.45 |
| | Perfluorotetradecanoic acid (PFTeA) | 52.7 | 53.2 | 52.6 | | | 1.11 |
| | Perfluorotetradecanoic acid (PFTeA) | 111 | 121 | 112 | | | 7.73 |
| | Perfluorotridecanoic acid (PFTriA) | 68.3 | 65.1 | 79.4 | | | 19.9 |
| | Perfluorotridecanoic acid (PFTriA) | 86.4 | 63.4 | 78.2 | | | 20.8 |
| | Perfluoroundecanoic acid (PFUnA) | 100 | 96.1 | 104 | | | 7.69 |
| | Perfluoroundecanoic acid (PFUnA) | 97.9 | 74.9 | 83.8 | | | 11.3 |

# Reference Method Descriptions

| Method | Description | Associated Samples |
|---|---|---|
| EPA 8321B | Perfluorinated alkyl substances in water matrices by HPLC/MS/MS | 2173856, 2173857, 2173858, 2173859, 2173860, 2173861, 2173862, 2173863, 2173864, 2173865, 2173866, 2173867, 2173880, 2173881, 2173882, 2173883, 2173884, 2173885, 2173886, 2173887, 2173888, 2173889, 2173890, 2173891, 2173892, 2173893, 2173894, 2173895, 2173896, 2173897, 2173898 |

# Preparation and Analysis Log

| Ref. Method | Received Date | Prep Date/Time | Prepared By | Analysis Date/Time | Analyzed By | Associated Samples |
|---|---|---|---|---|---|---|
| EPA 8321B | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 16:50 | Pramila Ghimire | 2173856 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 17:09 | Pramila Ghimire | 2173857 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 17:29 | Pramila Ghimire | 2173858 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 18:08 | Pramila Ghimire | 2173859 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 18:28 | Pramila Ghimire | 2173860 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 18:48 | Pramila Ghimire | 2173861 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 19:07 | Pramila Ghimire | 2173862 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 19:27 | Pramila Ghimire | 2173863 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 19:47 | Pramila Ghimire | 2173864 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 20:06 | Pramila Ghimire | 2173865 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 20:26 | Pramila Ghimire | 2173866 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 21:05 | Pramila Ghimire | 2173867 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 21:25 | Pramila Ghimire | 2173880 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 21:44 | Pramila Ghimire | 2173891 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 22:04 | Pramila Ghimire | 2173881 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 22:24 | Pramila Ghimire | 2173882 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 22:43 | Pramila Ghimire | 2173883 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 23:03 | Pramila Ghimire | 2173884 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 23:23 | Pramila Ghimire | 2173886 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/04/2020 10:51 | Pramila Ghimire | 2173858 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/04/2020 11:11 | Pramila Ghimire | 2173859 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/04/2020 11:50 | Pramila Ghimire | 2173884 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/04/2020 13:22 | Pramila Ghimire | 2173858 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/04/2020 15:39 | Pramila Ghimire | 2173858 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/04/2020 19:31 | Pramila Ghimire | 2173890 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/04/2020 19:51 | Pramila Ghimire | 2173885 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/04/2020 20:30 | Pramila Ghimire | 2173887 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/04/2020 20:49 | Pramila Ghimire | 2173888 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/04/2020 21:09 | Pramila Ghimire | 2173889 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/04/2020 21:29 | Pramila Ghimire | 2173892 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/04/2020 21:48 | Pramila Ghimire | 2173893 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/04/2020 22:08 | Pramila Ghimire | 2173894 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/04/2020 22:28 | Pramila Ghimire | 2173895 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/04/2020 23:07 | Pramila Ghimire | 2173896 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/04/2020 23:27 | Pramila Ghimire | 2173897 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/04/2020 23:46 | Pramila Ghimire | 2173898 |
| | 05/29/2020 | 06/04/2020 12:00 | Hoor Shaik | 06/05/2020 03:42 | Pramila Ghimire | 2173890 |

# Chemical Analysis Report

**SIS-2020-05-29-01**

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **HCCC IDW**
Request ID: **RQ-2020-05-18-33**
Customer: **SIS**
Project ID: **FC-HILLSCC**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Road
Twin Towers Bldg. MS# 4515
Tallahassee, FL 32399
Attn: Jeff Newton

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 25-JUN-2020 17:08

**NON-CONFORMANCE REPORT INCLUDED**

## Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Pesticides and Priority Organic Pollutants.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to $1.3 \times 10^3$ or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

**Sample Location: Hillsborough Community College (HCC)** **Collection Date/Time: 05/27/2020 18:12**

**Field ID: IDW-Water** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173847 | EPA 8270E | Acenaphthene | 0.25 | UY | ug/L | P382654 | |
| | | Acenaphthylene | 0.25 | UY | ug/L | P382654 | |
| | | Acetophenone | 2.0 | UY | ug/L | P382654 | |
| | | 2-Acetylaminofluorene | 10 | UY | ug/L | P382654 | |
| | | 4-Aminobiphenyl | 40 | UY | ug/L | P382654 | |
| | | Aniline | 10 | UY | ug/L | P382654 | |
| | | Anthracene | 0.50 | UY | ug/L | P382654 | |
| | | Azobenzene/1,2-Diphenylhydrazine** | 0.50 | UY | ug/L | P382654 | |
| | | Benzidine | 100 | UY | ug/L | P382654 | |
| | | Benzo(a)anthracene | 0.25 | UY | ug/L | P382654 | |
| | | Benzo(a)pyrene | 0.25 | UY | ug/L | P382654 | |
| | | Benzo(b)fluoranthene | 0.25 | UY | ug/L | P382654 | |
| | | Benzo(k)fluoranthene | 0.25 | UY | ug/L | P382654 | |
| | | Benzo(g,h,i)perylene | 0.25 | UY | ug/L | P382654 | |
| | | Benzyl alcohol | 1.0 | UY | ug/L | P382654 | |
| | | Bis(2-chloroethoxy)methane | 0.50 | UY | ug/L | P382654 | |
| | | Bis(2-chloroethyl)ether | 0.50 | UY | ug/L | P382654 | |
| | | Bis(2-chloroisopropyl)ether | 0.50 | UY | ug/L | P382654 | |
| | | Bis(2-ethylhexyl)phthalate | 50 | UY | ug/L | P382654 | |
| | | Butyl benzyl phthalate | 10 | UY | ug/L | P382654 | |
| | | 4-Bromophenyl phenyl ether | 0.50 | UY | ug/L | P382654 | |
| | | 2-Chloronaphthalene | 0.50 | UY | ug/L | P382654 | |
| | | 4-Chlorophenyl phenyl ether | 0.50 | UY | ug/L | P382654 | |
| | | Carbazole | 0.50 | UY | ug/L | P382654 | |
| | | Chrysene | 0.25 | UY | ug/L | P382654 | |
| | | m,p-Cresols | 0.50 | UY | ug/L | P382654 | |
| | | o-Cresol | 0.50 | UY | ug/L | P382654 | |
| | | Di-n-butyl phthalate | 20 | UY | ug/L | P382654 | |
| | | Di-n-octyl phthalate | 0.50 | UY | ug/L | P382654 | |
| | | Dibenzo(a,h)anthracene | 0.25 | UY | ug/L | P382654 | |
| | | Dibenzofuran | 0.50 | UY | ug/L | P382654 | |
| | | 3,3'-Dichlorobenzidine | 100 | UY | ug/L | P382654 | |
| | | Diethyl phthalate | 20 | UY | ug/L | P382654 | |
| | | Dimethyl phthalate | 0.50 | UY | ug/L | P382654 | |
| | | Dimethylaminoazobenzene | 0.50 | UY | ug/L | P382654 | |
| | | 7,12-Dimethylbenz(a)anthracene | 1.0 | UY | ug/L | P382654 | |
| | | 1,3-Dinitrobenzene | 1.0 | UY | ug/L | P382654 | |
| | | 2,4-Dinitrotoluene | 0.50 | UY | ug/L | P382654 | |
| | | 2,6-Dinitrotoluene | 0.50 | UY | ug/L | P382654 | |
| | | Dinoseb** | 40 | UY | ug/L | P382654 | |
| | | Ethyl methanesulfonate | 10 | UY | ug/L | P382654 | |
| | | Fluoranthene | 0.50 | UY | ug/L | P382654 | |
| | | Fluorene | 0.25 | UY | ug/L | P382654 | |
| | | Hexachlorobenzene | 0.50 | UY | ug/L | P382654 | |

**Field ID: IDW-Water** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173847 | EPA 8270E | Hexachlorobutadiene | 0.50 | UY | ug/L | P382654 | |
| | | Hexachlorocyclopentadiene | 0.50 | UY | ug/L | P382654 | |
| | | Hexachloroethane | 0.50 | UY | ug/L | P382654 | |
| | | Hexachloropropene | 0.50 | UY | ug/L | P382654 | |
| | | Indeno(1,2,3-cd)pyrene | 0.25 | UY | ug/L | P382654 | |
| | | Isophorone | 0.50 | UY | ug/L | P382654 | |
| | | Isosafrole | 0.50 | UY | ug/L | P382654 | |
| | | 3-Methylcholanthrene | 1.0 | UY | ug/L | P382654 | |
| | | 2-Methylnaphthalene | 1.0 | UY | ug/L | P382654 | |
| | | Naphthalene | 1.0 | UY | ug/L | P382654 | |
| | | 1-Naphthylamine | 100 | UY | ug/L | P382654 | |
| | | 2-Naphthylamine | 100 | UY | ug/L | P382654 | |
| | | 2-Nitroaniline | 0.50 | UY | ug/L | P382654 | |
| | | Nitrobenzene | 0.50 | UY | ug/L | P382654 | |
| | | 5-Nitro-o-toluidine | 1.0 | UY | ug/L | P382654 | |
| | | N-Nitrosodi-n-butylamine | 0.50 | UY | ug/L | P382654 | |
| | | N-Nitrosodiethylamine | 10 | UY | ug/L | P382654 | |
| | | N-Nitrosodimethylamine | 20 | UY | ug/L | P382654 | |
| | | N-Nitrosodi-n-propylamine | 0.50 | UY | ug/L | P382654 | |
| | | N-Nitrosomethylethylamine | 20 | UY | ug/L | P382654 | |
| | | N-Nitrosomorpholine | 0.50 | UY | ug/L | P382654 | |
| | | N-Nitrosopiperidine | 0.50 | UY | ug/L | P382654 | |
| | | N-Nitrosopyrrolidine | 0.50 | UY | ug/L | P382654 | |
| | | Pentachlorobenzene | 0.50 | UY | ug/L | P382654 | |
| | | Pentachloroethane** | 0.50 | UY | ug/L | P382654 | |
| | | Pentachloronitrobenzene | 0.50 | UY | ug/L | P382654 | |
| | | Phenacetin | 10 | UY | ug/L | P382654 | |
| | | Phenanthrene | 1.0 | UY | ug/L | P382654 | |
| | | 2-Picoline | 10 | UY | ug/L | P382654 | |
| | | Pyrene | 1.0 | UY | ug/L | P382654 | |
| | | Pyridine | 40 | UY | ug/L | P382654 | |
| | | Safrole | 0.50 | UY | ug/L | P382654 | |
| | | 1,2,4,5-Tetrachlorobenzene | 0.50 | UY | ug/L | P382654 | |
| | | o-Toluidine | 1.0 | UY | ug/L | P382654 | |
| | | 1,2,4-Trichlorobenzene | 0.50 | UY | ug/L | P382654 | |
| | | 1,3,5-Trinitrobenzene | 1.0 | UY | ug/L | P382654 | |
| | | 4-Chloro-3-methylphenol | 0.50 | UY | ug/L | P382654 | |
| | | 2-Chlorophenol | 0.50 | UY | ug/L | P382654 | |
| | | 2,4-Dichlorophenol | 0.50 | UY | ug/L | P382654 | |
| | | 2,6-Dichlorophenol | 0.50 | UY | ug/L | P382654 | |
| | | 2,4-Dimethylphenol | 0.50 | UY | ug/L | P382654 | |
| | | 2,4-Dinitrophenol | 100 | UY | ug/L | P382654 | |
| | | 2-Methyl-4,6-dinitrophenol | 30 | UY | ug/L | P382654 | |
| | | 2-Nitrophenol | 0.50 | UY | ug/L | P382654 | |
| | | 4-Nitrophenol | 100 | UY | ug/L | P382654 | |

**Field ID: IDW-Water** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173847 | EPA 8270E | Pentachlorophenol | 5.0 | UY | ug/L | P382654 | |
| | | Phenol | 0.50 | UY | ug/L | P382654 | |
| | | 2,3,4,6-Tetrachlorophenol | 1.0 | UY | ug/L | P382654 | |
| | | 2,4,5-Trichlorophenol | 0.50 | UY | ug/L | P382654 | |
| | | 2,4,6-Trichlorophenol | 0.50 | UY | ug/L | P382654 | |
| | | 1-Methylnaphthalene | 1.0 | UY | ug/L | P382654 | |
| | | N-Nitrosodiphenylamine/ Diphenylamine | 1.0 | UY | ug/L | P382654 | |
| 2173848 | EPA 7473 | Mercury** | 0.10 | U | ug/L | P382894 | |
| 2173849 | EPA 6020A | Arsenic | 1.21 | | ug/L | P382825 | |
| | | Barium | 49.1 | | ug/L | P382825 | |
| | | Cadmium | 0.07 | I | ug/L | P382825 | |
| | | Chromium | 1.7 | | ug/L | P382825 | |
| | | Lead | 3.46 | | ug/L | P382825 | |
| | | Selenium | 0.2 | U | ug/L | P382825 | |
| | | Silver | 0.010 | U | ug/L | P382825 | |
| 2173850 | EPA 8321B | Perfluorooctanoic acid (PFOA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 5.6 | IY | ng/L | P382712 | |
| | | Perfluorobutanesulfonic acid (PFBS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanoic acid (PFDA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorododecanoic acid (PFDoA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.80 | IY | ng/L | P382712 | |
| | | Perfluorohexanoic acid (PFHxA)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluorononanoic acid (PFNA)** | 1.0 | UY | ng/L | P382712 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 1.0 | UY | ng/L | P382712 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluoropentanoic acid (PFPeA)** | 4.0 | UY | ng/L | P382712 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.40 | UY | ng/L | P382712 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 4.0 | UY | ng/L | P382712 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 2.0 | UY | ng/L | P382712 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.40 | UY | ng/L | P382712 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.40 | UY | ng/L | P382712 | |
| 2173851 | EPA 8260D | Benzene | 0.20 | UY | ug/L | P382695 | |
| | | Bromodichloromethane | 0.20 | UY | ug/L | P382695 | |
| | | Bromoform | 0.50 | UY | ug/L | P382695 | |
| | | Bromomethane | 0.50 | UY | ug/L | P382695 | |
| | | 2-Butanone | 3.0 | UY | ug/L | P382695 | |

**Field ID: IDW-Water** Matrix: W-GROUND

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173851 | EPA 8260D | Carbon tetrachloride | 0.20 | UY | ug/L | P382695 | |
| | | Chlorobenzene | 0.20 | UY | ug/L | P382695 | |
| | | Chloroethane | 0.50 | UY | ug/L | P382695 | |
| | | Chloroform | 0.71 | I Y | ug/L | P382695 | |
| | | Chloromethane | 0.50 | UY | ug/L | P382695 | |
| | | Dibromochloromethane | 0.20 | UY | ug/L | P382695 | |
| | | 1,2-Dichlorobenzene | 0.50 | UY | ug/L | P382695 | |
| | | 1,3-Dichlorobenzene | 0.50 | UY | ug/L | P382695 | |
| | | 1,4-Dichlorobenzene | 0.50 | UY | ug/L | P382695 | |
| | | 1,1-Dichloroethane | 0.20 | UY | ug/L | P382695 | |
| | | 1,2-Dichloroethane | 0.20 | UY | ug/L | P382695 | |
| | | 1,1-Dichloroethene | 0.20 | UY | ug/L | P382695 | |
| | | cis-1,2-Dichloroethene | 0.20 | UY | ug/L | P382695 | |
| | | trans-1,2-Dichloroethene | 0.20 | UY | ug/L | P382695 | |
| | | 1,2-Dichloropropane | 0.20 | UY | ug/L | P382695 | |
| | | cis-1,3-Dichloropropene | 0.50 | UY | ug/L | P382695 | |
| | | trans-1,3-Dichloropropene | 0.50 | UY | ug/L | P382695 | |
| | | Ethylbenzene | 0.20 | UY | ug/L | P382695 | |
| | | Methyl-t-butyl ether | 0.20 | UY | ug/L | P382695 | |
| | | Methylene chloride | 1.0 | UY | ug/L | P382695 | |
| | | 1,1,2,2-Tetrachloroethane | 0.20 | UY | ug/L | P382695 | |
| | | Tetrachloroethene | 0.20 | UY | ug/L | P382695 | |
| | | Toluene | 16 | Y | ug/L | P382695 | |
| | | 1,1,1-Trichloroethane | 0.20 | UY | ug/L | P382695 | |
| | | 1,1,2-Trichloroethane | 0.20 | UY | ug/L | P382695 | |
| | | Trichloroethene | 0.20 | UY | ug/L | P382695 | |
| | | Trichlorofluoromethane | 0.20 | UY | ug/L | P382695 | |
| | | Vinyl chloride | 0.20 | UY | ug/L | P382695 | |
| | | o-Xylene | 0.50 | UY | ug/L | P382695 | |
| | | m,p-Xylene | 0.74 | I Y | ug/L | P382695 | |

Ref. Method and Comment:
EPA 8270E: MDL elevated due to matrix interferences. Y - Sample was received with inadequate sample preservation; see NCR report.
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.
EPA 8260D: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College (HCC)** **Collection Date/Time: 05/28/2020 10:40**

**Field ID: IDW-Soil** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173842 | EPA 8270E | Acenaphthene | 7.9 | UY | ug/kg | P382655 | |
| | | Acenaphthylene | 7.9 | UY | ug/kg | P382655 | |
| | | Anthracene | 7.9 | UY | ug/kg | P382655 | |
| | | Azobenzene/1,2-Diphenylhydrazine | 71 | UY | ug/kg | P382655 | |
| | | Benzidine | 1.5E+03 | UYJ | ug/kg | P382655 | MS |
| | | Benzo(a)anthracene | 7.9 | UY | ug/kg | P382655 | |
| | | Benzo(a)pyrene | 7.9 | UY | ug/kg | P382655 | |
| | | Benzo(b)fluoranthene | 7.9 | UY | ug/kg | P382655 | |
| | | Benzo(k)fluoranthene | 7.9 | UY | ug/kg | P382655 | |
| | | Benzo(g,h,i)perylene | 7.9 | UY | ug/kg | P382655 | |
| | | Bis(2-chloroethoxy)methane | 71 | UY | ug/kg | P382655 | |
| | | Bis(2-chloroethyl)ether | 71 | UY | ug/kg | P382655 | |
| | | Bis(2-chloroisopropyl)ether | 71 | UY | ug/kg | P382655 | |
| | | Bis(2-ethylhexyl)phthalate | 430 | UY | ug/kg | P382655 | |
| | | Butyl benzyl phthalate | 71 | UY | ug/kg | P382655 | |
| | | 4-Bromophenyl phenyl ether | 71 | UY | ug/kg | P382655 | |
| | | 2-Chloronaphthalene | 71 | UY | ug/kg | P382655 | |
| | | 4-Chlorophenyl phenyl ether | 71 | UY | ug/kg | P382655 | |
| | | Chrysene | 7.9 | UY | ug/kg | P382655 | |
| | | Di-n-butyl phthalate | 430 | UY | ug/kg | P382655 | |
| | | Di-n-octyl phthalate | 71 | UY | ug/kg | P382655 | |
| | | Dibenzo(a,h)anthracene | 7.9 | UY | ug/kg | P382655 | |
| | | 3,3'-Dichlorobenzidine | 4.3E+03 | UY | ug/kg | P382655 | |
| | | Diethyl phthalate | 71 | UY | ug/kg | P382655 | |
| | | Dimethyl phthalate | 71 | UY | ug/kg | P382655 | |
| | | 2,4-Dinitrotoluene | 71 | UY | ug/kg | P382655 | |
| | | 2,6-Dinitrotoluene | 71 | UY | ug/kg | P382655 | |
| | | Fluoranthene | 7.9 | UY | ug/kg | P382655 | |
| | | Fluorene | 7.9 | UY | ug/kg | P382655 | |
| | | Hexachlorobenzene | 71 | UY | ug/kg | P382655 | |
| | | Hexachlorobutadiene | 210 | UY | ug/kg | P382655 | |
| | | Hexachlorocyclopentadiene | 71 | UY | ug/kg | P382655 | |
| | | Hexachloroethane | 210 | UY | ug/kg | P382655 | |
| | | Indeno(1,2,3-cd)pyrene | 7.9 | UY | ug/kg | P382655 | |
| | | Isophorone | 71 | UY | ug/kg | P382655 | |
| | | Naphthalene | 7.9 | UY | ug/kg | P382655 | |
| | | Nitrobenzene | 71 | UY | ug/kg | P382655 | |
| | | N-Nitrosodimethylamine | 430 | UY | ug/kg | P382655 | |
| | | N-Nitrosodi-n-propylamine | 71 | UY | ug/kg | P382655 | |
| | | Phenanthrene | 7.9 | UY | ug/kg | P382655 | |
| | | Pyrene | 7.9 | UY | ug/kg | P382655 | |
| | | 1,2,4-Trichlorobenzene | 210 | UY | ug/kg | P382655 | |
| | | 4-Chloro-3-methylphenol | 71 | UY | ug/kg | P382655 | |
| | | 2-Chlorophenol | 210 | UY | ug/kg | P382655 | |

**Field ID: IDW-Soil** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173842 | EPA 8270E | 2,4-Dichlorophenol | 71 | UY | ug/kg | P382655 | |
| | | 2,4-Dimethylphenol | 430 | UY | ug/kg | P382655 | |
| | | 2,4-Dinitrophenol | 430 | UY | ug/kg | P382655 | |
| | | 2-Methyl-4,6-dinitrophenol | 71 | UY | ug/kg | P382655 | |
| | | 2-Nitrophenol | 71 | UY | ug/kg | P382655 | |
| | | 4-Nitrophenol | 71 | UY | ug/kg | P382655 | |
| | | Pentachlorophenol | 71 | UY | ug/kg | P382655 | |
| | | Phenol | 71 | UY | ug/kg | P382655 | |
| | | 2,4,6-Trichlorophenol | 71 | UY | ug/kg | P382655 | |
| | | N-Nitrosodiphenylamine/ Diphenylamine | 71 | UY | ug/kg | P382655 | |
| 2173843 | EPA 7473 | Mercury | 0.0023 | Y | mg/Kg | P383122 | |
| 2173844 | EPA 6020A | Arsenic | 0.257 | | mg/Kg | P383389 | |
| | | Barium | 3.48 | | mg/Kg | P383389 | |
| | | Cadmium | 0.040 | | mg/Kg | P383389 | |
| | | Chromium | 4.04 | | mg/Kg | P383389 | |
| | | Lead | 0.93 | | mg/Kg | P383389 | |
| | | Selenium | 0.099 | U | mg/Kg | P383389 | |
| | | Silver | 0.012 | I | mg/Kg | P383389 | |
| 2173845 | EPA 8321B | Perfluorobutanesulfonic acid (PFBS)** | 0.13 | UY | ug/Kg | P383141 | |
| | | Perfluorodecanoic acid (PFDA)** | 0.13 | UY | ug/Kg | P383141 | |
| | | Perfluorododecanoic acid (PFDoA)** | 0.13 | UY | ug/Kg | P383141 | |
| | | Perfluoroheptanoic acid (PFHpA)** | 0.26 | UY | ug/Kg | P383141 | |
| | | Perfluorohexanesulfonic acid (PFHxS)** | 0.13 | UY | ug/Kg | P383141 | |
| | | Perfluorohexanoic acid (PFHxA)** | 0.26 | UY | ug/Kg | P383141 | |
| | | Perfluorononanoic acid (PFNA)** | 0.13 | UY | ug/Kg | P383141 | |
| | | Perfluorooctanesulfonic acid (PFOS)** | 0.26 | UY | ug/Kg | P383141 | |
| | | Perfluorooctanoic acid (PFOA)** | 0.13 | UY | ug/Kg | P383141 | |
| | | Perfluorotetradecanoic acid (PFTeA)** | 0.13 | UY | ug/Kg | P383141 | |
| | | Perfluorotridecanoic acid (PFTriA)** | 0.13 | UY | ug/Kg | P383141 | |
| | | Perfluoroundecanoic acid (PFUnA)** | 0.13 | UY | ug/Kg | P383141 | |
| | | N-Me perfluorooctanesulfonamidoAc acid** | 0.13 | UY | ug/Kg | P383141 | |
| | | N-Et perfluorooctanesulfonamidoAc acid** | 0.13 | UY | ug/Kg | P383141 | |
| | | Perfluoropentanoic acid (PFPeA)** | 0.51 | UY | ug/Kg | P383141 | |
| | | 4:2 Fluorotelomer sulfonate (4:2 FTS)** | 0.26 | UY | ug/Kg | P383141 | |
| | | Perfluoropentanesulfonic acid (PFPeS)** | 0.13 | UY | ug/Kg | P383141 | |
| | | 6:2 Fluorotelomer sulfonate (6:2 FTS)** | 0.51 | UY | ug/Kg | P383141 | |
| | | 8:2 Fluorotelomer sulfonate (8:2 FTS)** | 0.26 | UY | ug/Kg | P383141 | |
| | | Perfluoroheptanesulfonic acid (PFHpS)** | 0.13 | UY | ug/Kg | P383141 | |
| | | Perfluorononanesulfonic acid (PFNS)** | 0.13 | UY | ug/Kg | P383141 | |
| | | Perfluorodecanesulfonic acid (PFDS)** | 0.13 | UY | ug/Kg | P383141 | |
| | | Hexafluoropropylene oxide dimer acid** | 0.13 | UY | ug/Kg | P383141 | |
| 2173846 | EPA 8260D | Benzene | 2.2 | UY | ug/kg | P382817 | |

**Field ID: IDW-Soil** Matrix: S-SOIL

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173846 | EPA 8260D | Bromodichloromethane | 2.2 | UY | ug/kg | P382817 | |
| | | Bromoform | 2.2 | UY | ug/kg | P382817 | |
| | | Bromomethane | 2.2 | UY | ug/kg | P382817 | |
| | | 2-Butanone | 11 | UY | ug/kg | P382817 | |
| | | Carbon tetrachloride | 2.2 | UY | ug/kg | P382817 | |
| | | Chlorobenzene | 2.2 | UY | ug/kg | P382817 | |
| | | Chloroethane | 2.2 | UY | ug/kg | P382817 | |
| | | Chloroform | 2.2 | UY | ug/kg | P382817 | |
| | | Chloromethane | 2.2 | UY | ug/kg | P382817 | |
| | | Dibromochloromethane | 2.2 | UY | ug/kg | P382817 | |
| | | 1,2-Dichlorobenzene | 2.2 | UY | ug/kg | P382817 | |
| | | 1,3-Dichlorobenzene | 2.2 | UY | ug/kg | P382817 | |
| | | 1,4-Dichlorobenzene | 2.2 | UY | ug/kg | P382817 | |
| | | 1,1-Dichloroethane | 2.2 | UY | ug/kg | P382817 | |
| | | 1,2-Dichloroethane | 2.2 | UY | ug/kg | P382817 | |
| | | 1,1-Dichloroethene | 2.2 | UY | ug/kg | P382817 | |
| | | cis-1,2-Dichloroethene | 2.2 | UY | ug/kg | P382817 | |
| | | trans-1,2-Dichloroethene | 2.2 | UY | ug/kg | P382817 | |
| | | 1,2-Dichloropropane | 2.2 | UY | ug/kg | P382817 | |
| | | cis-1,3-Dichloropropene | 2.2 | UY | ug/kg | P382817 | |
| | | trans-1,3-Dichloropropene | 2.2 | UY | ug/kg | P382817 | |
| | | Ethylbenzene | 2.2 | UY | ug/kg | P382817 | |
| | | Methylene chloride | 11 | UY | ug/kg | P382817 | |
| | | 1,1,2,2-Tetrachloroethane | 2.2 | UY | ug/kg | P382817 | |
| | | Tetrachloroethene | 2.2 | UY | ug/kg | P382817 | |
| | | Toluene | 2.2 | UY | ug/kg | P382817 | |
| | | 1,1,1-Trichloroethane | 2.2 | UY | ug/kg | P382817 | |
| | | 1,1,2-Trichloroethane | 2.2 | UY | ug/kg | P382817 | |
| | | Trichloroethene | 2.2 | UY | ug/kg | P382817 | |
| | | Trichlorofluoromethane | 2.2 | UY | ug/kg | P382817 | |
| | | Vinyl chloride | 2.2 | UY | ug/kg | P382817 | |
| | | Methyl-t-butyl ether | 2.2 | UY | ug/kg | P382817 | |
| | | o-Xylene | 2.2 | UY | ug/kg | P382817 | |
| | | m,p-Xylene | 2.2 | UY | ug/kg | P382817 | |
| 2173854 | SM 2540 G (20th) | % Solid** | 82.7 | A | % | P382795 | |

Ref. Method and Comment:
EPA 8270E: Precision for benzidine is not available due to low recoveries in the matrix spikes. Y - Sample was received with inadequate sample preservation; see NCR report. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 7473: Sample received outside the acceptable temperature range.
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.
EPA 8260D: Y - Sample was received with inadequate sample preservation; see NCR report.

**Sample Location: Hillsborough Community College (HCC)** **Collection Date/Time: 05/28/2020 10:40**

**Field ID: Trip Blank** Matrix: W-TRIP-BLK

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|---|---|---|---|---|---|---|---|
| 2173852 | EPA 8260D | Benzene | 0.20 | UY | ug/L | P382695 | |
| | | Bromodichloromethane | 0.20 | UY | ug/L | P382695 | |
| | | Bromoform | 0.50 | UY | ug/L | P382695 | |
| | | Bromomethane | 0.50 | UY | ug/L | P382695 | |
| | | 2-Butanone | 3.0 | UY | ug/L | P382695 | |
| | | Carbon tetrachloride | 0.20 | UY | ug/L | P382695 | |
| | | Chlorobenzene | 0.20 | UY | ug/L | P382695 | |
| | | Chloroethane | 0.50 | UY | ug/L | P382695 | |
| | | Chloroform | 0.20 | UY | ug/L | P382695 | |
| | | Chloromethane | 0.50 | UY | ug/L | P382695 | |
| | | Dibromochloromethane | 0.20 | UY | ug/L | P382695 | |
| | | 1,2-Dichlorobenzene | 0.50 | UY | ug/L | P382695 | |
| | | 1,3-Dichlorobenzene | 0.50 | UY | ug/L | P382695 | |
| | | 1,4-Dichlorobenzene | 0.50 | UY | ug/L | P382695 | |
| | | 1,1-Dichloroethane | 0.20 | UY | ug/L | P382695 | |
| | | 1,2-Dichloroethane | 0.20 | UY | ug/L | P382695 | |
| | | 1,1-Dichloroethene | 0.20 | UY | ug/L | P382695 | |
| | | cis-1,2-Dichloroethene | 0.20 | UY | ug/L | P382695 | |
| | | trans-1,2-Dichloroethene | 0.20 | UY | ug/L | P382695 | |
| | | 1,2-Dichloropropane | 0.20 | UY | ug/L | P382695 | |
| | | cis-1,3-Dichloropropene | 0.50 | UY | ug/L | P382695 | |
| | | trans-1,3-Dichloropropene | 0.50 | UY | ug/L | P382695 | |
| | | Ethylbenzene | 0.20 | UY | ug/L | P382695 | |
| | | Methyl-t-butyl ether | 0.20 | UY | ug/L | P382695 | |
| | | Methylene chloride | 1.0 | UY | ug/L | P382695 | |
| | | 1,1,2,2-Tetrachloroethane | 0.20 | UY | ug/L | P382695 | |
| | | Tetrachloroethene | 0.20 | UY | ug/L | P382695 | |
| | | Toluene | 0.50 | UY | ug/L | P382695 | |
| | | 1,1,1-Trichloroethane | 0.20 | UY | ug/L | P382695 | |
| | | 1,1,2-Trichloroethane | 0.20 | UY | ug/L | P382695 | |
| | | Trichloroethene | 0.20 | UY | ug/L | P382695 | |
| | | Trichlorofluoromethane | 0.20 | UY | ug/L | P382695 | |
| | | Vinyl chloride | 0.20 | UY | ug/L | P382695 | |
| | | o-Xylene | 0.50 | UY | ug/L | P382695 | |
| | | m,p-Xylene | 0.50 | UY | ug/L | P382695 | |

Ref. Method and Comment:
EPA 8260D: Y - Sample was received with inadequate sample preservation; see NCR report.

# Non-Conformance Report

**NCR ID: 8288**

| Event(s) | Job(s) | Sample(s) | Test(s) |
|---|---|---|---|
| SIS-2020-05-29-01 | | | |

**NCR Type: SHIPPING/RECEIVING** **NCR Category: Receiving**

Observation: Samples arrived outside of the acceptable temperature range.

Resolution: Karlee Fowler was notified.
Data will be qualified as appropriate.

Authorized by/Date: Joshua Ayres 6/3/2020

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

| | | |
|---|---|---|
| Chemistry | Colin Wright | (850) 245-8085 |
| Biology | Cheryl Swanson | (850) 245-8177 |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 6020A**
**Batch ID: P382825**

| Component | Result | Code | Units |
|---|---|---|---|
| Arsenic | 0.050 | U | ug/L |
| Barium | 0.20 | U | ug/L |
| Cadmium | 0.020 | U | ug/L |
| Chromium | 0.40 | U | ug/L |
| Lead | 0.20 | U | ug/L |
| Selenium | 0.20 | U | ug/L |
| Silver | 0.010 | U | ug/L |

**Reference Method: EPA 6020A**
**Batch ID: P383389**

| Component | Result | Code | Units |
|---|---|---|---|
| Arsenic | 0.016 | U | mg/Kg |
| Barium | 0.053 | U | mg/Kg |
| Cadmium | 0.011 | U | mg/Kg |
| Chromium | 0.27 | U | mg/Kg |
| Lead | 0.11 | U | mg/Kg |
| Selenium | 0.11 | U | mg/Kg |
| Silver | 0.0040 | U | mg/Kg |

**Reference Method: EPA 7473**
**Batch ID: P382894**

| Component | Result | Code | Units |
|---|---|---|---|
| Mercury | 0.10 | U | ug/L |

**Reference Method: EPA 7473**
**Batch ID: P383122**

| Component | Result | Code | Units |
|---|---|---|---|
| Mercury | 5.0E-04 | U | mg/Kg |

**Reference Method: EPA 8260D**
**Batch ID: P382695**

| Component | Result | Code | Units |
|---|---|---|---|
| 1,1-Dichloroethane | 0.20 | U | ug/L |
| 1,1-Dichloroethene | 0.20 | U | ug/L |
| 1,1,1-Trichloroethane | 0.20 | U | ug/L |
| 1,1,2-Trichloroethane | 0.20 | U | ug/L |
| 1,1,2,2-Tetrachloroethane | 0.20 | U | ug/L |
| 1,2-Dichlorobenzene | 0.50 | U | ug/L |
| 1,2-Dichloroethane | 0.20 | U | ug/L |
| 1,2-Dichloropropane | 0.20 | U | ug/L |
| 1,3-Dichlorobenzene | 0.50 | U | ug/L |
| 1,4-Dichlorobenzene | 0.50 | U | ug/L |
| 2-Butanone | 3.0 | U | ug/L |
| Benzene | 0.20 | U | ug/L |
| Bromodichloromethane | 0.20 | U | ug/L |
| Bromoform | 0.50 | U | ug/L |
| Bromomethane | 0.50 | U | ug/L |
| Carbon tetrachloride | 0.20 | U | ug/L |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8260D**
**Batch ID: P382695**

| Component | Result | Code | Units |
|---|---|---|---|
| Chlorobenzene | 0.20 | U | ug/L |
| Chloroethane | 0.50 | U | ug/L |
| Chloroform | 0.20 | U | ug/L |
| Chloromethane | 0.50 | U | ug/L |
| cis-1,2-Dichloroethene | 0.20 | U | ug/L |
| cis-1,3-Dichloropropene | 0.50 | U | ug/L |
| Dibromochloromethane | 0.20 | U | ug/L |
| Ethylbenzene | 0.20 | U | ug/L |
| m,p-Xylene | 0.50 | U | ug/L |
| Methyl-t-butyl ether | 0.20 | U | ug/L |
| Methylene chloride | 1.0 | U | ug/L |
| o-Xylene | 0.50 | U | ug/L |
| Tetrachloroethene | 0.20 | U | ug/L |
| Toluene | 0.50 | U | ug/L |
| trans-1,2-Dichloroethene | 0.20 | U | ug/L |
| trans-1,3-Dichloropropene | 0.50 | U | ug/L |
| Trichloroethene | 0.20 | U | ug/L |
| Trichlorofluoromethane | 0.20 | U | ug/L |
| Vinyl chloride | 0.20 | U | ug/L |

**Reference Method: EPA 8260D**
**Batch ID: P382817**

| Component | Result | Code | Units |
|---|---|---|---|
| 1,1-Dichloroethane | 2.0 | U | ug/kg |
| 1,1-Dichloroethene | 2.0 | U | ug/kg |
| 1,1,1-Trichloroethane | 2.0 | U | ug/kg |
| 1,1,2-Trichloroethane | 2.0 | U | ug/kg |
| 1,1,2,2-Tetrachloroethane | 2.0 | U | ug/kg |
| 1,2-Dichlorobenzene | 2.0 | U | ug/kg |
| 1,2-Dichloroethane | 2.0 | U | ug/kg |
| 1,2-Dichloropropane | 2.0 | U | ug/kg |
| 1,3-Dichlorobenzene | 2.0 | U | ug/kg |
| 1,4-Dichlorobenzene | 2.0 | U | ug/kg |
| 2-Butanone | 10 | U | ug/kg |
| Benzene | 2.0 | U | ug/kg |
| Bromodichloromethane | 2.0 | U | ug/kg |
| Bromoform | 2.0 | U | ug/kg |
| Bromomethane | 2.0 | U | ug/kg |
| Carbon tetrachloride | 2.0 | U | ug/kg |
| Chlorobenzene | 2.0 | U | ug/kg |
| Chloroethane | 2.0 | U | ug/kg |
| Chloroform | 2.0 | U | ug/kg |
| Chloromethane | 2.0 | U | ug/kg |
| cis-1,2-Dichloroethene | 2.0 | U | ug/kg |
| cis-1,3-Dichloropropene | 2.0 | U | ug/kg |
| Dibromochloromethane | 2.0 | U | ug/kg |
| Ethylbenzene | 2.0 | U | ug/kg |
| m,p-Xylene | 2.0 | U | ug/kg |
| Methyl-t-butyl ether | 2.0 | U | ug/kg |
| Methylene chloride | 10 | U | ug/kg |
| o-Xylene | 2.0 | U | ug/kg |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8260D**
**Batch ID: P382817**

| Component | Result | Code | Units |
|---|---|---|---|
| Tetrachloroethene | 2.0 | U | ug/kg |
| Toluene | 2.0 | U | ug/kg |
| trans-1,2-Dichloroethene | 2.0 | U | ug/kg |
| trans-1,3-Dichloropropene | 2.0 | U | ug/kg |
| Trichloroethene | 2.0 | U | ug/kg |
| Trichlorofluoromethane | 2.0 | U | ug/kg |
| Vinyl chloride | 2.0 | U | ug/kg |

**Reference Method: EPA 8270E**
**Batch ID: P382654**

| Component | Result | Code | Units |
|---|---|---|---|
| 1-Methylnaphthalene | 0.10 | U | ug/L |
| 1-Naphthylamine | 10 | U | ug/L |
| 1,2,4-Trichlorobenzene | 0.050 | U | ug/L |
| 1,2,4,5-Tetrachlorobenzene | 0.050 | U | ug/L |
| 1,3-Dinitrobenzene | 0.10 | U | ug/L |
| 1,3,5-Trinitrobenzene | 0.10 | U | ug/L |
| 2-Acetylaminofluorene | 1.0 | U | ug/L |
| 2-Chloronaphthalene | 0.050 | U | ug/L |
| 2-Chlorophenol | 0.050 | U | ug/L |
| 2-Methyl-4,6-dinitrophenol | 3.0 | U | ug/L |
| 2-Methylnaphthalene | 0.10 | U | ug/L |
| 2-Naphthylamine | 10 | U | ug/L |
| 2-Nitroaniline | 0.050 | U | ug/L |
| 2-Nitrophenol | 0.050 | U | ug/L |
| 2-Picoline | 1.0 | U | ug/L |
| 2,3,4,6-Tetrachlorophenol | 0.10 | U | ug/L |
| 2,4-Dichlorophenol | 0.050 | U | ug/L |
| 2,4-Dimethylphenol | 0.050 | U | ug/L |
| 2,4-Dinitrophenol | 10 | U | ug/L |
| 2,4-Dinitrotoluene | 0.050 | U | ug/L |
| 2,4,5-Trichlorophenol | 0.050 | U | ug/L |
| 2,4,6-Trichlorophenol | 0.050 | U | ug/L |
| 2,6-Dichlorophenol | 0.050 | U | ug/L |
| 2,6-Dinitrotoluene | 0.050 | U | ug/L |
| 3-Methylcholanthrene | 0.10 | U | ug/L |
| 3,3'-Dichlorobenzidine | 10 | U | ug/L |
| 4-Aminobiphenyl | 4.0 | U | ug/L |
| 4-Bromophenyl phenyl ether | 0.050 | U | ug/L |
| 4-Chloro-3-methylphenol | 0.050 | U | ug/L |
| 4-Chlorophenyl phenyl ether | 0.050 | U | ug/L |
| 4-Nitrophenol | 10 | U | ug/L |
| 5-Nitro-o-toluidine | 0.10 | U | ug/L |
| 7,12-Dimethylbenz(a)anthracene | 0.10 | U | ug/L |
| Acenaphthene | 0.025 | U | ug/L |
| Acenaphthylene | 0.025 | U | ug/L |
| Acetophenone | 0.20 | U | ug/L |
| Aniline | 1.0 | U | ug/L |
| Anthracene | 0.050 | U | ug/L |
| Azobenzene/1,2-Diphenylhydrazine | 0.050 | U | ug/L |
| Benzidine | 10 | U | ug/L |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8270E**
**Batch ID: P382654**

| Component | Result | Code | Units |
|---|---|---|---|
| Benzo(a)anthracene | 0.025 | U | ug/L |
| Benzo(a)pyrene | 0.025 | U | ug/L |
| Benzo(b)fluoranthene | 0.025 | U | ug/L |
| Benzo(g,h,i)perylene | 0.025 | U | ug/L |
| Benzo(k)fluoranthene | 0.025 | U | ug/L |
| Benzyl alcohol | 0.10 | U | ug/L |
| Bis(2-chloroethoxy)methane | 0.050 | U | ug/L |
| Bis(2-chloroethyl)ether | 0.050 | U | ug/L |
| Bis(2-chloroisopropyl)ether | 0.050 | U | ug/L |
| Bis(2-ethylhexyl)phthalate | 5.0 | U | ug/L |
| Butyl benzyl phthalate | 1.0 | U | ug/L |
| Carbazole | 0.050 | U | ug/L |
| Chrysene | 0.025 | U | ug/L |
| Di-n-butyl phthalate | 2.0 | U | ug/L |
| Di-n-octyl phthalate | 0.050 | U | ug/L |
| Dibenzo(a,h)anthracene | 0.025 | U | ug/L |
| Dibenzofuran | 0.050 | U | ug/L |
| Diethyl phthalate | 2.0 | U | ug/L |
| Dimethyl phthalate | 0.050 | U | ug/L |
| Dimethylaminoazobenzene | 0.050 | U | ug/L |
| Dinoseb | 4.0 | U | ug/L |
| Ethyl methanesulfonate | 1.0 | U | ug/L |
| Fluoranthene | 0.050 | U | ug/L |
| Fluorene | 0.025 | U | ug/L |
| Hexachlorobenzene | 0.050 | U | ug/L |
| Hexachlorobutadiene | 0.050 | U | ug/L |
| Hexachlorocyclopentadiene | 0.050 | U | ug/L |
| Hexachloroethane | 0.050 | U | ug/L |
| Hexachloropropene | 0.050 | U | ug/L |
| Indeno(1,2,3-cd)pyrene | 0.025 | U | ug/L |
| Isophorone | 0.050 | U | ug/L |
| Isosafrole | 0.050 | U | ug/L |
| m,p-Cresols | 0.050 | U | ug/L |
| N-Nitrosodi-n-butylamine | 0.050 | U | ug/L |
| N-Nitrosodi-n-propylamine | 0.050 | U | ug/L |
| N-Nitrosodiethylamine | 1.0 | U | ug/L |
| N-Nitrosodimethylamine | 2.0 | U | ug/L |
| N-Nitrosodiphenylamine/ Diphenylamine | 0.10 | U | ug/L |
| N-Nitrosomethylethylamine | 2.0 | U | ug/L |
| N-Nitrosomorpholine | 0.050 | U | ug/L |
| N-Nitrosopiperidine | 0.050 | U | ug/L |
| N-Nitrosopyrrolidine | 0.050 | U | ug/L |
| Naphthalene | 0.10 | U | ug/L |
| Nitrobenzene | 0.050 | U | ug/L |
| o-Cresol | 0.050 | U | ug/L |
| o-Toluidine | 0.10 | U | ug/L |
| Pentachlorobenzene | 0.050 | U | ug/L |
| Pentachloroethane | 0.050 | U | ug/L |
| Pentachloronitrobenzene | 0.050 | U | ug/L |
| Pentachlorophenol | 0.50 | U | ug/L |
| Phenacetin | 1.0 | U | ug/L |
| Phenanthrene | 0.10 | U | ug/L |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8270E**
**Batch ID: P382654**

| Component | Result | Code | Units |
|---|---|---|---|
| Phenol | 0.050 | U | ug/L |
| Pyrene | 0.10 | U | ug/L |
| Pyridine | 4.0 | U | ug/L |
| Safrole | 0.050 | U | ug/L |

**Reference Method: EPA 8270E**
**Batch ID: P382655**

| Component | Result | Code | Units |
|---|---|---|---|
| 1,2,4-Trichlorobenzene | 180 | U | ug/kg |
| 2-Chloronaphthalene | 60 | U | ug/kg |
| 2-Chlorophenol | 180 | U | ug/kg |
| 2-Methyl-4,6-dinitrophenol | 60 | U | ug/kg |
| 2-Nitrophenol | 60 | U | ug/kg |
| 2,4-Dichlorophenol | 60 | U | ug/kg |
| 2,4-Dimethylphenol | 360 | U | ug/kg |
| 2,4-Dinitrophenol | 360 | U | ug/kg |
| 2,4-Dinitrotoluene | 60 | U | ug/kg |
| 2,4,6-Trichlorophenol | 60 | U | ug/kg |
| 2,6-Dinitrotoluene | 60 | U | ug/kg |
| 3,3'-Dichlorobenzidine | 3.6E+03 | U | ug/kg |
| 4-Bromophenyl phenyl ether | 60 | U | ug/kg |
| 4-Chloro-3-methylphenol | 60 | U | ug/kg |
| 4-Chlorophenyl phenyl ether | 60 | U | ug/kg |
| 4-Nitrophenol | 60 | U | ug/kg |
| Acenaphthene | 6.7 | U | ug/kg |
| Acenaphthylene | 6.7 | U | ug/kg |
| Anthracene | 6.7 | U | ug/kg |
| Azobenzene/1,2-Diphenylhydrazine | 60 | U | ug/kg |
| Benzidine | 1.3E+03 | U | ug/kg |
| Benzo(a)anthracene | 6.7 | U | ug/kg |
| Benzo(a)pyrene | 6.7 | U | ug/kg |
| Benzo(b)fluoranthene | 6.7 | U | ug/kg |
| Benzo(g,h,i)perylene | 6.7 | U | ug/kg |
| Benzo(k)fluoranthene | 6.7 | U | ug/kg |
| Bis(2-chloroethoxy)methane | 60 | U | ug/kg |
| Bis(2-chloroethyl)ether | 60 | U | ug/kg |
| Bis(2-chloroisopropyl)ether | 60 | U | ug/kg |
| Bis(2-ethylhexyl)phthalate | 360 | U | ug/kg |
| Butyl benzyl phthalate | 60 | U | ug/kg |
| Chrysene | 6.7 | U | ug/kg |
| Di-n-butyl phthalate | 360 | U | ug/kg |
| Di-n-octyl phthalate | 60 | U | ug/kg |
| Dibenzo(a,h)anthracene | 6.7 | U | ug/kg |
| Diethyl phthalate | 60 | U | ug/kg |
| Dimethyl phthalate | 60 | U | ug/kg |
| Fluoranthene | 6.7 | U | ug/kg |
| Fluorene | 6.7 | U | ug/kg |
| Hexachlorobenzene | 60 | U | ug/kg |
| Hexachlorobutadiene | 180 | U | ug/kg |
| Hexachlorocyclopentadiene | 60 | U | ug/kg |
| Hexachloroethane | 180 | U | ug/kg |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8270E**
**Batch ID: P382655**

| Component | Result | Code | Units |
|---|---|---|---|
| Indeno(1,2,3-cd)pyrene | 6.7 | U | ug/kg |
| Isophorone | 60 | U | ug/kg |
| N-Nitrosodi-n-propylamine | 60 | U | ug/kg |
| N-Nitrosodimethylamine | 360 | U | ug/kg |
| N-Nitrosodiphenylamine/ Diphenylamine | 60 | U | ug/kg |
| Naphthalene | 6.7 | U | ug/kg |
| Nitrobenzene | 60 | U | ug/kg |
| Pentachlorophenol | 60 | U | ug/kg |
| Phenanthrene | 6.7 | U | ug/kg |
| Phenol | 60 | U | ug/kg |
| Pyrene | 6.7 | U | ug/kg |

**Reference Method: EPA 8321B**
**Batch ID: P382712**

| Component | Result | Code | Units |
|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 2.0 | U | ng/L |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 4.0 | U | ng/L |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 2.0 | U | ng/L |
| N-Et perfluorooctanesulfonamidoAc acid | 0.40 | U | ng/L |
| N-Me perfluorooctanesulfonamidoAc acid | 0.40 | U | ng/L |
| Perfluorobutanesulfonic acid (PFBS) | 0.40 | U | ng/L |
| Perfluorodecanesulfonic acid (PFDS) | 0.40 | U | ng/L |
| Perfluorodecanoic acid (PFDA) | 1.0 | U | ng/L |
| Perfluorododecanoic acid (PFDoA) | 1.0 | U | ng/L |
| Perfluoroheptanesulfonic acid (PFHpS) | 0.40 | U | ng/L |
| Perfluoroheptanoic acid (PFHpA) | 2.0 | U | ng/L |
| Perfluorohexanesulfonic acid (PFHxS) | 0.40 | U | ng/L |
| Perfluorohexanoic acid (PFHxA) | 2.0 | U | ng/L |
| Perfluorononanesulfonic acid (PFNS) | 0.40 | U | ng/L |
| Perfluorononanoic acid (PFNA) | 1.0 | U | ng/L |
| Perfluorooctanesulfonic acid (PFOS) | 2.0 | U | ng/L |
| Perfluorooctanoic acid (PFOA) | 1.0 | U | ng/L |
| Perfluoropentanesulfonic acid (PFPeS) | 0.40 | U | ng/L |
| Perfluoropentanoic acid (PFPeA) | 4.0 | U | ng/L |
| Perfluorotetradecanoic acid (PFTeA) | 0.40 | U | ng/L |
| Perfluorotridecanoic acid (PFTriA) | 0.40 | U | ng/L |
| Perfluoroundecanoic acid (PFUnA) | 1.0 | U | ng/L |

**Reference Method: EPA 8321B**
**Batch ID: P383141**

| Component | Result | Code | Units |
|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 0.19 | U | ug/Kg |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 0.37 | U | ug/Kg |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 0.19 | U | ug/Kg |
| Hexafluoropropylene oxide dimer acid | 0.093 | U | ug/Kg |
| N-Et perfluorooctanesulfonamidoAc acid | 0.093 | U | ug/Kg |
| N-Me perfluorooctanesulfonamidoAc acid | 0.093 | U | ug/Kg |
| Perfluorobutanesulfonic acid (PFBS) | 0.093 | U | ug/Kg |
| Perfluorodecanesulfonic acid (PFDS) | 0.093 | U | ug/Kg |
| Perfluorodecanoic acid (PFDA) | 0.093 | U | ug/Kg |

# Quality Assurance Report
# Method Blank Results

**Reference Method: EPA 8321B**
**Batch ID: P383141**

| Component | Result | Code | Units |
|---|---|---|---|
| Perfluorododecanoic acid (PFDoA) | 0.093 | U | ug/Kg |
| Perfluoroheptanesulfonic acid (PFHpS) | 0.093 | U | ug/Kg |
| Perfluoroheptanoic acid (PFHpA) | 0.19 | U | ug/Kg |
| Perfluorohexanesulfonic acid (PFHxS) | 0.093 | U | ug/Kg |
| Perfluorohexanoic acid (PFHxA) | 0.19 | U | ug/Kg |
| Perfluorononanesulfonic acid (PFNS) | 0.093 | U | ug/Kg |
| Perfluorononanoic acid (PFNA) | 0.093 | U | ug/Kg |
| Perfluorooctanesulfonic acid (PFOS) | 0.19 | U | ug/Kg |
| Perfluorooctanoic acid (PFOA) | 0.093 | U | ug/Kg |
| Perfluoropentanesulfonic acid (PFPeS) | 0.093 | U | ug/Kg |
| Perfluoropentanoic acid (PFPeA) | 0.37 | U | ug/Kg |
| Perfluorotetradecanoic acid (PFTeA) | 0.093 | U | ug/Kg |
| Perfluorotridecanoic acid (PFTriA) | 0.093 | U | ug/Kg |
| Perfluoroundecanoic acid (PFUnA) | 0.093 | U | ug/Kg |

# Quality Assurance Report
# Laboratory Control Sample Accuracy

**Reference Method: EPA 6020A**
**Batch ID: P382825**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| Arsenic | 108 | | P | 80 - 120 |
| Barium | 108 | | P | 80 - 120 |
| Cadmium | 106 | | P | 80 - 120 |
| Chromium | 105 | | P | 80 - 120 |
| Lead | 101 | | P | 85 - 115 |
| Selenium | 106 | | P | 80 - 120 |
| Silver | 103 | | P | 85 - 115 |

**Reference Method: EPA 6020A**
**Batch ID: P383389**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| Arsenic | 97.7 | | P | 80 - 120 |
| Barium | 101 | | P | 80 - 120 |
| Cadmium | 97.2 | | P | 80 - 120 |
| Chromium | 104 | | P | 80 - 120 |
| Lead | 102 | | P | 80 - 120 |
| Selenium | 94.0 | | P | 80 - 120 |
| Silver | 103 | | P | 80 - 120 |

**Reference Method: EPA 7473**
**Batch ID: P382894**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| Mercury | 98.8 | | P | 80 - 120 |

**Reference Method: EPA 7473**
**Batch ID: P383122**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| Mercury | 96.2 | | P | 80 - 120 |

**Reference Method: EPA 8260D**
**Batch ID: P382695**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 1,1-Dichloroethane | 101 | 103 | P/P | 70 - 130 |
| 1,1-Dichloroethene | 102 | 104 | P/P | 70 - 130 |
| 1,1,1-Trichloroethane | 102 | 104 | P/P | 70 - 130 |
| 1,1,2-Trichloroethane | 99.8 | 102 | P/P | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 95.4 | 101 | P/P | 60 - 140 |
| 1,2-Dichlorobenzene | 97.0 | 101 | P/P | 70 - 130 |
| 1,2-Dichloroethane | 102 | 103 | P/P | 70 - 130 |
| 1,2-Dichloropropane | 99.6 | 102 | P/P | 70 - 130 |
| 1,3-Dichlorobenzene | 96.7 | 99.0 | P/P | 70 - 130 |
| 1,4-Dichlorobenzene | 95.2 | 97.8 | P/P | 70 - 130 |
| 2-Butanone | 92.8 | 96.2 | P/P | 60 - 140 |
| Benzene | 101 | 103 | P/P | 70 - 130 |
| Bromodichloromethane | 102 | 104 | P/P | 70 - 130 |
| Bromoform | 101 | 103 | P/P | 60 - 140 |
| Bromomethane | 106 | 107 | P/P | 60 - 140 |
| Carbon tetrachloride | 105 | 106 | P/P | 70 - 130 |

# Quality Assurance Report
# Laboratory Control Sample Accuracy

**Reference Method: EPA 8260D**
**Batch ID: P382695**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| Chlorobenzene | 98.9 | 99.5 | P/P | 70 - 130 |
| Chloroethane | 104 | 105 | P/P | 60 - 140 |
| Chloroform | 102 | 103 | P/P | 70 - 130 |
| Chloromethane | 101 | 103 | P/P | 60 - 140 |
| cis-1,2-Dichloroethene | 101 | 102 | P/P | 70 - 130 |
| cis-1,3-Dichloropropene | 98.7 | 100 | P/P | 60 - 140 |
| Dibromochloromethane | 98.8 | 99.6 | P/P | 60 - 140 |
| Ethylbenzene | 102 | 102 | P/P | 70 - 130 |
| m,p-Xylene | 101 | 101 | P/P | 70 - 130 |
| Methyl-t-butyl ether | 102 | 104 | P/P | 60 - 140 |
| Methylene chloride | 100 | 101 | P/P | 70 - 130 |
| o-Xylene | 103 | 103 | P/P | 70 - 130 |
| Tetrachloroethene | 100 | 101 | P/P | 70 - 130 |
| Toluene | 101 | 103 | P/P | 70 - 130 |
| trans-1,2-Dichloroethene | 102 | 103 | P/P | 70 - 130 |
| trans-1,3-Dichloropropene | 94.3 | 95.4 | P/P | 60 - 140 |
| Trichloroethene | 103 | 103 | P/P | 70 - 130 |
| Trichlorofluoromethane | 107 | 108 | P/P | 60 - 140 |
| Vinyl chloride | 105 | 106 | P/P | 60 - 140 |

**Reference Method: EPA 8260D**
**Batch ID: P382817**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 1,1-Dichloroethane | 92.4 | 110 | P/P | 60 - 140 |
| 1,1-Dichloroethene | 102 | 117 | P/P | 60 - 140 |
| 1,1,1-Trichloroethane | 100 | 115 | P/P | 70 - 140 |
| 1,1,2-Trichloroethane | 86.9 | 101 | P/P | 70 - 140 |
| 1,1,2,2-Tetrachloroethane | 83.7 | 97.9 | P/P | 55 - 140 |
| 1,2-Dichlorobenzene | 93.4 | 112 | P/P | 45 - 140 |
| 1,2-Dichloroethane | 84.7 | 99.6 | P/P | 60 - 140 |
| 1,2-Dichloropropane | 81.3 | 95.3 | P/P | 70 - 140 |
| 1,3-Dichlorobenzene | 95.3 | 111 | P/P | 45 - 140 |
| 1,4-Dichlorobenzene | 96.1 | 114 | P/P | 45 - 140 |
| 2-Butanone | 74.1 | 90.2 | P/P | 50 - 140 |
| Benzene | 94.1 | 110 | P/P | 70 - 140 |
| Bromodichloromethane | 84.5 | 103 | P/P | 70 - 140 |
| Bromoform | 81.7 | 97.9 | P/P | 50 - 140 |
| Bromomethane | 97.2 | 115 | P/P | 50 - 140 |
| Carbon tetrachloride | 103 | 120 | P/P | 70 - 140 |
| Chlorobenzene | 95.2 | 110 | P/P | 60 - 140 |
| Chloroethane | 96.7 | 114 | P/P | 50 - 140 |
| Chloroform | 96.2 | 112 | P/P | 70 - 140 |
| Chloromethane | 92.3 | 110 | P/P | 50 - 140 |
| cis-1,2-Dichloroethene | 88.2 | 103 | P/P | 70 - 140 |
| cis-1,3-Dichloropropene | 85.6 | 104 | P/P | 60 - 140 |
| Dibromochloromethane | 93.1 | 108 | P/P | 60 - 140 |
| Ethylbenzene | 98.6 | 113 | P/P | 60 - 140 |
| m,p-Xylene | 100 | 116 | P/P | 60 - 140 |
| Methyl-t-butyl ether | 82.4 | 99.2 | P/P | 60 - 140 |
| Methylene chloride | 92.0 | 112 | P/P | 60 - 140 |
| o-Xylene | 98.7 | 114 | P/P | 60 - 140 |

# Quality Assurance Report
# Laboratory Control Sample Accuracy

**Reference Method: EPA 8260D**
**Batch ID: P382817**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| Tetrachloroethene | 104 | 118 | P/P | 60 - 140 |
| Toluene | 91.1 | 107 | P/P | 60 - 140 |
| trans-1,2-Dichloroethene | 94.9 | 111 | P/P | 60 - 140 |
| trans-1,3-Dichloropropene | 95.1 | 112 | P/P | 60 - 140 |
| Trichloroethene | 100 | 115 | P/P | 70 - 140 |
| Trichlorofluoromethane | 110 | 125 | P/P | 50 - 140 |
| Vinyl chloride | 91.6 | 108 | P/P | 50 - 140 |

**Reference Method: EPA 8270E**
**Batch ID: P382654**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 1-Methylnaphthalene | 99.6 | | P | 50 - 130 |
| 1-Naphthylamine | 27.6 | | P | 20 - 130 |
| 1,2,4-Trichlorobenzene | 85.8 | | P | 50 - 130 |
| 1,2,4,5-Tetrachlorobenzene | 94.1 | | P | 50 - 130 |
| 1,3-Dinitrobenzene | 101 | | P | 50 - 130 |
| 1,3,5-Trinitrobenzene | 110 | | P | 50 - 150 |
| 2-Acetylaminofluorene | 96.0 | | P | 50 - 130 |
| 2-Chloronaphthalene | 91.2 | | P | 50 - 130 |
| 2-Chlorophenol | 85.7 | | P | 50 - 130 |
| 2-Methyl-4,6-dinitrophenol | 90.5 | | P | 50 - 150 |
| 2-Methylnaphthalene | 99.9 | | P | 50 - 130 |
| 2-Naphthylamine | 24.1 | | P | 20 - 130 |
| 2-Nitroaniline | 104 | | P | 50 - 130 |
| 2-Nitrophenol | 76.5 | | P | 50 - 130 |
| 2-Picoline | 58.6 | | P | 50 - 130 |
| 2,3,4,6-Tetrachlorophenol | 110 | | P | 50 - 130 |
| 2,4-Dichlorophenol | 91.1 | | P | 50 - 130 |
| 2,4-Dimethylphenol | 88.8 | | P | 50 - 119 |
| 2,4-Dinitrophenol | 65.6 | | P | 30 - 160 |
| 2,4-Dinitrotoluene | 99.5 | | P | 50 - 130 |
| 2,4,5-Trichlorophenol | 90.5 | | P | 50 - 130 |
| 2,4,6-Trichlorophenol | 94.2 | | P | 50 - 130 |
| 2,6-Dichlorophenol | 104 | | P | 50 - 130 |
| 2,6-Dinitrotoluene | 97.3 | | P | 50 - 130 |
| 3-Methylcholanthrene | 104 | | P | 50 - 130 |
| 3,3'-Dichlorobenzidine | 88.4 | | P | 20 - 200 |
| 4-Aminobiphenyl | 105 | | P | 30 - 130 |
| 4-Bromophenyl phenyl ether | 99.0 | | P | 50 - 130 |
| 4-Chloro-3-methylphenol | 88.6 | | P | 50 - 130 |
| 4-Chlorophenyl phenyl ether | 96.0 | | P | 50 - 130 |
| 4-Nitrophenol | 87.5 | | P | 15 - 110 |
| 5-Nitro-o-toluidine | 86.4 | | P | 50 - 130 |
| 7,12-Dimethylbenz(a)anthracene | 102 | | P | 50 - 130 |
| Acenaphthene | 96.7 | | P | 50 - 130 |
| Acenaphthylene | 92.0 | | P | 50 - 130 |
| Acetophenone | 90.0 | | P | 50 - 130 |
| Aniline | 89.5 | | P | 30 - 130 |
| Anthracene | 97.4 | | P | 50 - 130 |
| Azobenzene/1,2-Diphenylhydrazine | 90.8 | | P | 50 - 130 |
| Benzidine | 3.55 | | P | 0.0 - 240 |

# Quality Assurance Report
# Laboratory Control Sample Accuracy

**Reference Method: EPA 8270E**
**Batch ID: P382654**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| Benzo(a)anthracene | 105 | | P | 50 - 130 |
| Benzo(a)pyrene | 99.9 | | P | 50 - 130 |
| Benzo(b)fluoranthene | 88.9 | | P | 50 - 130 |
| Benzo(g,h,i)perylene | 97.6 | | P | 50 - 130 |
| Benzo(k)fluoranthene | 90.2 | | P | 50 - 130 |
| Benzyl alcohol | 87.7 | | P | 50 - 130 |
| Bis(2-chloroethoxy)methane | 90.2 | | P | 50 - 130 |
| Bis(2-chloroethyl)ether | 84.7 | | P | 50 - 160 |
| Bis(2-chloroisopropyl)ether | 89.0 | | P | 50 - 130 |
| Bis(2-ethylhexyl)phthalate | 121 | | P | 50 - 160 |
| Butyl benzyl phthalate | 111 | | P | 50 - 160 |
| Carbazole | 78.2 | | P | 50 - 130 |
| Chrysene | 108 | | P | 50 - 130 |
| Di-n-butyl phthalate | 100 | | P | 50 - 130 |
| Di-n-octyl phthalate | 98.8 | | P | 50 - 130 |
| Dibenzo(a,h)anthracene | 99.4 | | P | 50 - 130 |
| Dibenzofuran | 97.3 | | P | 50 - 130 |
| Diethyl phthalate | 97.8 | | P | 50 - 130 |
| Dimethyl phthalate | 93.0 | | P | 50 - 130 |
| Dimethylaminoazobenzene | 84.9 | | P | 50 - 130 |
| Dinoseb | 92.1 | | P | 50 - 150 |
| Ethyl methanesulfonate | 77.1 | | P | 50 - 130 |
| Fluoranthene | 99.3 | | P | 50 - 130 |
| Fluorene | 97.5 | | P | 50 - 130 |
| Hexachlorobenzene | 96.0 | | P | 50 - 130 |
| Hexachlorobutadiene | 83.9 | | P | 24 - 130 |
| Hexachlorocyclopentadiene | 69.1 | | P | 20 - 130 |
| Hexachloroethane | 92.2 | | P | 40 - 130 |
| Hexachloropropene | 93.8 | | P | 50 - 130 |
| Indeno(1,2,3-cd)pyrene | 96.3 | | P | 50 - 130 |
| Isophorone | 85.1 | | P | 50 - 130 |
| Isosafrole | 96.4 | | P | 50 - 130 |
| m,p-Cresols | 78.5 | | P | 50 - 130 |
| N-Nitrosodi-n-butylamine | 99.4 | | P | 50 - 130 |
| N-Nitrosodi-n-propylamine | 83.7 | | P | 50 - 130 |
| N-Nitrosodiethylamine | 80.3 | | P | 50 - 130 |
| N-Nitrosodimethylamine | 78.6 | | P | 30 - 130 |
| N-Nitrosodiphenylamine/ Diphenylamine | 120 | | P | 50 - 160 |
| N-Nitrosomethylethylamine | 87.4 | | P | 50 - 130 |
| N-Nitrosomorpholine | 92.8 | | P | 50 - 150 |
| N-Nitrosopiperidine | 94.9 | | P | 50 - 130 |
| N-Nitrosopyrrolidine | 76.3 | | P | 50 - 130 |
| Naphthalene | 89.1 | | P | 50 - 130 |
| Nitrobenzene | 82.7 | | P | 50 - 130 |
| o-Cresol | 85.7 | | P | 50 - 130 |
| o-Toluidine | 88.4 | | P | 50 - 130 |
| Pentachlorobenzene | 97.1 | | P | 50 - 130 |
| Pentachloroethane | 76.8 | | P | 50 - 130 |
| Pentachloronitrobenzene | 105 | | P | 50 - 130 |
| Pentachlorophenol | 104 | | P | 50 - 130 |
| Phenacetin | 98.1 | | P | 50 - 130 |
| Phenanthrene | 98.5 | | P | 50 - 130 |

# Quality Assurance Report
# Laboratory Control Sample Accuracy

**Reference Method: EPA 8270E**
**Batch ID: P382654**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| Phenol | 61.5 | | P | 15 - 110 |
| Pyrene | 112 | | P | 50 - 130 |
| Pyridine | 53.8 | | P | 20 - 130 |
| Safrole | 102 | | P | 50 - 130 |

**Reference Method: EPA 8270E**
**Batch ID: P382655**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 71.6 | | P | 40 - 140 |
| 2-Chloronaphthalene | 81.5 | | P | 40 - 140 |
| 2-Chlorophenol | 81.2 | | P | 40 - 140 |
| 2-Methyl-4,6-dinitrophenol | 90.6 | | P | 40 - 140 |
| 2-Nitrophenol | 56.2 | | P | 40 - 140 |
| 2,4-Dichlorophenol | 78.9 | | P | 40 - 140 |
| 2,4-Dimethylphenol | 64.5 | | P | 40 - 140 |
| 2,4-Dinitrophenol | 93.2 | | P | 40 - 140 |
| 2,4-Dinitrotoluene | 95.8 | | P | 40 - 140 |
| 2,4,6-Trichlorophenol | 93.1 | | P | 40 - 140 |
| 2,6-Dinitrotoluene | 96.5 | | P | 40 - 140 |
| 3,3'-Dichlorobenzidine | 133 | | P | 5.0 - 200 |
| 4-Bromophenyl phenyl ether | 94.5 | | P | 40 - 140 |
| 4-Chloro-3-methylphenol | 86.1 | | P | 40 - 140 |
| 4-Chlorophenyl phenyl ether | 87.4 | | P | 40 - 140 |
| 4-Nitrophenol | 91.3 | | P | 40 - 140 |
| Acenaphthene | 87.9 | | P | 40 - 140 |
| Acenaphthylene | 88.6 | | P | 40 - 140 |
| Anthracene | 92.0 | | P | 40 - 140 |
| Azobenzene/1,2-Diphenylhydrazine | 97.1 | | P | 40 - 140 |
| Benzidine | 14.0 | | P | 5.0 - 200 |
| Benzo(a)anthracene | 101 | | P | 40 - 140 |
| Benzo(a)pyrene | 94.0 | | P | 40 - 140 |
| Benzo(b)fluoranthene | 97.9 | | P | 40 - 140 |
| Benzo(g,h,i)perylene | 94.2 | | P | 40 - 140 |
| Benzo(k)fluoranthene | 83.5 | | P | 40 - 140 |
| Bis(2-chloroethoxy)methane | 76.6 | | P | 40 - 140 |
| Bis(2-chloroethyl)ether | 71.1 | | P | 40 - 140 |
| Bis(2-chloroisopropyl)ether | 76.7 | | P | 40 - 160 |
| Bis(2-ethylhexyl)phthalate | 115 | | P | 40 - 140 |
| Butyl benzyl phthalate | 111 | | P | 40 - 140 |
| Chrysene | 105 | | P | 40 - 140 |
| Di-n-butyl phthalate | 111 | | P | 40 - 140 |
| Di-n-octyl phthalate | 94.6 | | P | 40 - 140 |
| Dibenzo(a,h)anthracene | 91.4 | | P | 40 - 140 |
| Diethyl phthalate | 93.4 | | P | 40 - 140 |
| Dimethyl phthalate | 91.9 | | P | 40 - 140 |
| Fluoranthene | 97.8 | | P | 40 - 140 |
| Fluorene | 88.5 | | P | 40 - 140 |
| Hexachlorobenzene | 93.6 | | P | 40 - 140 |
| Hexachlorobutadiene | 67.4 | | P | 40 - 140 |
| Hexachlorocyclopentadiene | 66.9 | | P | 40 - 140 |
| Hexachloroethane | 71.5 | | P | 40 - 140 |

# Quality Assurance Report
# Laboratory Control Sample Accuracy

**Reference Method: EPA 8270E**
**Batch ID: P382655**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| Indeno(1,2,3-cd)pyrene | 92.5 | | P | 40 - 140 |
| Isophorone | 73.8 | | P | 40 - 140 |
| N-Nitrosodi-n-propylamine | 77.2 | | P | 40 - 140 |
| N-Nitrosodimethylamine | 72.6 | | P | 40 - 140 |
| N-Nitrosodiphenylamine/ Diphenylamine | 58.9 | | P | 40 - 140 |
| Naphthalene | 74.9 | | P | 40 - 140 |
| Nitrobenzene | 72.0 | | P | 40 - 140 |
| Pentachlorophenol | 80.6 | | P | 40 - 140 |
| Phenanthrene | 92.9 | | P | 40 - 140 |
| Phenol | 75.4 | | P | 40 - 140 |
| Pyrene | 107 | | P | 40 - 140 |

**Reference Method: EPA 8321B**
**Batch ID: P382712**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 134 | | P | 30 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 105 | | P | 30 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 107 | | P | 30 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 83.4 | | P | 30 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 80.4 | | P | 30 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 113 | | P | 30 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 94.9 | | P | 30 - 160 |
| Perfluorodecanoic acid (PFDA) | 103 | | P | 30 - 160 |
| Perfluorododecanoic acid (PFDoA) | 99.3 | | P | 30 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 114 | | P | 30 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 125 | | P | 30 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 93.7 | | P | 30 - 160 |
| Perfluorohexanoic acid (PFHxA) | 98.4 | | P | 30 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 124 | | P | 30 - 160 |
| Perfluorononanoic acid (PFNA) | 96.4 | | P | 30 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 113 | | P | 30 - 160 |
| Perfluorooctanoic acid (PFOA) | 98.2 | | P | 30 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 110 | | P | 30 - 160 |
| Perfluoropentanoic acid (PFPeA) | 123 | | P | 30 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 52.7 | | P | 30 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 68.3 | | P | 30 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 100 | | P | 30 - 160 |

**Reference Method: EPA 8321B**
**Batch ID: P383141**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 127 | | P | 40 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 127 | | P | 40 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 108 | | P | 40 - 160 |
| Hexafluoropropylene oxide dimer acid | 57.3 | | P | 40 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 126 | | P | 40 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 120 | | P | 40 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 132 | | P | 40 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 146 | | P | 40 - 160 |
| Perfluorodecanoic acid (PFDA) | 120 | | P | 40 - 160 |

# Quality Assurance Report
# Laboratory Control Sample Accuracy

**Reference Method: EPA 8321B**
**Batch ID: P383141**

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|
| Perfluorododecanoic acid (PFDoA) | 107 | | P | 40 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 132 | | P | 40 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 118 | | P | 40 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 129 | | P | 40 - 160 |
| Perfluorohexanoic acid (PFHxA) | 124 | | P | 40 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 141 | | P | 40 - 160 |
| Perfluorononanoic acid (PFNA) | 121 | | P | 40 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 138 | | P | 40 - 160 |
| Perfluorooctanoic acid (PFOA) | 124 | | P | 40 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 135 | | P | 40 - 160 |
| Perfluoropentanoic acid (PFPeA) | 137 | | P | 40 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 109 | | P | 40 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 87.7 | | P | 40 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 108 | | P | 40 - 160 |

# Quality Assurance Report
# Matrix Spike Accuracy

**Reference Method: EPA 6020A**
**Batch ID: P382825**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2172424 | Arsenic | 108 | | P | 80 - 120 |
| 2172424 | Barium | 106 | | P | 80 - 120 |
| 2172424 | Cadmium | 105 | | P | 80 - 120 |
| 2172424 | Chromium | 106 | | P | 80 - 120 |
| 2172424 | Lead | 103 | | P | 80 - 120 |
| 2172424 | Selenium | 104 | | P | 80 - 120 |
| 2172424 | Silver | 102 | | P | 80 - 120 |
| 2173209 | Arsenic | 108 | 106 | P/P | 80 - 120 |
| 2173209 | Barium | 105 | 103 | P/P | 80 - 120 |
| 2173209 | Cadmium | 109 | 107 | P/P | 80 - 120 |
| 2173209 | Chromium | 103 | 103 | P/P | 80 - 120 |
| 2173209 | Lead | 101 | 101 | P/P | 80 - 120 |
| 2173209 | Selenium | 104 | 103 | P/P | 80 - 120 |
| 2173209 | Silver | 105 | 104 | P/P | 80 - 120 |

**Reference Method: EPA 6020A**
**Batch ID: P383389**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173844 | Arsenic | 99.0 | 97.1 | P/P | 75 - 125 |
| 2173844 | Barium | 103 | 101 | P/P | 75 - 125 |
| 2173844 | Cadmium | 97.8 | 95.3 | P/P | 75 - 125 |
| 2173844 | Chromium | 99.7 | 96.4 | P/P | 75 - 125 |
| 2173844 | Lead | 103 | 100 | P/P | 75 - 125 |
| 2173844 | Selenium | 95.5 | 92.9 | P/P | 75 - 125 |
| 2173844 | Silver | 105 | 102 | P/P | 75 - 125 |

**Reference Method: EPA 7473**
**Batch ID: P382894**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2174538 | Mercury | 97.9 | 99.2 | P/P | 80 - 120 |

**Reference Method: EPA 7473**
**Batch ID: P383122**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173843 | Mercury | 101 | 102 | P/P | 80 - 120 |

**Reference Method: EPA 8260D**
**Batch ID: P382695**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173362 | 1,1-Dichloroethane | 100 | 103 | P/P | 70 - 130 |
| 2173362 | 1,1-Dichloroethene | 101 | 105 | P/P | 70 - 130 |
| 2173362 | 1,1,1-Trichloroethane | 101 | 104 | P/P | 70 - 130 |
| 2173362 | 1,1,2-Trichloroethane | 99.8 | 103 | P/P | 70 - 130 |
| 2173362 | 1,1,2,2-Tetrachloroethane | 102 | 105 | P/P | 60 - 140 |
| 2173362 | 1,2-Dichlorobenzene | 96.6 | 100 | P/P | 70 - 130 |
| 2173362 | 1,2-Dichloroethane | 100 | 102 | P/P | 70 - 130 |
| 2173362 | 1,2-Dichloropropane | 100 | 103 | P/P | 70 - 130 |
| 2173362 | 1,3-Dichlorobenzene | 95.6 | 98.8 | P/P | 70 - 130 |

# Quality Assurance Report
# Matrix Spike Accuracy

**Reference Method: EPA 8260D**
**Batch ID: P382695**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173362 | 1,4-Dichlorobenzene | 94.8 | 98.0 | P/P | 70 - 130 |
| 2173362 | 2-Butanone | 96.1 | 98.2 | P/P | 60 - 140 |
| 2173362 | Benzene | 101 | 103 | P/P | 70 - 130 |
| 2173362 | Bromodichloromethane | 102 | 104 | P/P | 70 - 130 |
| 2173362 | Bromoform | 101 | 104 | P/P | 60 - 140 |
| 2173362 | Bromomethane | 105 | 106 | P/P | 60 - 140 |
| 2173362 | Carbon tetrachloride | 103 | 106 | P/P | 70 - 130 |
| 2173362 | Chlorobenzene | 97.6 | 100 | P/P | 70 - 130 |
| 2173362 | Chloroethane | 102 | 104 | P/P | 60 - 140 |
| 2173362 | Chloroform | 101 | 103 | P/P | 70 - 130 |
| 2173362 | Chloromethane | 104 | 108 | P/P | 60 - 140 |
| 2173362 | cis-1,2-Dichloroethene | 99.8 | 102 | P/P | 70 - 130 |
| 2173362 | cis-1,3-Dichloropropene | 97.1 | 99.8 | P/P | 60 - 140 |
| 2173362 | Dibromochloromethane | 98.8 | 101 | P/P | 60 - 140 |
| 2173362 | Ethylbenzene | 100 | 103 | P/P | 70 - 130 |
| 2173362 | m,p-Xylene | 99.6 | 101 | P/P | 70 - 130 |
| 2173362 | Methyl-t-butyl ether | 106 | 110 | P/P | 60 - 140 |
| 2173362 | Methylene chloride | 97.2 | 99.7 | P/P | 70 - 130 |
| 2173362 | o-Xylene | 101 | 104 | P/P | 70 - 130 |
| 2173362 | Tetrachloroethene | 99.4 | 101 | P/P | 70 - 130 |
| 2173362 | Toluene | 99.5 | 103 | P/P | 70 - 130 |
| 2173362 | trans-1,2-Dichloroethene | 101 | 103 | P/P | 70 - 130 |
| 2173362 | trans-1,3-Dichloropropene | 91.9 | 94.0 | P/P | 60 - 140 |
| 2173362 | Trichloroethene | 98.4 | 100 | P/P | 70 - 130 |
| 2173362 | Trichlorofluoromethane | 105 | 107 | P/P | 60 - 140 |
| 2173362 | Vinyl chloride | 104 | 106 | P/P | 60 - 140 |

**Reference Method: EPA 8260D**
**Batch ID: P382817**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173846 | 1,1-Dichloroethane | 97.9 | 103 | P/P | 60 - 140 |
| 2173846 | 1,1-Dichloroethene | 104 | 110 | P/P | 60 - 140 |
| 2173846 | 1,1,1-Trichloroethane | 100 | 109 | P/P | 70 - 140 |
| 2173846 | 1,1,2-Trichloroethane | 86.8 | 95.2 | P/P | 70 - 140 |
| 2173846 | 1,1,2,2-Tetrachloroethane | 84.8 | 88.3 | P/P | 55 - 140 |
| 2173846 | 1,2-Dichlorobenzene | 78.2 | 84.0 | P/P | 45 - 140 |
| 2173846 | 1,2-Dichloroethane | 90.7 | 95.9 | P/P | 60 - 140 |
| 2173846 | 1,2-Dichloropropane | 86.5 | 92.7 | P/P | 70 - 140 |
| 2173846 | 1,3-Dichlorobenzene | 79.5 | 84.7 | P/P | 45 - 140 |
| 2173846 | 1,4-Dichlorobenzene | 83.8 | 87.7 | P/P | 45 - 140 |
| 2173846 | 2-Butanone | 73.8 | 87.6 | P/P | 50 - 140 |
| 2173846 | Benzene | 98.5 | 105 | P/P | 70 - 140 |
| 2173846 | Bromodichloromethane | 90.8 | 95.2 | P/P | 70 - 140 |
| 2173846 | Bromoform | 79.3 | 88.6 | P/P | 50 - 140 |
| 2173846 | Bromomethane | 103 | 110 | P/P | 50 - 140 |
| 2173846 | Carbon tetrachloride | 105 | 111 | P/P | 70 - 140 |
| 2173846 | Chlorobenzene | 90.6 | 98.3 | P/P | 60 - 140 |
| 2173846 | Chloroethane | 101 | 105 | P/P | 50 - 140 |
| 2173846 | Chloroform | 98.9 | 104 | P/P | 70 - 140 |
| 2173846 | Chloromethane | 99.1 | 103 | P/P | 50 - 140 |
| 2173846 | cis-1,2-Dichloroethene | 92.6 | 98.0 | P/P | 70 - 140 |

# Quality Assurance Report
# Matrix Spike Accuracy

**Reference Method: EPA 8260D**
**Batch ID: P382817**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173846 | cis-1,3-Dichloropropene | 91.7 | 97.7 | P/P | 60 - 140 |
| 2173846 | Dibromochloromethane | 94.4 | 102 | P/P | 60 - 140 |
| 2173846 | Ethylbenzene | 91.4 | 99.4 | P/P | 60 - 140 |
| 2173846 | m,p-Xylene | 92.9 | 103 | P/P | 60 - 140 |
| 2173846 | Methyl-t-butyl ether | 89.8 | 96.3 | P/P | 60 - 140 |
| 2173846 | Methylene chloride | 98.1 | 105 | P/P | 60 - 140 |
| 2173846 | o-Xylene | 91.3 | 102 | P/P | 60 - 140 |
| 2173846 | Tetrachloroethene | 97.6 | 105 | P/P | 60 - 140 |
| 2173846 | Toluene | 95.3 | 98.0 | P/P | 60 - 140 |
| 2173846 | trans-1,2-Dichloroethene | 98.4 | 104 | P/P | 60 - 140 |
| 2173846 | trans-1,3-Dichloropropene | 95.1 | 105 | P/P | 60 - 140 |
| 2173846 | Trichloroethene | 101 | 109 | P/P | 70 - 140 |
| 2173846 | Trichlorofluoromethane | 112 | 119 | P/P | 50 - 140 |
| 2173846 | Vinyl chloride | 97.2 | 101 | P/P | 50 - 140 |

**Reference Method: EPA 8270E**
**Batch ID: P382654**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173746 | 1-Methylnaphthalene | 94.9 | 95.3 | P/P | 50 - 130 |
| 2173746 | 1-Naphthylamine | 26.5 | 31.3 | P/P | 20 - 130 |
| 2173746 | 1,2,4-Trichlorobenzene | 78.4 | 81.3 | P/P | 50 - 130 |
| 2173746 | 1,2,4,5-Tetrachlorobenzene | 91.1 | 86.5 | P/P | 50 - 130 |
| 2173746 | 1,3-Dinitrobenzene | 101 | 98.4 | P/P | 50 - 130 |
| 2173746 | 1,3,5-Trinitrobenzene | 109 | 106 | P/P | 50 - 150 |
| 2173746 | 2-Acetylaminofluorene | 98.8 | 94.2 | P/P | 50 - 130 |
| 2173746 | 2-Chloronaphthalene | 86.0 | 87.5 | P/P | 50 - 130 |
| 2173746 | 2-Chlorophenol | 87.6 | 88.8 | P/P | 50 - 130 |
| 2173746 | 2-Methyl-4,6-dinitrophenol | 94.1 | 98.7 | P/P | 50 - 150 |
| 2173746 | 2-Methylnaphthalene | 94.0 | 95.3 | P/P | 50 - 130 |
| 2173746 | 2-Naphthylamine | 24.3 | 27.1 | P/P | 20 - 130 |
| 2173746 | 2-Nitroaniline | 96.0 | 97.3 | P/P | 50 - 130 |
| 2173746 | 2-Nitrophenol | 70.8 | 71.0 | P/P | 50 - 130 |
| 2173746 | 2-Picoline | 74.2 | 72.8 | P/P | 50 - 130 |
| 2173746 | 2,3,4,6-Tetrachlorophenol | 106 | 104 | P/P | 50 - 130 |
| 2173746 | 2,4-Dichlorophenol | 91.9 | 92.2 | P/P | 50 - 130 |
| 2173746 | 2,4-Dimethylphenol | 54.6 | 69.2 | P/P | 50 - 119 |
| 2173746 | 2,4-Dinitrophenol | 81.9 | 83.8 | P/P | 30 - 160 |
| 2173746 | 2,4-Dinitrotoluene | 96.3 | 96.7 | P/P | 50 - 130 |
| 2173746 | 2,4,5-Trichlorophenol | 86.6 | 86.3 | P/P | 50 - 130 |
| 2173746 | 2,4,6-Trichlorophenol | 91.0 | 90.4 | P/P | 50 - 130 |
| 2173746 | 2,6-Dichlorophenol | 103 | 105 | P/P | 50 - 130 |
| 2173746 | 2,6-Dinitrotoluene | 92.7 | 94.1 | P/P | 50 - 130 |
| 2173746 | 3-Methylcholanthrene | 100 | 97.7 | P/P | 50 - 130 |
| 2173746 | 3,3'-Dichlorobenzidine | 81.8 | 82.0 | P/P | 20 - 200 |
| 2173746 | 4-Aminobiphenyl | 100 | 98.8 | P/P | 30 - 130 |
| 2173746 | 4-Bromophenyl phenyl ether | 97.7 | 102 | P/P | 50 - 130 |
| 2173746 | 4-Chloro-3-methylphenol | 83.4 | 82.6 | P/P | 50 - 130 |
| 2173746 | 4-Chlorophenyl phenyl ether | 90.9 | 92.2 | P/P | 50 - 130 |
| 2173746 | 4-Nitrophenol | 83.8 | 83.1 | P/P | 15 - 110 |
| 2173746 | 5-Nitro-o-toluidine | 76.7 | 75.1 | P/P | 50 - 130 |
| 2173746 | 7,12-Dimethylbenz(a)anthracene | 97.6 | 94.0 | P/P | 50 - 130 |

# Quality Assurance Report
# Matrix Spike Accuracy

**Reference Method: EPA 8270E**
**Batch ID: P382654**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173746 | Acenaphthene | 93.5 | 93.2 | P/P | 50 - 130 |
| 2173746 | Acenaphthylene | 87.7 | 87.9 | P/P | 50 - 130 |
| 2173746 | Acetophenone | 92.1 | 90.0 | P/P | 50 - 130 |
| 2173746 | Aniline | 88.8 | 92.5 | P/P | 30 - 130 |
| 2173746 | Anthracene | 88.5 | 93.2 | P/P | 50 - 130 |
| 2173746 | Azobenzene/1,2-Diphenylhydrazine | 89.3 | 91.8 | P/P | 50 - 130 |
| 2173746 | Benzidine | 4.85 | 6.40 | P/P | 0.0 - 240 |
| 2173746 | Benzo(a)anthracene | 101 | 104 | P/P | 50 - 130 |
| 2173746 | Benzo(a)pyrene | 96.5 | 97.2 | P/P | 50 - 130 |
| 2173746 | Benzo(b)fluoranthene | 89.7 | 89.4 | P/P | 50 - 130 |
| 2173746 | Benzo(g,h,i)perylene | 96.1 | 96.4 | P/P | 50 - 130 |
| 2173746 | Benzo(k)fluoranthene | 99.1 | 92.4 | P/P | 50 - 130 |
| 2173746 | Benzyl alcohol | 90.6 | 91.0 | P/P | 50 - 130 |
| 2173746 | Bis(2-chloroethoxy)methane | 91.1 | 90.5 | P/P | 50 - 130 |
| 2173746 | Bis(2-chloroethyl)ether | 85.0 | 84.8 | P/P | 50 - 160 |
| 2173746 | Bis(2-chloroisopropyl)ether | 89.6 | 91.5 | P/P | 50 - 130 |
| 2173746 | Bis(2-ethylhexyl)phthalate | 117 | 117 | P/P | 50 - 160 |
| 2173746 | Butyl benzyl phthalate | 106 | 109 | P/P | 50 - 160 |
| 2173746 | Carbazole | 69.5 | 69.2 | P/P | 50 - 130 |
| 2173746 | Chrysene | 106 | 108 | P/P | 50 - 130 |
| 2173746 | Di-n-butyl phthalate | 97.6 | 99.0 | P/P | 50 - 130 |
| 2173746 | Di-n-octyl phthalate | 95.5 | 97.0 | P/P | 50 - 130 |
| 2173746 | Dibenzo(a,h)anthracene | 99.0 | 99.5 | P/P | 50 - 130 |
| 2173746 | Dibenzofuran | 94.4 | 95.2 | P/P | 50 - 130 |
| 2173746 | Diethyl phthalate | 91.8 | 93.6 | P/P | 50 - 130 |
| 2173746 | Dimethyl phthalate | 89.0 | 90.1 | P/P | 50 - 130 |
| 2173746 | Dimethylaminoazobenzene | 86.1 | 84.0 | P/P | 50 - 130 |
| 2173746 | Dinoseb | 102 | 97.3 | P/P | 50 - 150 |
| 2173746 | Ethyl methanesulfonate | 78.8 | 76.9 | P/P | 50 - 130 |
| 2173746 | Fluoranthene | 97.1 | 100 | P/P | 50 - 130 |
| 2173746 | Fluorene | 92.7 | 93.3 | P/P | 50 - 130 |
| 2173746 | Hexachlorobenzene | 92.2 | 95.9 | P/P | 50 - 130 |
| 2173746 | Hexachlorobutadiene | 59.2 | 64.2 | P/P | 24 - 130 |
| 2173746 | Hexachlorocyclopentadiene | 49.9 | 55.7 | P/P | 20 - 130 |
| 2173746 | Hexachloroethane | 71.9 | 79.5 | P/P | 40 - 130 |
| 2173746 | Hexachloropropene | 79.3 | 70.2 | P/P | 50 - 130 |
| 2173746 | Indeno(1,2,3-cd)pyrene | 96.2 | 95.8 | P/P | 50 - 130 |
| 2173746 | Isophorone | 85.8 | 85.3 | P/P | 50 - 130 |
| 2173746 | Isosafrole | 95.2 | 96.0 | P/P | 50 - 130 |
| 2173746 | m,p-Cresols | 81.2 | 82.5 | P/P | 50 - 130 |
| 2173746 | N-Nitrosodi-n-butylamine | 96.9 | 96.7 | P/P | 50 - 130 |
| 2173746 | N-Nitrosodi-n-propylamine | 84.4 | 87.3 | P/P | 50 - 130 |
| 2173746 | N-Nitrosodiethylamine | 79.9 | 77.2 | P/P | 50 - 130 |
| 2173746 | N-Nitrosodimethylamine | 77.4 | 77.9 | P/P | 30 - 130 |
| 2173746 | N-Nitrosodiphenylamine/ Diphenylamine | 116 | 117 | P/P | 50 - 160 |
| 2173746 | N-Nitrosomethylethylamine | 88.8 | 89.5 | P/P | 50 - 130 |
| 2173746 | N-Nitrosomorpholine | 94.6 | 92.1 | P/P | 50 - 150 |
| 2173746 | N-Nitrosopiperidine | 97.7 | 94.4 | P/P | 50 - 130 |
| 2173746 | N-Nitrosopyrrolidine | 76.4 | 74.9 | P/P | 50 - 130 |
| 2173746 | Naphthalene | 86.0 | 87.0 | P/P | 50 - 130 |
| 2173746 | Nitrobenzene | 84.9 | 84.2 | P/P | 50 - 130 |
| 2173746 | o-Cresol | 82.5 | 85.1 | P/P | 50 - 130 |

# Quality Assurance Report
# Matrix Spike Accuracy

**Reference Method: EPA 8270E**
**Batch ID: P382654**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173746 | o-Toluidine | 91.7 | 86.9 | P/P | 50 - 130 |
| 2173746 | Pentachlorobenzene | 91.5 | 88.5 | P/P | 50 - 130 |
| 2173746 | Pentachloroethane | 74.0 | 67.0 | P/P | 50 - 130 |
| 2173746 | Pentachloronitrobenzene | 100 | 99.1 | P/P | 50 - 130 |
| 2173746 | Pentachlorophenol | 98.0 | 106 | P/P | 50 - 130 |
| 2173746 | Phenacetin | 94.8 | 94.4 | P/P | 50 - 130 |
| 2173746 | Phenanthrene | 96.4 | 99.6 | P/P | 50 - 130 |
| 2173746 | Phenol | 61.4 | 59.9 | P/P | 15 - 110 |
| 2173746 | Pyrene | 107 | 111 | P/P | 50 - 130 |
| 2173746 | Pyridine | 56.3 | 56.4 | P/P | 20 - 130 |
| 2173746 | Safrole | 101 | 100 | P/P | 50 - 130 |

**Reference Method: EPA 8270E**
**Batch ID: P382655**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173842 | 1,2,4-Trichlorobenzene | 74.4 | 67.6 | P/P | 40 - 140 |
| 2173842 | 2-Chloronaphthalene | 79.4 | 81.8 | P/P | 40 - 140 |
| 2173842 | 2-Chlorophenol | 83.0 | 80.0 | P/P | 40 - 140 |
| 2173842 | 2-Methyl-4,6-dinitrophenol | 94.1 | 91.2 | P/P | 40 - 140 |
| 2173842 | 2-Nitrophenol | 63.4 | 59.7 | P/P | 40 - 140 |
| 2173842 | 2,4-Dichlorophenol | 87.2 | 82.5 | P/P | 40 - 140 |
| 2173842 | 2,4-Dimethylphenol | 85.3 | 82.6 | P/P | 40 - 140 |
| 2173842 | 2,4-Dinitrophenol | 94.8 | 93.2 | P/P | 40 - 140 |
| 2173842 | 2,4-Dinitrotoluene | 94.7 | 95.5 | P/P | 40 - 140 |
| 2173842 | 2,4,6-Trichlorophenol | 96.5 | 96.3 | P/P | 40 - 140 |
| 2173842 | 2,6-Dinitrotoluene | 94.8 | 95.2 | P/P | 40 - 140 |
| 2173842 | 3,3'-Dichlorobenzidine | 113 | 113 | P/P | 5.0 - 200 |
| 2173842 | 4-Bromophenyl phenyl ether | 94.2 | 95.6 | P/P | 40 - 140 |
| 2173842 | 4-Chloro-3-methylphenol | 92.0 | 86.6 | P/P | 40 - 140 |
| 2173842 | 4-Chlorophenyl phenyl ether | 88.0 | 87.5 | P/P | 40 - 140 |
| 2173842 | 4-Nitrophenol | 91.6 | 87.0 | P/P | 40 - 140 |
| 2173842 | Acenaphthene | 89.2 | 86.8 | P/P | 40 - 140 |
| 2173842 | Acenaphthylene | 89.1 | 88.0 | P/P | 40 - 140 |
| 2173842 | Anthracene | 94.6 | 91.9 | P/P | 40 - 140 |
| 2173842 | Azobenzene/1,2-Diphenylhydrazine | 100 | 96.9 | P/P | 40 - 140 |
| 2173842 | Benzidine | 0.0 | 0.0 | F/F | 5.0 - 200 |
| 2173842 | Benzo(a)anthracene | 100 | 97.4 | P/P | 40 - 140 |
| 2173842 | Benzo(a)pyrene | 92.2 | 88.9 | P/P | 40 - 140 |
| 2173842 | Benzo(b)fluoranthene | 98.6 | 102 | P/P | 40 - 140 |
| 2173842 | Benzo(g,h,i)perylene | 87.8 | 84.7 | P/P | 40 - 140 |
| 2173842 | Benzo(k)fluoranthene | 75.2 | 65.6 | P/P | 40 - 140 |
| 2173842 | Bis(2-chloroethoxy)methane | 80.7 | 77.2 | P/P | 40 - 140 |
| 2173842 | Bis(2-chloroethyl)ether | 83.6 | 74.5 | P/P | 40 - 140 |
| 2173842 | Bis(2-chloroisopropyl)ether | 81.2 | 74.0 | P/P | 40 - 160 |
| 2173842 | Bis(2-ethylhexyl)phthalate | 116 | 112 | P/P | 40 - 140 |
| 2173842 | Butyl benzyl phthalate | 107 | 106 | P/P | 40 - 140 |
| 2173842 | Chrysene | 105 | 102 | P/P | 40 - 140 |
| 2173842 | Di-n-butyl phthalate | 105 | 102 | P/P | 40 - 140 |
| 2173842 | Di-n-octyl phthalate | 92.2 | 88.2 | P/P | 40 - 140 |
| 2173842 | Dibenzo(a,h)anthracene | 91.1 | 88.3 | P/P | 40 - 140 |
| 2173842 | Diethyl phthalate | 90.7 | 93.0 | P/P | 40 - 140 |

# Quality Assurance Report
# Matrix Spike Accuracy

**Reference Method: EPA 8270E**
**Batch ID: P382655**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173842 | Dimethyl phthalate | 91.0 | 91.3 | P/P | 40 - 140 |
| 2173842 | Fluoranthene | 98.3 | 96.6 | P/P | 40 - 140 |
| 2173842 | Fluorene | 88.9 | 88.1 | P/P | 40 - 140 |
| 2173842 | Hexachlorobenzene | 95.4 | 93.8 | P/P | 40 - 140 |
| 2173842 | Hexachlorobutadiene | 66.1 | 60.8 | P/P | 40 - 140 |
| 2173842 | Hexachlorocyclopentadiene | 47.1 | 40.4 | P/P | 40 - 140 |
| 2173842 | Hexachloroethane | 64.8 | 57.4 | P/P | 40 - 140 |
| 2173842 | Indeno(1,2,3-cd)pyrene | 91.0 | 87.8 | P/P | 40 - 140 |
| 2173842 | Isophorone | 81.4 | 76.1 | P/P | 40 - 140 |
| 2173842 | N-Nitrosodi-n-propylamine | 79.6 | 74.7 | P/P | 40 - 140 |
| 2173842 | N-Nitrosodimethylamine | 80.1 | 75.6 | P/P | 40 - 140 |
| 2173842 | N-Nitrosodiphenylamine/ Diphenylamine | 58.0 | 59.0 | P/P | 40 - 140 |
| 2173842 | Naphthalene | 78.8 | 72.9 | P/P | 40 - 140 |
| 2173842 | Nitrobenzene | 75.5 | 72.6 | P/P | 40 - 140 |
| 2173842 | Pentachlorophenol | 102 | 101 | P/P | 40 - 140 |
| 2173842 | Phenanthrene | 94.6 | 92.8 | P/P | 40 - 140 |
| 2173842 | Phenol | 69.6 | 70.2 | P/P | 40 - 140 |
| 2173842 | Pyrene | 101 | 101 | P/P | 40 - 140 |

**Reference Method: EPA 8321B**
**Batch ID: P382712**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173850 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 143 | 135 | P/P | 30 - 160 |
| 2173850 | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 129 | 130 | P/P | 30 - 160 |
| 2173850 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 96.4 | 87.1 | P/P | 30 - 160 |
| 2173850 | N-Et perfluorooctanesulfonamidoAc acid | 80.8 | 76.7 | P/P | 30 - 160 |
| 2173850 | N-Me perfluorooctanesulfonamidoAc acid | 79.6 | 79.9 | P/P | 30 - 160 |
| 2173850 | Perfluorobutanesulfonic acid (PFBS) | 116 | 107 | P/P | 30 - 160 |
| 2173850 | Perfluorodecanesulfonic acid (PFDS) | 83.3 | 92.4 | P/P | 30 - 160 |
| 2173850 | Perfluorodecanoic acid (PFDA) | 99.6 | 95.3 | P/P | 30 - 160 |
| 2173850 | Perfluorododecanoic acid (PFDoA) | 73.7 | 85.5 | P/P | 30 - 160 |
| 2173850 | Perfluoroheptanesulfonic acid (PFHpS) | 113 | 103 | P/P | 30 - 160 |
| 2173850 | Perfluoroheptanoic acid (PFHpA) | 133 | 134 | P/P | 30 - 160 |
| 2173850 | Perfluorohexanesulfonic acid (PFHxS) | 93.8 | 88.1 | P/P | 30 - 160 |
| 2173850 | Perfluorohexanoic acid (PFHxA) | 110 | 107 | P/P | 30 - 160 |
| 2173850 | Perfluorononanesulfonic acid (PFNS) | 111 | 108 | P/P | 30 - 160 |
| 2173850 | Perfluorononanoic acid (PFNA) | 104 | 111 | P/P | 30 - 160 |
| 2173850 | Perfluorooctanesulfonic acid (PFOS) | 114 | 107 | P/P | 30 - 160 |
| 2173850 | Perfluorooctanoic acid (PFOA) | 105 | 107 | P/P | 30 - 160 |
| 2173850 | Perfluoropentanesulfonic acid (PFPeS) | 111 | 105 | P/P | 30 - 160 |
| 2173850 | Perfluoropentanoic acid (PFPeA) | 116 | 124 | P/P | 30 - 160 |
| 2173850 | Perfluorotetradecanoic acid (PFTeA) | 52.6 | 53.2 | P/P | 30 - 160 |
| 2173850 | Perfluorotridecanoic acid (PFTriA) | 65.1 | 79.4 | P/P | 30 - 160 |
| 2173850 | Perfluoroundecanoic acid (PFUnA) | 96.1 | 104 | P/P | 30 - 160 |

**Reference Method: EPA 8321B**
**Batch ID: P383141**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173845 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 116 | 111 | P/P | 40 - 160 |
| 2173845 | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 114 | 111 | P/P | 40 - 160 |

# Quality Assurance Report
# Matrix Spike Accuracy

**Reference Method: EPA 8321B**
**Batch ID: P383141**

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173845 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 93.2 | 92.6 | P/P | 40 - 160 |
| 2173845 | Hexafluoropropylene oxide dimer acid | 53.2 | 49.6 | P/P | 40 - 160 |
| 2173845 | N-Et perfluorooctanesulfonamidoAc acid | 110 | 107 | P/P | 40 - 160 |
| 2173845 | N-Me perfluorooctanesulfonamidoAc acid | 103 | 104 | P/P | 40 - 160 |
| 2173845 | Perfluorobutanesulfonic acid (PFBS) | 109 | 114 | P/P | 40 - 160 |
| 2173845 | Perfluorodecanesulfonic acid (PFDS) | 126 | 128 | P/P | 40 - 160 |
| 2173845 | Perfluorodecanoic acid (PFDA) | 99.8 | 97.6 | P/P | 40 - 160 |
| 2173845 | Perfluorododecanoic acid (PFDoA) | 90.7 | 107 | P/P | 40 - 160 |
| 2173845 | Perfluoroheptanesulfonic acid (PFHpS) | 112 | 115 | P/P | 40 - 160 |
| 2173845 | Perfluoroheptanoic acid (PFHpA) | 99.5 | 106 | P/P | 40 - 160 |
| 2173845 | Perfluorohexanesulfonic acid (PFHxS) | 114 | 125 | P/P | 40 - 160 |
| 2173845 | Perfluorohexanoic acid (PFHxA) | 119 | 104 | P/P | 40 - 160 |
| 2173845 | Perfluorononanesulfonic acid (PFNS) | 124 | 124 | P/P | 40 - 160 |
| 2173845 | Perfluorononanoic acid (PFNA) | 108 | 96.7 | P/P | 40 - 160 |
| 2173845 | Perfluorooctanesulfonic acid (PFOS) | 121 | 124 | P/P | 40 - 160 |
| 2173845 | Perfluorooctanoic acid (PFOA) | 101 | 88.6 | P/P | 40 - 160 |
| 2173845 | Perfluoropentanesulfonic acid (PFPeS) | 116 | 119 | P/P | 40 - 160 |
| 2173845 | Perfluoropentanoic acid (PFPeA) | 104 | 106 | P/P | 40 - 160 |
| 2173845 | Perfluorotetradecanoic acid (PFTeA) | 75.8 | 97.1 | P/P | 40 - 160 |
| 2173845 | Perfluorotridecanoic acid (PFTriA) | 85.9 | 87.9 | P/P | 40 - 160 |
| 2173845 | Perfluoroundecanoic acid (PFUnA) | 97.2 | 91.1 | P/P | 40 - 160 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 6020A**
**Batch ID: P382825**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173209 | Arsenic | 1.62 | Spike | P | 0 - 20 |
| 2173209 | Barium | 1.78 | Spike | P | 0 - 20 |
| 2173209 | Cadmium | 2.18 | Spike | P | 0 - 20 |
| 2173209 | Chromium | 0.248 | Spike | P | 0 - 20 |
| 2173209 | Lead | 0.0290 | Spike | P | 0 - 20 |
| 2173209 | Selenium | 1.01 | Spike | P | 0 - 20 |
| 2173209 | Silver | 0.756 | Spike | P | 0 - 20 |

**Reference Method: EPA 6020A**
**Batch ID: P383389**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173844 | Arsenic | 1.94 | Spike | P | 0 - 20 |
| 2173844 | Barium | 1.79 | Spike | P | 0 - 20 |
| 2173844 | Cadmium | 2.49 | Spike | P | 0 - 20 |
| 2173844 | Chromium | 2.96 | Spike | P | 0 - 20 |
| 2173844 | Lead | 2.59 | Spike | P | 0 - 20 |
| 2173844 | Selenium | 2.70 | Spike | P | 0 - 20 |
| 2173844 | Silver | 2.56 | Spike | P | 0 - 20 |

**Reference Method: EPA 7473**
**Batch ID: P382894**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2174538 | Mercury | 1.31 | Spike | P | 0 - 20 |

**Reference Method: EPA 7473**
**Batch ID: P383122**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173843 | Mercury | 0.540 | Spike | P | 0 - 20 |

**Reference Method: EPA 8260D**
**Batch ID: P382695**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173362 | 1,1-Dichloroethane | 2.99 | Spike | P | 0 - 30 |
| 2173362 | 1,1-Dichloroethene | 3.06 | Spike | P | 0 - 30 |
| 2173362 | 1,1,1-Trichloroethane | 2.92 | Spike | P | 0 - 30 |
| 2173362 | 1,1,2-Trichloroethane | 3.50 | Spike | P | 0 - 30 |
| 2173362 | 1,1,2,2-Tetrachloroethane | 2.85 | Spike | P | 0 - 30 |
| 2173362 | 1,2-Dichlorobenzene | 3.66 | Spike | P | 0 - 30 |
| 2173362 | 1,2-Dichloroethane | 2.37 | Spike | P | 0 - 30 |
| 2173362 | 1,2-Dichloropropane | 2.80 | Spike | P | 0 - 30 |
| 2173362 | 1,3-Dichlorobenzene | 3.29 | Spike | P | 0 - 30 |
| 2173362 | 1,4-Dichlorobenzene | 3.37 | Spike | P | 0 - 30 |
| 2173362 | 2-Butanone | 2.09 | Spike | P | 0 - 40 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 8260D**
**Batch ID: P382695**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173362 | Benzene | 2.56 | Spike | P | 0 - 30 |
| 2173362 | Bromodichloromethane | 2.43 | Spike | P | 0 - 30 |
| 2173362 | Bromoform | 2.79 | Spike | P | 0 - 30 |
| 2173362 | Bromomethane | 1.09 | Spike | P | 0 - 40 |
| 2173362 | Carbon tetrachloride | 2.35 | Spike | P | 0 - 30 |
| 2173362 | Chlorobenzene | 2.73 | Spike | P | 0 - 30 |
| 2173362 | Chloroethane | 2.42 | Spike | P | 0 - 40 |
| 2173362 | Chloroform | 2.10 | Spike | P | 0 - 30 |
| 2173362 | Chloromethane | 3.74 | Spike | P | 0 - 40 |
| 2173362 | cis-1,2-Dichloroethene | 2.72 | Spike | P | 0 - 30 |
| 2173362 | cis-1,3-Dichloropropene | 2.74 | Spike | P | 0 - 30 |
| 2173362 | Dibromochloromethane | 1.75 | Spike | P | 0 - 30 |
| 2173362 | Ethylbenzene | 2.90 | Spike | P | 0 - 30 |
| 2173362 | m,p-Xylene | 1.62 | Spike | P | 0 - 30 |
| 2173362 | Methyl-t-butyl ether | 2.37 | Spike | P | 0 - 30 |
| 2173362 | Methylene chloride | 2.49 | Spike | P | 0 - 30 |
| 2173362 | o-Xylene | 2.49 | Spike | P | 0 - 30 |
| 2173362 | Tetrachloroethene | 1.50 | Spike | P | 0 - 30 |
| 2173362 | Toluene | 3.17 | Spike | P | 0 - 30 |
| 2173362 | trans-1,2-Dichloroethene | 2.40 | Spike | P | 0 - 30 |
| 2173362 | trans-1,3-Dichloropropene | 2.26 | Spike | P | 0 - 30 |
| 2173362 | Trichloroethene | 1.61 | Spike | P | 0 - 30 |
| 2173362 | Trichlorofluoromethane | 2.22 | Spike | P | 0 - 40 |
| 2173362 | Vinyl chloride | 2.62 | Spike | P | 0 - 40 |
| LFB | 1,1-Dichloroethane | 1.81 | LCS | P | 0 - 30 |
| LFB | 1,1-Dichloroethene | 1.45 | LCS | P | 0 - 30 |
| LFB | 1,1,1-Trichloroethane | 1.65 | LCS | P | 0 - 30 |
| LFB | 1,1,2-Trichloroethane | 1.93 | LCS | P | 0 - 30 |
| LFB | 1,1,2,2-Tetrachloroethane | 5.26 | LCS | P | 0 - 30 |
| LFB | 1,2-Dichlorobenzene | 3.64 | LCS | P | 0 - 30 |
| LFB | 1,2-Dichloroethane | 0.827 | LCS | P | 0 - 30 |
| LFB | 1,2-Dichloropropane | 2.38 | LCS | P | 0 - 30 |
| LFB | 1,3-Dichlorobenzene | 2.40 | LCS | P | 0 - 30 |
| LFB | 1,4-Dichlorobenzene | 2.59 | LCS | P | 0 - 30 |
| LFB | 2-Butanone | 3.63 | LCS | P | 0 - 40 |
| LFB | Benzene | 2.16 | LCS | P | 0 - 30 |
| LFB | Bromodichloromethane | 1.74 | LCS | P | 0 - 30 |
| LFB | Bromoform | 1.96 | LCS | P | 0 - 30 |
| LFB | Bromomethane | 0.800 | LCS | P | 0 - 40 |
| LFB | Carbon tetrachloride | 1.37 | LCS | P | 0 - 30 |
| LFB | Chlorobenzene | 0.605 | LCS | P | 0 - 30 |
| LFB | Chloroethane | 0.720 | LCS | P | 0 - 40 |
| LFB | Chloroform | 1.02 | LCS | P | 0 - 30 |
| LFB | Chloromethane | 2.20 | LCS | P | 0 - 40 |
| LFB | cis-1,2-Dichloroethene | 0.986 | LCS | P | 0 - 30 |
| LFB | cis-1,3-Dichloropropene | 1.76 | LCS | P | 0 - 30 |
| LFB | Dibromochloromethane | 0.807 | LCS | P | 0 - 30 |
| LFB | Ethylbenzene | 0.638 | LCS | P | 0 - 30 |
| LFB | m,p-Xylene | 0.222 | LCS | P | 0 - 30 |
| LFB | Methyl-t-butyl ether | 2.67 | LCS | P | 0 - 30 |
| LFB | Methylene chloride | 0.548 | LCS | P | 0 - 30 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 8260D**
**Batch ID: P382695**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| LFB | o-Xylene | 0.632 | LCS | P | 0 - 30 |
| LFB | Tetrachloroethene | 0.0497 | LCS | P | 0 - 30 |
| LFB | Toluene | 2.11 | LCS | P | 0 - 30 |
| LFB | trans-1,2-Dichloroethene | 0.683 | LCS | P | 0 - 30 |
| LFB | trans-1,3-Dichloropropene | 1.11 | LCS | P | 0 - 30 |
| LFB | Trichloroethene | 0.534 | LCS | P | 0 - 30 |
| LFB | Trichlorofluoromethane | 0.511 | LCS | P | 0 - 40 |
| LFB | Vinyl chloride | 0.332 | LCS | P | 0 - 40 |

**Reference Method: EPA 8260D**
**Batch ID: P382817**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173846 | 1,1-Dichloroethane | 5.10 | Spike | P | 0 - 30 |
| 2173846 | 1,1-Dichloroethene | 5.67 | Spike | P | 0 - 30 |
| 2173846 | 1,1,1-Trichloroethane | 8.50 | Spike | P | 0 - 30 |
| 2173846 | 1,1,2-Trichloroethane | 9.18 | Spike | P | 0 - 30 |
| 2173846 | 1,1,2,2-Tetrachloroethane | 4.04 | Spike | P | 0 - 30 |
| 2173846 | 1,2-Dichlorobenzene | 7.16 | Spike | P | 0 - 30 |
| 2173846 | 1,2-Dichloroethane | 5.54 | Spike | P | 0 - 30 |
| 2173846 | 1,2-Dichloropropane | 6.92 | Spike | P | 0 - 30 |
| 2173846 | 1,3-Dichlorobenzene | 6.33 | Spike | P | 0 - 30 |
| 2173846 | 1,4-Dichlorobenzene | 4.55 | Spike | P | 0 - 30 |
| 2173846 | 2-Butanone | 17.0 | Spike | P | 0 - 30 |
| 2173846 | Benzene | 6.75 | Spike | P | 0 - 30 |
| 2173846 | Bromodichloromethane | 4.80 | Spike | P | 0 - 30 |
| 2173846 | Bromoform | 11.1 | Spike | P | 0 - 30 |
| 2173846 | Bromomethane | 6.99 | Spike | P | 0 - 30 |
| 2173846 | Carbon tetrachloride | 5.30 | Spike | P | 0 - 30 |
| 2173846 | Chlorobenzene | 8.12 | Spike | P | 0 - 30 |
| 2173846 | Chloroethane | 3.62 | Spike | P | 0 - 30 |
| 2173846 | Chloroform | 4.75 | Spike | P | 0 - 30 |
| 2173846 | Chloromethane | 3.66 | Spike | P | 0 - 30 |
| 2173846 | cis-1,2-Dichloroethene | 5.72 | Spike | P | 0 - 30 |
| 2173846 | cis-1,3-Dichloropropene | 6.34 | Spike | P | 0 - 30 |
| 2173846 | Dibromochloromethane | 8.20 | Spike | P | 0 - 30 |
| 2173846 | Ethylbenzene | 8.42 | Spike | P | 0 - 30 |
| 2173846 | m,p-Xylene | 9.98 | Spike | P | 0 - 30 |
| 2173846 | Methyl-t-butyl ether | 6.93 | Spike | P | 0 - 30 |
| 2173846 | Methylene chloride | 6.60 | Spike | P | 0 - 30 |
| 2173846 | o-Xylene | 10.9 | Spike | P | 0 - 30 |
| 2173846 | Tetrachloroethene | 7.36 | Spike | P | 0 - 30 |
| 2173846 | Toluene | 2.76 | Spike | P | 0 - 30 |
| 2173846 | trans-1,2-Dichloroethene | 5.31 | Spike | P | 0 - 30 |
| 2173846 | trans-1,3-Dichloropropene | 9.80 | Spike | P | 0 - 30 |
| 2173846 | Trichloroethene | 8.16 | Spike | P | 0 - 30 |
| 2173846 | Trichlorofluoromethane | 6.27 | Spike | P | 0 - 30 |
| 2173846 | Vinyl chloride | 3.60 | Spike | P | 0 - 30 |
| LFB | 1,1-Dichloroethane | 17.1 | LCS | P | 0 - 30 |
| LFB | 1,1-Dichloroethene | 13.7 | LCS | P | 0 - 30 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 8260D**
**Batch ID: P382817**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| LFB | 1,1,1-Trichloroethane | 13.6 | LCS | P | 0 - 30 |
| LFB | 1,1,2-Trichloroethane | 14.9 | LCS | P | 0 - 30 |
| LFB | 1,1,2,2-Tetrachloroethane | 15.6 | LCS | P | 0 - 30 |
| LFB | 1,2-Dichlorobenzene | 17.9 | LCS | P | 0 - 30 |
| LFB | 1,2-Dichloroethane | 16.2 | LCS | P | 0 - 30 |
| LFB | 1,2-Dichloropropane | 15.8 | LCS | P | 0 - 30 |
| LFB | 1,3-Dichlorobenzene | 15.2 | LCS | P | 0 - 30 |
| LFB | 1,4-Dichlorobenzene | 16.8 | LCS | P | 0 - 30 |
| LFB | 2-Butanone | 19.6 | LCS | P | 0 - 30 |
| LFB | Benzene | 16.0 | LCS | P | 0 - 30 |
| LFB | Bromodichloromethane | 19.5 | LCS | P | 0 - 30 |
| LFB | Bromoform | 18.1 | LCS | P | 0 - 30 |
| LFB | Bromomethane | 16.4 | LCS | P | 0 - 30 |
| LFB | Carbon tetrachloride | 15.5 | LCS | P | 0 - 30 |
| LFB | Chlorobenzene | 14.0 | LCS | P | 0 - 30 |
| LFB | Chloroethane | 16.7 | LCS | P | 0 - 30 |
| LFB | Chloroform | 15.1 | LCS | P | 0 - 30 |
| LFB | Chloromethane | 17.3 | LCS | P | 0 - 30 |
| LFB | cis-1,2-Dichloroethene | 15.9 | LCS | P | 0 - 30 |
| LFB | cis-1,3-Dichloropropene | 19.1 | LCS | P | 0 - 30 |
| LFB | Dibromochloromethane | 15.2 | LCS | P | 0 - 30 |
| LFB | Ethylbenzene | 13.6 | LCS | P | 0 - 30 |
| LFB | m,p-Xylene | 14.2 | LCS | P | 0 - 30 |
| LFB | Methyl-t-butyl ether | 18.6 | LCS | P | 0 - 30 |
| LFB | Methylene chloride | 20.0 | LCS | P | 0 - 30 |
| LFB | o-Xylene | 14.5 | LCS | P | 0 - 30 |
| LFB | Tetrachloroethene | 12.7 | LCS | P | 0 - 30 |
| LFB | Toluene | 15.7 | LCS | P | 0 - 30 |
| LFB | trans-1,2-Dichloroethene | 15.6 | LCS | P | 0 - 30 |
| LFB | trans-1,3-Dichloropropene | 16.4 | LCS | P | 0 - 30 |
| LFB | Trichloroethene | 13.6 | LCS | P | 0 - 30 |
| LFB | Trichlorofluoromethane | 13.3 | LCS | P | 0 - 30 |
| LFB | Vinyl chloride | 16.3 | LCS | P | 0 - 30 |

**Reference Method: EPA 8270E**
**Batch ID: P382654**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173746 | 1-Methylnaphthalene | 0.421 | Spike | P | 0 - 40 |
| 2173746 | 1-Naphthylamine | 16.6 | Spike | P | 0 - 40 |
| 2173746 | 1,2,4-Trichlorobenzene | 3.63 | Spike | P | 0 - 40 |
| 2173746 | 1,2,4,5-Tetrachlorobenzene | 5.18 | Spike | P | 0 - 40 |
| 2173746 | 1,3-Dinitrobenzene | 2.95 | Spike | P | 0 - 40 |
| 2173746 | 1,3,5-Trinitrobenzene | 3.08 | Spike | P | 0 - 40 |
| 2173746 | 2-Acetylaminofluorene | 4.77 | Spike | P | 0 - 40 |
| 2173746 | 2-Chloronaphthalene | 1.73 | Spike | P | 0 - 40 |
| 2173746 | 2-Chlorophenol | 1.36 | Spike | P | 0 - 40 |
| 2173746 | 2-Methyl-4,6-dinitrophenol | 4.77 | Spike | P | 0 - 40 |
| 2173746 | 2-Methylnaphthalene | 1.37 | Spike | P | 0 - 40 |
| 2173746 | 2-Naphthylamine | 10.9 | Spike | P | 0 - 40 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 8270E**
**Batch ID: P382654**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173746 | 2-Nitroaniline | 1.35 | Spike | P | 0 - 40 |
| 2173746 | 2-Nitrophenol | 0.282 | Spike | P | 0 - 40 |
| 2173746 | 2-Picoline | 1.90 | Spike | P | 0 - 40 |
| 2173746 | 2,3,4,6-Tetrachlorophenol | 2.09 | Spike | P | 0 - 40 |
| 2173746 | 2,4-Dichlorophenol | 0.326 | Spike | P | 0 - 40 |
| 2173746 | 2,4-Dimethylphenol | 23.6 | Spike | P | 0 - 40 |
| 2173746 | 2,4-Dinitrophenol | 2.29 | Spike | P | 0 - 40 |
| 2173746 | 2,4-Dinitrotoluene | 0.415 | Spike | P | 0 - 40 |
| 2173746 | 2,4,5-Trichlorophenol | 0.347 | Spike | P | 0 - 40 |
| 2173746 | 2,4,6-Trichlorophenol | 0.662 | Spike | P | 0 - 40 |
| 2173746 | 2,6-Dichlorophenol | 1.83 | Spike | P | 0 - 40 |
| 2173746 | 2,6-Dinitrotoluene | 1.50 | Spike | P | 0 - 40 |
| 2173746 | 3-Methylcholanthrene | 2.43 | Spike | P | 0 - 40 |
| 2173746 | 3,3'-Dichlorobenzidine | 0.244 | Spike | P | 0 - 40 |
| 2173746 | 4-Aminobiphenyl | 1.51 | Spike | P | 0 - 40 |
| 2173746 | 4-Bromophenyl phenyl ether | 3.82 | Spike | P | 0 - 40 |
| 2173746 | 4-Chloro-3-methylphenol | 0.964 | Spike | P | 0 - 40 |
| 2173746 | 4-Chlorophenyl phenyl ether | 1.42 | Spike | P | 0 - 40 |
| 2173746 | 4-Nitrophenol | 0.839 | Spike | P | 0 - 40 |
| 2173746 | 5-Nitro-o-toluidine | 2.11 | Spike | P | 0 - 40 |
| 2173746 | 7,12-Dimethylbenz(a)anthracene | 3.76 | Spike | P | 0 - 40 |
| 2173746 | Acenaphthene | 0.321 | Spike | P | 0 - 40 |
| 2173746 | Acenaphthylene | 0.228 | Spike | P | 0 - 40 |
| 2173746 | Acetophenone | 2.31 | Spike | P | 0 - 40 |
| 2173746 | Aniline | 4.08 | Spike | P | 0 - 40 |
| 2173746 | Anthracene | 5.17 | Spike | P | 0 - 40 |
| 2173746 | Azobenzene/1,2-Diphenylhydrazine | 2.76 | Spike | P | 0 - 40 |
| 2173746 | Benzidine | 27.6 | Spike | P | 0 - 40 |
| 2173746 | Benzo(a)anthracene | 3.42 | Spike | P | 0 - 40 |
| 2173746 | Benzo(a)pyrene | 0.723 | Spike | P | 0 - 40 |
| 2173746 | Benzo(b)fluoranthene | 0.335 | Spike | P | 0 - 40 |
| 2173746 | Benzo(g,h,i)perylene | 0.312 | Spike | P | 0 - 40 |
| 2173746 | Benzo(k)fluoranthene | 7.00 | Spike | P | 0 - 40 |
| 2173746 | Benzyl alcohol | 0.441 | Spike | P | 0 - 40 |
| 2173746 | Bis(2-chloroethoxy)methane | 0.661 | Spike | P | 0 - 40 |
| 2173746 | Bis(2-chloroethyl)ether | 0.236 | Spike | P | 0 - 40 |
| 2173746 | Bis(2-chloroisopropyl)ether | 2.10 | Spike | P | 0 - 40 |
| 2173746 | Bis(2-ethylhexyl)phthalate | 0.0854 | Spike | P | 0 - 40 |
| 2173746 | Butyl benzyl phthalate | 3.26 | Spike | P | 0 - 40 |
| 2173746 | Carbazole | 0.505 | Spike | P | 0 - 40 |
| 2173746 | Chrysene | 1.68 | Spike | P | 0 - 40 |
| 2173746 | Di-n-butyl phthalate | 1.42 | Spike | P | 0 - 40 |
| 2173746 | Di-n-octyl phthalate | 1.56 | Spike | P | 0 - 40 |
| 2173746 | Dibenzo(a,h)anthracene | 0.504 | Spike | P | 0 - 40 |
| 2173746 | Dibenzofuran | 0.844 | Spike | P | 0 - 40 |
| 2173746 | Diethyl phthalate | 1.94 | Spike | P | 0 - 40 |
| 2173746 | Dimethyl phthalate | 1.23 | Spike | P | 0 - 40 |
| 2173746 | Dimethylaminoazobenzene | 2.47 | Spike | P | 0 - 40 |
| 2173746 | Dinoseb | 4.52 | Spike | P | 0 - 40 |
| 2173746 | Ethyl methanesulfonate | 2.44 | Spike | P | 0 - 40 |
| 2173746 | Fluoranthene | 3.44 | Spike | P | 0 - 40 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 8270E**
**Batch ID: P382654**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173746 | Fluorene | 0.645 | Spike | P | 0 - 40 |
| 2173746 | Hexachlorobenzene | 3.93 | Spike | P | 0 - 40 |
| 2173746 | Hexachlorobutadiene | 8.10 | Spike | P | 0 - 40 |
| 2173746 | Hexachlorocyclopentadiene | 11.0 | Spike | P | 0 - 40 |
| 2173746 | Hexachloroethane | 10.0 | Spike | P | 0 - 40 |
| 2173746 | Hexachloropropene | 12.2 | Spike | P | 0 - 40 |
| 2173746 | Indeno(1,2,3-cd)pyrene | 0.417 | Spike | P | 0 - 40 |
| 2173746 | Isophorone | 0.584 | Spike | P | 0 - 40 |
| 2173746 | Isosafrole | 0.837 | Spike | P | 0 - 40 |
| 2173746 | m,p-Cresols | 1.59 | Spike | P | 0 - 40 |
| 2173746 | N-Nitrosodi-n-butylamine | 0.207 | Spike | P | 0 - 40 |
| 2173746 | N-Nitrosodi-n-propylamine | 3.38 | Spike | P | 0 - 40 |
| 2173746 | N-Nitrosodiethylamine | 3.44 | Spike | P | 0 - 40 |
| 2173746 | N-Nitrosodimethylamine | 0.644 | Spike | P | 0 - 40 |
| 2173746 | N-Nitrosodiphenylamine/ Diphenylamine | 0.599 | Spike | P | 0 - 40 |
| 2173746 | N-Nitrosomethylethylamine | 0.785 | Spike | P | 0 - 40 |
| 2173746 | N-Nitrosomorpholine | 2.68 | Spike | P | 0 - 40 |
| 2173746 | N-Nitrosopiperidine | 3.44 | Spike | P | 0 - 40 |
| 2173746 | N-Nitrosopyrrolidine | 1.98 | Spike | P | 0 - 40 |
| 2173746 | Naphthalene | 1.16 | Spike | P | 0 - 40 |
| 2173746 | Nitrobenzene | 0.828 | Spike | P | 0 - 40 |
| 2173746 | o-Cresol | 3.10 | Spike | P | 0 - 40 |
| 2173746 | o-Toluidine | 5.38 | Spike | P | 0 - 40 |
| 2173746 | Pentachlorobenzene | 3.33 | Spike | P | 0 - 40 |
| 2173746 | Pentachloroethane | 9.93 | Spike | P | 0 - 40 |
| 2173746 | Pentachloronitrobenzene | 1.00 | Spike | P | 0 - 40 |
| 2173746 | Pentachlorophenol | 8.13 | Spike | P | 0 - 40 |
| 2173746 | Phenacetin | 0.423 | Spike | P | 0 - 40 |
| 2173746 | Phenanthrene | 3.27 | Spike | P | 0 - 40 |
| 2173746 | Phenol | 2.47 | Spike | P | 0 - 40 |
| 2173746 | Pyrene | 4.03 | Spike | P | 0 - 40 |
| 2173746 | Pyridine | 0.177 | Spike | P | 0 - 40 |
| 2173746 | Safrole | 0.299 | Spike | P | 0 - 40 |

**Reference Method: EPA 8270E**
**Batch ID: P382655**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173842 | 1,2,4-Trichlorobenzene | 9.57 | Spike | P | 0 - 40 |
| 2173842 | 2-Chloronaphthalene | 3.03 | Spike | P | 0 - 40 |
| 2173842 | 2-Chlorophenol | 3.63 | Spike | P | 0 - 40 |
| 2173842 | 2-Methyl-4,6-dinitrophenol | 3.11 | Spike | P | 0 - 40 |
| 2173842 | 2-Nitrophenol | 6.04 | Spike | P | 0 - 40 |
| 2173842 | 2,4-Dichlorophenol | 5.56 | Spike | P | 0 - 40 |
| 2173842 | 2,4-Dimethylphenol | 3.29 | Spike | P | 0 - 40 |
| 2173842 | 2,4-Dinitrophenol | 1.62 | Spike | P | 0 - 40 |
| 2173842 | 2,4-Dinitrotoluene | 0.841 | Spike | P | 0 - 40 |
| 2173842 | 2,4,6-Trichlorophenol | 0.208 | Spike | P | 0 - 40 |
| 2173842 | 2,6-Dinitrotoluene | 0.421 | Spike | P | 0 - 40 |
| 2173842 | 3,3'-Dichlorobenzidine | 0.283 | Spike | P | 0 - 40 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 8270E**
**Batch ID: P382655**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173842 | 4-Bromophenyl phenyl ether | 1.47 | Spike | P | 0 - 40 |
| 2173842 | 4-Chloro-3-methylphenol | 6.00 | Spike | P | 0 - 40 |
| 2173842 | 4-Chlorophenyl phenyl ether | 0.547 | Spike | P | 0 - 40 |
| 2173842 | 4-Nitrophenol | 5.19 | Spike | P | 0 - 40 |
| 2173842 | Acenaphthene | 2.73 | Spike | P | 0 - 40 |
| 2173842 | Acenaphthylene | 1.17 | Spike | P | 0 - 40 |
| 2173842 | Anthracene | 2.90 | Spike | P | 0 - 40 |
| 2173842 | Azobenzene/1,2-Diphenylhydrazine | 3.33 | Spike | P | 0 - 40 |
| 2173842 | Benzo(a)anthracene | 2.63 | Spike | P | 0 - 40 |
| 2173842 | Benzo(a)pyrene | 3.68 | Spike | P | 0 - 40 |
| 2173842 | Benzo(b)fluoranthene | 3.46 | Spike | P | 0 - 40 |
| 2173842 | Benzo(g,h,i)perylene | 3.56 | Spike | P | 0 - 40 |
| 2173842 | Benzo(k)fluoranthene | 13.6 | Spike | P | 0 - 40 |
| 2173842 | Bis(2-chloroethoxy)methane | 4.41 | Spike | P | 0 - 40 |
| 2173842 | Bis(2-chloroethyl)ether | 11.5 | Spike | P | 0 - 40 |
| 2173842 | Bis(2-chloroisopropyl)ether | 9.33 | Spike | P | 0 - 40 |
| 2173842 | Bis(2-ethylhexyl)phthalate | 3.41 | Spike | P | 0 - 40 |
| 2173842 | Butyl benzyl phthalate | 1.13 | Spike | P | 0 - 40 |
| 2173842 | Chrysene | 2.90 | Spike | P | 0 - 40 |
| 2173842 | Di-n-butyl phthalate | 2.67 | Spike | P | 0 - 40 |
| 2173842 | Di-n-octyl phthalate | 4.39 | Spike | P | 0 - 40 |
| 2173842 | Dibenzo(a,h)anthracene | 3.12 | Spike | P | 0 - 40 |
| 2173842 | Diethyl phthalate | 2.48 | Spike | P | 0 - 40 |
| 2173842 | Dimethyl phthalate | 0.395 | Spike | P | 0 - 40 |
| 2173842 | Fluoranthene | 1.71 | Spike | P | 0 - 40 |
| 2173842 | Fluorene | 0.979 | Spike | P | 0 - 40 |
| 2173842 | Hexachlorobenzene | 1.65 | Spike | P | 0 - 40 |
| 2173842 | Hexachlorobutadiene | 8.32 | Spike | P | 0 - 40 |
| 2173842 | Hexachlorocyclopentadiene | 15.4 | Spike | P | 0 - 40 |
| 2173842 | Hexachloroethane | 12.1 | Spike | P | 0 - 40 |
| 2173842 | Indeno(1,2,3-cd)pyrene | 3.54 | Spike | P | 0 - 40 |
| 2173842 | Isophorone | 6.81 | Spike | P | 0 - 40 |
| 2173842 | N-Nitrosodi-n-propylamine | 6.38 | Spike | P | 0 - 40 |
| 2173842 | N-Nitrosodimethylamine | 5.76 | Spike | P | 0 - 40 |
| 2173842 | N-Nitrosodiphenylamine/ Diphenylamine | 1.74 | Spike | P | 0 - 40 |
| 2173842 | Naphthalene | 7.82 | Spike | P | 0 - 40 |
| 2173842 | Nitrobenzene | 4.00 | Spike | P | 0 - 40 |
| 2173842 | Pentachlorophenol | 0.947 | Spike | P | 0 - 40 |
| 2173842 | Phenanthrene | 1.96 | Spike | P | 0 - 40 |
| 2173842 | Phenol | 0.801 | Spike | P | 0 - 40 |
| 2173842 | Pyrene | 0.231 | Spike | P | 0 - 40 |

**Reference Method: EPA 8321B**
**Batch ID: P382712**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173850 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 5.65 | Spike | P | 0 - 30 |
| 2173850 | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 0.697 | Spike | P | 0 - 30 |
| 2173850 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 10.1 | Spike | P | 0 - 30 |
| 2173850 | N-Et perfluorooctanesulfonamidoAc acid | 5.25 | Spike | P | 0 - 30 |

# Quality Assurance Report
# Precision

**Reference Method: EPA 8321B**
**Batch ID: P382712**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173850 | N-Me perfluorooctanesulfonamidoAc acid | 0.260 | Spike | P | 0 - 30 |
| 2173850 | Perfluorobutanesulfonic acid (PFBS) | 8.01 | Spike | P | 0 - 30 |
| 2173850 | Perfluorodecanesulfonic acid (PFDS) | 10.4 | Spike | P | 0 - 30 |
| 2173850 | Perfluorodecanoic acid (PFDA) | 4.40 | Spike | P | 0 - 30 |
| 2173850 | Perfluorododecanoic acid (PFDoA) | 14.8 | Spike | P | 0 - 30 |
| 2173850 | Perfluoroheptanesulfonic acid (PFHpS) | 9.16 | Spike | P | 0 - 30 |
| 2173850 | Perfluoroheptanoic acid (PFHpA) | 0.445 | Spike | P | 0 - 30 |
| 2173850 | Perfluorohexanesulfonic acid (PFHxS) | 5.87 | Spike | P | 0 - 30 |
| 2173850 | Perfluorohexanoic acid (PFHxA) | 2.78 | Spike | P | 0 - 30 |
| 2173850 | Perfluorononanesulfonic acid (PFNS) | 3.09 | Spike | P | 0 - 30 |
| 2173850 | Perfluorononanoic acid (PFNA) | 7.00 | Spike | P | 0 - 30 |
| 2173850 | Perfluorooctanesulfonic acid (PFOS) | 4.95 | Spike | P | 0 - 30 |
| 2173850 | Perfluorooctanoic acid (PFOA) | 2.06 | Spike | P | 0 - 30 |
| 2173850 | Perfluoropentanesulfonic acid (PFPeS) | 5.62 | Spike | P | 0 - 30 |
| 2173850 | Perfluoropentanoic acid (PFPeA) | 7.14 | Spike | P | 0 - 30 |
| 2173850 | Perfluorotetradecanoic acid (PFTeA) | 1.11 | Spike | P | 0 - 30 |
| 2173850 | Perfluorotridecanoic acid (PFTriA) | 19.9 | Spike | P | 0 - 30 |
| 2173850 | Perfluoroundecanoic acid (PFUnA) | 7.69 | Spike | P | 0 - 30 |

**Reference Method: EPA 8321B**
**Batch ID: P383141**

| Replicated Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|---|---|---|---|---|---|
| 2173845 | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 4.41 | Spike | P | 0 - 35 |
| 2173845 | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 2.17 | Spike | P | 0 - 35 |
| 2173845 | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 0.643 | Spike | P | 0 - 35 |
| 2173845 | Hexafluoropropylene oxide dimer acid | 6.97 | Spike | P | 0 - 35 |
| 2173845 | N-Et perfluorooctanesulfonamidoAc acid | 3.30 | Spike | P | 0 - 35 |
| 2173845 | N-Me perfluorooctanesulfonamidoAc acid | 0.782 | Spike | P | 0 - 35 |
| 2173845 | Perfluorobutanesulfonic acid (PFBS) | 3.93 | Spike | P | 0 - 35 |
| 2173845 | Perfluorodecanesulfonic acid (PFDS) | 1.47 | Spike | P | 0 - 35 |
| 2173845 | Perfluorodecanoic acid (PFDA) | 2.26 | Spike | P | 0 - 35 |
| 2173845 | Perfluorododecanoic acid (PFDoA) | 16.4 | Spike | P | 0 - 35 |
| 2173845 | Perfluoroheptanesulfonic acid (PFHpS) | 2.75 | Spike | P | 0 - 35 |
| 2173845 | Perfluoroheptanoic acid (PFHpA) | 6.67 | Spike | P | 0 - 35 |
| 2173845 | Perfluorohexanesulfonic acid (PFHxS) | 9.26 | Spike | P | 0 - 35 |
| 2173845 | Perfluorohexanoic acid (PFHxA) | 13.4 | Spike | P | 0 - 35 |
| 2173845 | Perfluorononanesulfonic acid (PFNS) | 0.00727 | Spike | P | 0 - 35 |
| 2173845 | Perfluorononanoic acid (PFNA) | 10.8 | Spike | P | 0 - 35 |
| 2173845 | Perfluorooctanesulfonic acid (PFOS) | 2.43 | Spike | P | 0 - 35 |
| 2173845 | Perfluorooctanoic acid (PFOA) | 13.2 | Spike | P | 0 - 35 |
| 2173845 | Perfluoropentanesulfonic acid (PFPeS) | 2.61 | Spike | P | 0 - 35 |
| 2173845 | Perfluoropentanoic acid (PFPeA) | 1.96 | Spike | P | 0 - 35 |
| 2173845 | Perfluorotetradecanoic acid (PFTeA) | 24.6 | Spike | P | 0 - 35 |
| 2173845 | Perfluorotridecanoic acid (PFTriA) | 2.34 | Spike | P | 0 - 35 |
| 2173845 | Perfluoroundecanoic acid (PFUnA) | 6.42 | Spike | P | 0 - 35 |

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173842**
**Field Sample ID: IDW-Soil**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8270E | 2-Fluorobiphenyl | 74.8 | P | 30 - 150 |
| EPA 8270E | 2-Fluorophenol | 48.4 | P | 20 - 150 |
| EPA 8270E | 2,4,6-Tribromophenol | 102 | P | 30 - 150 |
| EPA 8270E | Nitrobenzene-d5 | 65.8 | P | 30 - 150 |
| EPA 8270E | Phenol-d5 | 59.2 | P | 20 - 150 |
| EPA 8270E | Terphenyl-d14 | 79.0 | P | 30 - 150 |

**Lab Sample ID: 2173845**
**Field Sample ID: IDW-Soil**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Hexafluoropropylene oxide dimer acid-13C | 72.5 | P | 30 - 160 |
| EPA 8321B | Perfluorobutanesulfonate-13C | 74.3 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 78.9 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 85.9 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 68.2 | P | 30 - 160 |

**Lab Sample ID: 2173846**
**Field Sample ID: IDW-Soil**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8260D | 1,2-Dichloroethane-d4 | 102 | P | 70 - 130 |
| EPA 8260D | 1,2-Dichloroethane-d4 | 102 | P | 70 - 130 |
| EPA 8260D | 1,4-Dichlorobenzene-d4 | 97.5 | P | 70 - 130 |
| EPA 8260D | 1,4-Dichlorobenzene-d4 | 97.5 | P | 70 - 130 |
| EPA 8260D | Dibromofluoromethane | 103 | P | 70 - 130 |
| EPA 8260D | Dibromofluoromethane | 103 | P | 70 - 130 |
| EPA 8260D | Toluene-d8 | 95.6 | P | 70 - 130 |
| EPA 8260D | Toluene-d8 | 95.6 | P | 70 - 130 |

**Lab Sample ID: 2173847**
**Field Sample ID: IDW-Water**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8270E | 2-Fluorobiphenyl | 62.2 | P | 30 - 150 |
| EPA 8270E | 2-Fluorophenol | 48.5 | P | 20 - 150 |
| EPA 8270E | 2,4,6-Tribromophenol | 75.0 | P | 30 - 150 |
| EPA 8270E | Nitrobenzene-d5 | 64.6 | P | 30 - 150 |
| EPA 8270E | Phenol-d5 | 41.2 | P | 20 - 150 |
| EPA 8270E | Terphenyl-d14 | 81.0 | P | 30 - 150 |

**Lab Sample ID: 2173850**
**Field Sample ID: IDW-Water**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8321B | Perfluorobutanesulfonate-13C | 87.0 | P | 30 - 160 |
| EPA 8321B | Perfluorodecanoic acid-13C | 91.4 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanesulfonate-13C | 74.8 | P | 30 - 160 |
| EPA 8321B | Perfluorohexanoic acid-13C | 90.7 | P | 30 - 160 |

# Quality Assurance Report
# Surrogates

**Lab Sample ID: 2173851**
**Field Sample ID: IDW-Water**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8260D | 1,2-Dichloroethane-d4 | 103 | P | 70 - 130 |
| EPA 8260D | 1,4-Dichlorobenzene-d4 | 101 | P | 70 - 130 |
| EPA 8260D | Dibromofluoromethane | 101 | P | 70 - 130 |
| EPA 8260D | Toluene-d8 | 96.6 | P | 70 - 130 |

**Lab Sample ID: 2173852**
**Field Sample ID: Trip Blank**

| Reference Method | Surrogate | % Rec. | Pass/Fail | Control Limits |
|---|---|---|---|---|
| EPA 8260D | 1,2-Dichloroethane-d4 | 105 | P | 70 - 130 |
| EPA 8260D | 1,4-Dichlorobenzene-d4 | 98.2 | P | 70 - 130 |
| EPA 8260D | Dibromofluoromethane | 102 | P | 70 - 130 |
| EPA 8260D | Toluene-d8 | 97.4 | P | 70 - 130 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8260D**
**Run ID: A99140**
**Included Lab Sample IDs: 2173851, 2173852**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 1,1-Dichloroethane | 104 | | P | 80 - 120 |
| 1,1-Dichloroethene | 101 | | P | 80 - 120 |
| 1,1,1-Trichloroethane | 102 | | P | 80 - 120 |
| 1,1,2-Trichloroethane | 97.6 | | P | 80 - 120 |
| 1,1,2,2-Tetrachloroethane | 97.5 | | P | 80 - 120 |
| 1,2-Dichlorobenzene | 101 | | P | 80 - 120 |
| 1,2-Dichloroethane | 102 | | P | 80 - 120 |
| 1,2-Dichloropropane | 99.2 | | P | 80 - 120 |
| 1,3-Dichlorobenzene | 101 | | P | 80 - 120 |
| 1,4-Dichlorobenzene | 99.4 | | P | 80 - 120 |
| 2-Butanone | 94.6 | | P | 70 - 130 |
| Benzene | 103 | | P | 80 - 120 |
| Bromodichloromethane | 95.4 | | P | 80 - 120 |
| Bromoform | 96.8 | | P | 80 - 120 |
| Bromomethane | 109 | | P | 70 - 130 |
| Carbon tetrachloride | 103 | | P | 80 - 120 |
| Chlorobenzene | 99.7 | | P | 80 - 120 |
| Chloroethane | 102 | | P | 70 - 130 |
| Chloroform | 103 | | P | 80 - 120 |
| Chloromethane | 103 | | P | 70 - 130 |
| cis-1,2-Dichloroethene | 99.8 | | P | 80 - 120 |
| cis-1,3-Dichloropropene | 93.9 | | P | 80 - 120 |
| Dibromochloromethane | 99.0 | | P | 80 - 120 |
| Ethylbenzene | 100 | | P | 80 - 120 |
| m,p-Xylene | 100 | | P | 80 - 120 |
| Methyl-t-butyl ether | 104 | | P | 80 - 120 |
| Methylene chloride | 100 | | P | 80 - 120 |
| o-Xylene | 102 | | P | 80 - 120 |
| Tetrachloroethene | 97.8 | | P | 80 - 120 |
| Toluene | 99.9 | | P | 80 - 120 |
| trans-1,2-Dichloroethene | 101 | | P | 80 - 120 |
| trans-1,3-Dichloropropene | 94.4 | | P | 80 - 120 |
| Trichloroethene | 103 | | P | 80 - 120 |
| Trichlorofluoromethane | 105 | | P | 70 - 130 |
| Vinyl chloride | 98.7 | | P | 70 - 130 |

**Reference Method: EPA 8270E**
**Run ID: A99151**
**Included Lab Sample IDs: 2173842**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 95.1 | | P | 70 - 130 |
| 2-Chloronaphthalene | 96.4 | | P | 70 - 130 |
| 2-Chlorophenol | 101 | | P | 70 - 130 |
| 2-Methyl-4,6-dinitrophenol | 98.0 | | P | 70 - 130 |
| 2-Nitrophenol | 94.6 | | P | 70 - 130 |
| 2,4-Dichlorophenol | 94.7 | | P | 70 - 130 |
| 2,4-Dimethylphenol | 97.1 | | P | 70 - 130 |
| 2,4-Dinitrophenol | 83.7 | | P | 70 - 130 |
| 2,4-Dinitrotoluene | 96.9 | | P | 70 - 130 |
| 2,4,6-Trichlorophenol | 94.2 | | P | 70 - 130 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8270E**
**Run ID: A99151**
**Included Lab Sample IDs: 2173842**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 2,6-Dinitrotoluene | 97.0 | | P | 70 - 130 |
| 3,3'-Dichlorobenzidine | 80.4 | | P | 50 - 130 |
| 4-Bromophenyl phenyl ether | 100 | | P | 70 - 130 |
| 4-Chloro-3-methylphenol | 95.4 | | P | 70 - 130 |
| 4-Chlorophenyl phenyl ether | 93.6 | | P | 70 - 130 |
| 4-Nitrophenol | 90.7 | | P | 70 - 130 |
| Acenaphthene | 104 | | P | 70 - 130 |
| Acenaphthylene | 107 | | P | 70 - 130 |
| Anthracene | 114 | | P | 70 - 130 |
| Azobenzene/1,2-Diphenylhydrazine | 94.2 | | P | 70 - 130 |
| Benzidine | 57.9 | | P | 50 - 130 |
| Benzo(a)anthracene | 99.2 | | P | 70 - 130 |
| Benzo(a)pyrene | 105 | | P | 70 - 130 |
| Benzo(b)fluoranthene | 98.8 | | P | 70 - 130 |
| Benzo(g,h,i)perylene | 104 | | P | 70 - 130 |
| Benzo(k)fluoranthene | 118 | | P | 70 - 130 |
| Bis(2-chloroethoxy)methane | 94.3 | | P | 70 - 130 |
| Bis(2-chloroethyl)ether | 108 | | P | 70 - 130 |
| Bis(2-chloroisopropyl)ether | 101 | | P | 70 - 130 |
| Bis(2-ethylhexyl)phthalate | 98.5 | | P | 70 - 130 |
| Butyl benzyl phthalate | 98.2 | | P | 70 - 130 |
| Chrysene | 103 | | P | 70 - 130 |
| Di-n-butyl phthalate | 99.6 | | P | 70 - 130 |
| Di-n-octyl phthalate | 98.7 | | P | 70 - 130 |
| Dibenzo(a,h)anthracene | 97.8 | | P | 70 - 130 |
| Diethyl phthalate | 96.6 | | P | 70 - 130 |
| Dimethyl phthalate | 95.9 | | P | 70 - 130 |
| Fluoranthene | 109 | | P | 70 - 130 |
| Fluorene | 111 | | P | 70 - 130 |
| Hexachlorobenzene | 97.1 | | P | 70 - 130 |
| Hexachlorobutadiene | 93.6 | | P | 70 - 130 |
| Hexachlorocyclopentadiene | 85.6 | | P | 70 - 130 |
| Hexachloroethane | 108 | | P | 70 - 130 |
| Indeno(1,2,3-cd)pyrene | 104 | | P | 70 - 130 |
| Isophorone | 96.2 | | P | 70 - 130 |
| N-Nitrosodi-n-propylamine | 99.6 | | P | 70 - 130 |
| N-Nitrosodimethylamine | 96.9 | | P | 70 - 130 |
| N-Nitrosodiphenylamine/ Diphenylamine | 104 | | P | 70 - 130 |
| Naphthalene | 104 | | P | 70 - 130 |
| Nitrobenzene | 92.5 | | P | 70 - 130 |
| Pentachlorophenol | 96.8 | | P | 70 - 130 |
| Phenanthrene | 106 | | P | 70 - 130 |
| Phenol | 95.2 | | P | 70 - 130 |
| Pyrene | 103 | | P | 70 - 130 |

**Reference Method: EPA 8260D**
**Run ID: A99167**
**Included Lab Sample IDs: 2173846**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 1,1-Dichloroethane | 95.9 | | P | 70 - 130 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8260D**
**Run ID: A99167**
**Included Lab Sample IDs: 2173846**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 1,1-Dichloroethene | 101 | | P | 70 - 130 |
| 1,1,1-Trichloroethane | 104 | | P | 70 - 130 |
| 1,1,2-Trichloroethane | 95.1 | | P | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 98.8 | | P | 70 - 130 |
| 1,2-Dichlorobenzene | 106 | | P | 70 - 130 |
| 1,2-Dichloroethane | 93.2 | | P | 70 - 130 |
| 1,2-Dichloropropane | 88.3 | | P | 70 - 130 |
| 1,3-Dichlorobenzene | 106 | | P | 70 - 130 |
| 1,4-Dichlorobenzene | 111 | | P | 70 - 130 |
| 2-Butanone | 98.8 | | P | 70 - 130 |
| Benzene | 97.4 | | P | 70 - 130 |
| Bromodichloromethane | 99.5 | | P | 70 - 130 |
| Bromoform | 99.4 | | P | 70 - 130 |
| Bromomethane | 96.5 | | P | 70 - 130 |
| Carbon tetrachloride | 106 | | P | 70 - 130 |
| Chlorobenzene | 99.2 | | P | 70 - 130 |
| Chloroethane | 102 | | P | 70 - 130 |
| Chloroform | 99.1 | | P | 70 - 130 |
| Chloromethane | 94.6 | | P | 70 - 130 |
| cis-1,2-Dichloroethene | 96.2 | | P | 70 - 130 |
| cis-1,3-Dichloropropene | 102 | | P | 70 - 130 |
| Dibromochloromethane | 101 | | P | 70 - 130 |
| Ethylbenzene | 103 | | P | 70 - 130 |
| m,p-Xylene | 105 | | P | 70 - 130 |
| Methyl-t-butyl ether | 97.8 | | P | 70 - 130 |
| Methylene chloride | 101 | | P | 70 - 130 |
| o-Xylene | 104 | | P | 70 - 130 |
| Tetrachloroethene | 106 | | P | 70 - 130 |
| Toluene | 96.1 | | P | 70 - 130 |
| trans-1,2-Dichloroethene | 100 | | P | 70 - 130 |
| trans-1,3-Dichloropropene | 107 | | P | 70 - 130 |
| Trichloroethene | 101 | | P | 70 - 130 |
| Trichlorofluoromethane | 109 | | P | 70 - 130 |
| Vinyl chloride | 95.3 | | P | 70 - 130 |

**Reference Method: EPA 8321B**
**Run ID: A99187**
**Included Lab Sample IDs: 2173850**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 104 | 104 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 75.6 | 82.5 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 82.1 | 80.0 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 84.6 | 84.4 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 81.2 | 83.4 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 100 | 103 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 101 | 100 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 82.4 | 95.3 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 89.6 | 113 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 99.9 | 102 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 95.8 | 121 | P/P | 60 - 160 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8321B**
**Run ID: A99187**
**Included Lab Sample IDs: 2173850**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Perfluorohexanesulfonic acid (PFHxS) | 84.4 | 85.8 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 84.3 | 101 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 110 | 115 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 74.3 | 97.0 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 98.9 | 105 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 82.8 | 92.5 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 102 | 104 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 90.2 | 98.5 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 84.1 | 85.8 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 72.2 | 74.6 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 96.9 | 95.0 | P/P | 60 - 160 |

**Reference Method: EPA 6020A**
**Run ID: A99194**
**Included Lab Sample IDs: 2173849**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Arsenic | 102 | 100 | P/P | 90 - 110 |
| Barium | 102 | 100 | P/P | 90 - 110 |
| Cadmium | 103 | 101 | P/P | 90 - 110 |
| Chromium | 96.4 | 96.7 | P/P | 90 - 110 |
| Selenium | 100 | 100 | P/P | 90 - 110 |

**Reference Method: EPA 7473**
**Run ID: A99198**
**Included Lab Sample IDs: 2173848**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Mercury | 95.2 | 104 | P/P | 80 - 120 |

**Reference Method: EPA 8270E**
**Run ID: A99214**
**Included Lab Sample IDs: 2173847**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 1-Naphthylamine | 77.0 | | P | 60 - 130 |
| 2-Acetylaminofluorene | 105 | | P | 70 - 150 |
| 2-Methyl-4,6-dinitrophenol | 87.9 | | P | 70 - 130 |
| 2-Naphthylamine | 105 | | P | 60 - 130 |
| 2-Picoline | 104 | | P | 70 - 130 |
| 2,4-Dinitrophenol | 73.1 | | P | 70 - 130 |
| 3,3'-Dichlorobenzidine | 85.1 | | P | 50 - 130 |
| 4-Aminobiphenyl | 81.5 | | P | 70 - 130 |
| 4-Nitrophenol | 100 | | P | 70 - 130 |
| Aniline | 79.4 | | P | 70 - 130 |
| Benzidine | 50.4 | | P | 50 - 130 |
| Bis(2-chloroisopropyl)ether | 96.3 | | P | 70 - 130 |
| Bis(2-ethylhexyl)phthalate | 97.9 | | P | 70 - 130 |
| Butyl benzyl phthalate | 99.4 | | P | 70 - 130 |
| Di-n-butyl phthalate | 94.4 | | P | 70 - 130 |
| Diethyl phthalate | 100 | | P | 70 - 130 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8270E**
**Run ID: A99214**
**Included Lab Sample IDs: 2173847**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Dinoseb | 95.4 | | P | 70 - 130 |
| Ethyl methanesulfonate | 97.0 | | P | 70 - 130 |
| N-Nitrosodiethylamine | 101 | | P | 70 - 130 |
| N-Nitrosodimethylamine | 92.5 | | P | 70 - 130 |
| N-Nitrosomethylethylamine | 108 | | P | 70 - 130 |
| Pentachlorophenol | 97.0 | | P | 70 - 130 |
| Phenacetin | 103 | | P | 70 - 130 |
| Pyridine | 94.1 | | P | 70 - 130 |

**Reference Method: EPA 6020A**
**Run ID: A99215**
**Included Lab Sample IDs: 2173849**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Lead | 100 | 100 | P/P | 90 - 110 |
| Silver | 103 | 103 | P/P | 90 - 110 |

**Reference Method: EPA 8270E**
**Run ID: A99221**
**Included Lab Sample IDs: 2173847**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 1-Methylnaphthalene | 91.4 | | P | 70 - 130 |
| 1,2,4-Trichlorobenzene | 99.4 | | P | 70 - 130 |
| 1,2,4,5-Tetrachlorobenzene | 92.6 | | P | 70 - 130 |
| 1,3-Dinitrobenzene | 88.1 | | P | 70 - 130 |
| 1,3,5-Trinitrobenzene | 84.4 | | P | 70 - 130 |
| 2-Chloronaphthalene | 94.6 | | P | 70 - 130 |
| 2-Chlorophenol | 94.5 | | P | 70 - 130 |
| 2-Methylnaphthalene | 93.4 | | P | 70 - 130 |
| 2-Nitroaniline | 93.2 | | P | 70 - 130 |
| 2-Nitrophenol | 92.9 | | P | 70 - 130 |
| 2,3,4,6-Tetrachlorophenol | 89.9 | | P | 70 - 130 |
| 2,4-Dichlorophenol | 77.3 | | P | 70 - 130 |
| 2,4-Dimethylphenol | 95.5 | | P | 70 - 130 |
| 2,4-Dinitrotoluene | 95.5 | | P | 70 - 130 |
| 2,4,5-Trichlorophenol | 96.7 | | P | 70 - 130 |
| 2,4,6-Trichlorophenol | 91.1 | | P | 70 - 130 |
| 2,6-Dichlorophenol | 96.2 | | P | 70 - 130 |
| 2,6-Dinitrotoluene | 95.9 | | P | 70 - 130 |
| 3-Methylcholanthrene | 98.9 | | P | 70 - 130 |
| 4-Bromophenyl phenyl ether | 93.7 | | P | 70 - 130 |
| 4-Chloro-3-methylphenol | 90.2 | | P | 70 - 130 |
| 4-Chlorophenyl phenyl ether | 94.3 | | P | 70 - 130 |
| 5-Nitro-o-toluidine | 88.0 | | P | 70 - 130 |
| 7,12-Dimethylbenz(a)anthracene | 92.9 | | P | 70 - 130 |
| Acenaphthene | 94.2 | | P | 70 - 130 |
| Acenaphthylene | 96.3 | | P | 70 - 130 |
| Acetophenone | 97.0 | | P | 70 - 130 |
| Anthracene | 93.1 | | P | 70 - 130 |
| Azobenzene/1,2-Diphenylhydrazine | 97.8 | | P | 70 - 130 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8270E**
**Run ID: A99221**
**Included Lab Sample IDs: 2173847**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Benzo(a)anthracene | 94.9 | | P | 70 - 130 |
| Benzo(a)pyrene | 96.1 | | P | 70 - 130 |
| Benzo(b)fluoranthene | 85.8 | | P | 70 - 130 |
| Benzo(g,h,i)perylene | 94.4 | | P | 70 - 130 |
| Benzo(k)fluoranthene | 122 | | P | 70 - 130 |
| Benzyl alcohol | 91.8 | | P | 70 - 130 |
| Bis(2-chloroethoxy)methane | 92.8 | | P | 70 - 130 |
| Bis(2-chloroethyl)ether | 94.8 | | P | 70 - 130 |
| Carbazole | 94.7 | | P | 70 - 130 |
| Chrysene | 95.2 | | P | 70 - 130 |
| Di-n-octyl phthalate | 96.5 | | P | 70 - 130 |
| Dibenzo(a,h)anthracene | 94.3 | | P | 70 - 130 |
| Dibenzofuran | 97.4 | | P | 70 - 130 |
| Dimethyl phthalate | 95.0 | | P | 70 - 130 |
| Dimethylaminoazobenzene | 98.0 | | P | 70 - 130 |
| Fluoranthene | 97.1 | | P | 70 - 130 |
| Fluorene | 95.7 | | P | 70 - 130 |
| Hexachlorobenzene | 95.9 | | P | 70 - 130 |
| Hexachlorobutadiene | 92.9 | | P | 70 - 130 |
| Hexachlorocyclopentadiene | 97.5 | | P | 70 - 130 |
| Hexachloroethane | 96.4 | | P | 70 - 130 |
| Hexachloropropene | 93.5 | | P | 70 - 130 |
| Indeno(1,2,3-cd)pyrene | 93.1 | | P | 70 - 130 |
| Isophorone | 97.2 | | P | 70 - 130 |
| Isosafrole | 95.6 | | P | 70 - 130 |
| m,p-Cresols | 88.3 | | P | 70 - 130 |
| N-Nitrosodi-n-butylamine | 97.2 | | P | 70 - 130 |
| N-Nitrosodi-n-propylamine | 96.6 | | P | 70 - 130 |
| N-Nitrosodiphenylamine/ Diphenylamine | 96.9 | | P | 70 - 130 |
| N-Nitrosomorpholine | 96.7 | | P | 70 - 130 |
| N-Nitrosopiperidine | 94.8 | | P | 70 - 130 |
| N-Nitrosopyrrolidine | 97.9 | | P | 70 - 130 |
| Naphthalene | 96.9 | | P | 70 - 130 |
| Nitrobenzene | 94.3 | | P | 70 - 130 |
| o-Cresol | 85.0 | | P | 70 - 130 |
| o-Toluidine | 93.2 | | P | 70 - 130 |
| Pentachlorobenzene | 89.3 | | P | 70 - 130 |
| Pentachloroethane | 87.8 | | P | 70 - 130 |
| Pentachloronitrobenzene | 96.4 | | P | 70 - 130 |
| Phenanthrene | 95.4 | | P | 70 - 130 |
| Phenol | 93.0 | | P | 70 - 130 |
| Pyrene | 95.8 | | P | 70 - 130 |
| Safrole | 96.4 | | P | 70 - 130 |

**Reference Method: EPA 7473**
**Run ID: A99288**
**Included Lab Sample IDs: 2173843**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Mercury | 101 | 96.2 | P/P | 90 - 110 |

# Quality Assurance Report
# Calibration Verification

**Reference Method: EPA 8321B**
**Run ID: A99400**
**Included Lab Sample IDs: 2173845**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| 4:2 Fluorotelomer sulfonate (4:2 FTS) | 105 | 106 | P/P | 60 - 160 |
| 6:2 Fluorotelomer sulfonate (6:2 FTS) | 119 | 118 | P/P | 60 - 160 |
| 8:2 Fluorotelomer sulfonate (8:2 FTS) | 93.7 | 98.4 | P/P | 60 - 160 |
| Hexafluoropropylene oxide dimer acid | 77.7 | 70.5 | P/P | 60 - 160 |
| N-Et perfluorooctanesulfonamidoAc acid | 104 | 103 | P/P | 60 - 160 |
| N-Me perfluorooctanesulfonamidoAc acid | 110 | 114 | P/P | 60 - 160 |
| Perfluorobutanesulfonic acid (PFBS) | 97.3 | 100 | P/P | 60 - 160 |
| Perfluorodecanesulfonic acid (PFDS) | 110 | 115 | P/P | 60 - 160 |
| Perfluorodecanoic acid (PFDA) | 85.0 | 75.1 | P/P | 60 - 160 |
| Perfluorododecanoic acid (PFDoA) | 72.0 | 91.8 | P/P | 60 - 160 |
| Perfluoroheptanesulfonic acid (PFHpS) | 103 | 100 | P/P | 60 - 160 |
| Perfluoroheptanoic acid (PFHpA) | 88.5 | 85.0 | P/P | 60 - 160 |
| Perfluorohexanesulfonic acid (PFHxS) | 99.9 | 111 | P/P | 60 - 160 |
| Perfluorohexanoic acid (PFHxA) | 95.9 | 88.3 | P/P | 60 - 160 |
| Perfluorononanesulfonic acid (PFNS) | 93.8 | 107 | P/P | 60 - 160 |
| Perfluorononanoic acid (PFNA) | 87.3 | 84.1 | P/P | 60 - 160 |
| Perfluorooctanesulfonic acid (PFOS) | 104 | 107 | P/P | 60 - 160 |
| Perfluorooctanoic acid (PFOA) | 94.3 | 84.3 | P/P | 60 - 160 |
| Perfluoropentanesulfonic acid (PFPeS) | 100 | 100 | P/P | 60 - 160 |
| Perfluoropentanoic acid (PFPeA) | 85.6 | 77.4 | P/P | 60 - 160 |
| Perfluorotetradecanoic acid (PFTeA) | 67.5 | 76.7 | P/P | 60 - 160 |
| Perfluorotridecanoic acid (PFTriA) | 87.9 | 62.8 | P/P | 60 - 160 |
| Perfluoroundecanoic acid (PFUnA) | 79.6 | 75.7 | P/P | 60 - 160 |

**Reference Method: EPA 6020A**
**Run ID: A99452**
**Included Lab Sample IDs: 2173844**

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---|---|---|---|---|
| Arsenic | 98.9 | 99.4 | P/P | 90 - 110 |
| Barium | 97.3 | 97.3 | P/P | 90 - 110 |
| Cadmium | 96.7 | 96.2 | P/P | 90 - 110 |
| Chromium | 101 | 101 | P/P | 90 - 110 |
| Lead | 97.1 | 97.4 | P/P | 90 - 110 |
| Selenium | 99.2 | 98.2 | P/P | 90 - 110 |
| Silver | 98.0 | 98.6 | P/P | 90 - 110 |

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | | MS % Recovery | | | Precision | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | LCS | SMP | MS |
| EPA 6020A | Arsenic | 108 | | 108 | 106 | 108 | | | 1.62 |
| | Arsenic | 97.7 | | 99.0 | 97.1 | | | | 1.94 |
| | Barium | 108 | | 105 | 103 | 106 | | | 1.78 |
| | Barium | 101 | | 103 | 101 | | | | 1.79 |
| | Cadmium | 106 | | 109 | 107 | 105 | | | 2.18 |
| | Cadmium | 97.2 | | 97.8 | 95.3 | | | | 2.49 |
| | Chromium | 105 | | 103 | 103 | 106 | | | 0.248 |
| | Chromium | 104 | | 99.7 | 96.4 | | | | 2.96 |
| | Lead | 101 | | 101 | 101 | 103 | | | 0.0290 |
| | Lead | 102 | | 103 | 100 | | | | 2.59 |
| | Selenium | 106 | | 104 | 103 | 104 | | | 1.01 |
| | Selenium | 94.0 | | 95.5 | 92.9 | | | | 2.70 |
| | Silver | 103 | | 105 | 104 | 102 | | | 0.756 |
| | Silver | 103 | | 105 | 102 | | | | 2.56 |
| EPA 7473 | Mercury | 98.8 | | 97.9 | 99.2 | | | | 1.31 |
| | Mercury | 96.2 | | 101 | 102 | | | | 0.540 |
| EPA 8260D | 1,1-Dichloroethane | 101 | 103 | 100 | 103 | | 1.81 | | 2.99 |
| | 1,1-Dichloroethane | 92.4 | 110 | 103 | 97.9 | | 17.1 | | 5.10 |
| | 1,1-Dichloroethene | 102 | 104 | 101 | 105 | | 1.45 | | 3.06 |
| | 1,1-Dichloroethene | 102 | 117 | 104 | 110 | | 13.7 | | 5.67 |
| | 1,1,1-Trichloroethane | 102 | 104 | 101 | 104 | | 1.65 | | 2.92 |
| | 1,1,1-Trichloroethane | 100 | 115 | 109 | 100 | | 13.6 | | 8.50 |
| | 1,1,2-Trichloroethane | 99.8 | 102 | 99.8 | 103 | | 1.93 | | 3.50 |
| | 1,1,2-Trichloroethane | 86.9 | 101 | 95.2 | 86.8 | | 14.9 | | 9.18 |
| | 1,1,2,2-Tetrachloroethane | 95.4 | 101 | 102 | 105 | | 5.26 | | 2.85 |
| | 1,1,2,2-Tetrachloroethane | 83.7 | 97.9 | 88.3 | 84.8 | | 15.6 | | 4.04 |
| | 1,2-Dichlorobenzene | 97.0 | 101 | 96.6 | 100 | | 3.64 | | 3.66 |
| | 1,2-Dichlorobenzene | 93.4 | 112 | 84.0 | 78.2 | | 17.9 | | 7.16 |
| | 1,2-Dichloroethane | 102 | 103 | 100 | 102 | | 0.827 | | 2.37 |
| | 1,2-Dichloroethane | 84.7 | 99.6 | 95.9 | 90.7 | | 16.2 | | 5.54 |
| | 1,2-Dichloropropane | 99.6 | 102 | 100 | 103 | | 2.38 | | 2.80 |
| | 1,2-Dichloropropane | 81.3 | 95.3 | 92.7 | 86.5 | | 15.8 | | 6.92 |
| | 1,3-Dichlorobenzene | 96.7 | 99.0 | 95.6 | 98.8 | | 2.40 | | 3.29 |
| | 1,3-Dichlorobenzene | 95.3 | 111 | 84.7 | 79.5 | | 15.2 | | 6.33 |
| | 1,4-Dichlorobenzene | 95.2 | 97.8 | 94.8 | 98.0 | | 2.59 | | 3.37 |
| | 1,4-Dichlorobenzene | 96.1 | 114 | 87.7 | 83.8 | | 16.8 | | 4.55 |
| | 2-Butanone | 92.8 | 96.2 | 96.1 | 98.2 | | 3.63 | | 2.09 |
| | 2-Butanone | 74.1 | 90.2 | 87.6 | 73.8 | | 19.6 | | 17.0 |
| | Benzene | 101 | 103 | 101 | 103 | | 2.16 | | 2.56 |
| | Benzene | 94.1 | 110 | 105 | 98.5 | | 16.0 | | 6.75 |
| | Bromodichloromethane | 102 | 104 | 102 | 104 | | 1.74 | | 2.43 |
| | Bromodichloromethane | 84.5 | 103 | 95.2 | 90.8 | | 19.5 | | 4.80 |
| | Bromoform | 101 | 103 | 101 | 104 | | 1.96 | | 2.79 |
| | Bromoform | 81.7 | 97.9 | 88.6 | 79.3 | | 18.1 | | 11.1 |
| | Bromomethane | 106 | 107 | 105 | 106 | | 0.800 | | 1.09 |
| | Bromomethane | 97.2 | 115 | 103 | 110 | | 16.4 | | 6.99 |
| | Carbon tetrachloride | 105 | 106 | 103 | 106 | | 1.37 | | 2.35 |
| | Carbon tetrachloride | 103 | 120 | 111 | 105 | | 15.5 | | 5.30 |
| | Chlorobenzene | 98.9 | 99.5 | 97.6 | 100 | | 0.605 | | 2.73 |
| | Chlorobenzene | 95.2 | 110 | 98.3 | 90.6 | | 14.0 | | 8.12 |
| | Chloroethane | 104 | 105 | 102 | 104 | | 0.720 | | 2.42 |
| | Chloroethane | 96.7 | 114 | 101 | 105 | | 16.7 | | 3.62 |
| | Chloroform | 102 | 103 | 101 | 103 | | 1.02 | | 2.10 |
| | Chloroform | 96.2 | 112 | 104 | 98.9 | | 15.1 | | 4.75 |

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | | MS % Recovery | | Precision | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | LCS | SMP | MS |
| EPA 8260D | Chloromethane | 103 | 101 | 104 | 108 | 2.20 | | 3.74 |
| | Chloromethane | 92.3 | 110 | 99.1 | 103 | 17.3 | | 3.66 |
| | cis-1,2-Dichloroethene | 101 | 102 | 99.8 | 102 | 0.986 | | 2.72 |
| | cis-1,2-Dichloroethene | 88.2 | 103 | 98.0 | 92.6 | 15.9 | | 5.72 |
| | cis-1,3-Dichloropropene | 98.7 | 100 | 97.1 | 99.8 | 1.76 | | 2.74 |
| | cis-1,3-Dichloropropene | 85.6 | 104 | 97.7 | 91.7 | 19.1 | | 6.34 |
| | Dibromochloromethane | 98.8 | 99.6 | 98.8 | 101 | 0.807 | | 1.75 |
| | Dibromochloromethane | 93.1 | 108 | 102 | 94.4 | 15.2 | | 8.20 |
| | Ethylbenzene | 102 | 102 | 100 | 103 | 0.638 | | 2.90 |
| | Ethylbenzene | 98.6 | 113 | 99.4 | 91.4 | 13.6 | | 8.42 |
| | m,p-Xylene | 101 | 101 | 99.6 | 101 | 0.222 | | 1.62 |
| | m,p-Xylene | 100 | 116 | 103 | 92.9 | 14.2 | | 9.98 |
| | Methyl-t-butyl ether | 102 | 104 | 106 | 110 | 2.67 | | 2.37 |
| | Methyl-t-butyl ether | 82.4 | 99.2 | 96.3 | 89.8 | 18.6 | | 6.93 |
| | Methylene chloride | 100 | 101 | 97.2 | 99.7 | 0.548 | | 2.49 |
| | Methylene chloride | 92.0 | 112 | 105 | 98.1 | 20.0 | | 6.60 |
| | o-Xylene | 103 | 103 | 101 | 104 | 0.632 | | 2.49 |
| | o-Xylene | 98.7 | 114 | 102 | 91.3 | 14.5 | | 10.9 |
| | Tetrachloroethene | 100 | 101 | 99.4 | 101 | 0.0497 | | 1.50 |
| | Tetrachloroethene | 104 | 118 | 105 | 97.6 | 12.7 | | 7.36 |
| | Toluene | 101 | 103 | 99.5 | 103 | 2.11 | | 3.17 |
| | Toluene | 91.1 | 107 | 98.0 | 95.3 | 15.7 | | 2.76 |
| | trans-1,2-Dichloroethene | 102 | 103 | 101 | 103 | 0.683 | | 2.40 |
| | trans-1,2-Dichloroethene | 94.9 | 111 | 104 | 98.4 | 15.6 | | 5.31 |
| | trans-1,3-Dichloropropene | 94.3 | 95.4 | 91.9 | 94.0 | 1.11 | | 2.26 |
| | trans-1,3-Dichloropropene | 95.1 | 112 | 105 | 95.1 | 16.4 | | 9.80 |
| | Trichloroethene | 103 | 103 | 98.4 | 100 | 0.534 | | 1.61 |
| | Trichloroethene | 100 | 115 | 109 | 101 | 13.6 | | 8.16 |
| | Trichlorofluoromethane | 107 | 108 | 105 | 107 | 0.511 | | 2.22 |
| | Trichlorofluoromethane | 110 | 125 | 112 | 119 | 13.3 | | 6.27 |
| | Vinyl chloride | 105 | 106 | 104 | 106 | 0.332 | | 2.62 |
| | Vinyl chloride | 91.6 | 108 | 97.2 | 101 | 16.3 | | 3.60 |
| EPA 8270E | 1-Methylnaphthalene | 99.6 | | 94.9 | 95.3 | | | 0.421 |
| | 1-Naphthylamine | 27.6 | | 31.3 | 26.5 | | | 16.6 |
| | 1,2,4-Trichlorobenzene | 85.8 | | 78.4 | 81.3 | | | 3.63 |
| | 1,2,4-Trichlorobenzene | 71.6 | | 67.6 | 74.4 | | | 9.57 |
| | 1,2,4,5-Tetrachlorobenzene | 94.1 | | 86.5 | 91.1 | | | 5.18 |
| | 1,3-Dinitrobenzene | 101 | | 98.4 | 101 | | | 2.95 |
| | 1,3,5-Trinitrobenzene | 110 | | 106 | 109 | | | 3.08 |
| | 2-Acetylaminofluorene | 96.0 | | 94.2 | 98.8 | | | 4.77 |
| | 2-Chloronaphthalene | 91.2 | | 86.0 | 87.5 | | | 1.73 |
| | 2-Chloronaphthalene | 81.5 | | 81.8 | 79.4 | | | 3.03 |
| | 2-Chlorophenol | 85.7 | | 87.6 | 88.8 | | | 1.36 |
| | 2-Chlorophenol | 81.2 | | 80.0 | 83.0 | | | 3.63 |
| | 2-Methyl-4,6-dinitrophenol | 90.5 | | 94.1 | 98.7 | | | 4.77 |
| | 2-Methyl-4,6-dinitrophenol | 90.6 | | 91.2 | 94.1 | | | 3.11 |
| | 2-Methylnaphthalene | 99.9 | | 94.0 | 95.3 | | | 1.37 |
| | 2-Naphthylamine | 24.1 | | 27.1 | 24.3 | | | 10.9 |
| | 2-Nitroaniline | 104 | | 96.0 | 97.3 | | | 1.35 |
| | 2-Nitrophenol | 76.5 | | 70.8 | 71.0 | | | 0.282 |
| | 2-Nitrophenol | 56.2 | | 59.7 | 63.4 | | | 6.04 |
| | 2-Picoline | 58.6 | | 72.8 | 74.2 | | | 1.90 |
| | 2,3,4,6-Tetrachlorophenol | 110 | | 104 | 106 | | | 2.09 |
| | 2,4-Dichlorophenol | 91.1 | | 91.9 | 92.2 | | | 0.326 |

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | MS % Recovery | | Precision | | |
|---|---|---|---|---|---|---|---|
| | | | | | LCS | SMP | MS |
| EPA 8270E | 2,4-Dichlorophenol | 78.9 | 82.5 | 87.2 | | | 5.56 |
| | 2,4-Dimethylphenol | 88.8 | 54.6 | 69.2 | | | 23.6 |
| | 2,4-Dimethylphenol | 64.5 | 82.6 | 85.3 | | | 3.29 |
| | 2,4-Dinitrophenol | 65.6 | 81.9 | 83.8 | | | 2.29 |
| | 2,4-Dinitrophenol | 93.2 | 93.2 | 94.8 | | | 1.62 |
| | 2,4-Dinitrotoluene | 99.5 | 96.3 | 96.7 | | | 0.415 |
| | 2,4-Dinitrotoluene | 95.8 | 95.5 | 94.7 | | | 0.841 |
| | 2,4,5-Trichlorophenol | 90.5 | 86.6 | 86.3 | | | 0.347 |
| | 2,4,6-Trichlorophenol | 94.2 | 91.0 | 90.4 | | | 0.662 |
| | 2,4,6-Trichlorophenol | 93.1 | 96.3 | 96.5 | | | 0.208 |
| | 2,6-Dichlorophenol | 104 | 105 | 103 | | | 1.83 |
| | 2,6-Dinitrotoluene | 97.3 | 92.7 | 94.1 | | | 1.50 |
| | 2,6-Dinitrotoluene | 96.5 | 95.2 | 94.8 | | | 0.421 |
| | 3-Methylcholanthrene | 104 | 97.7 | 100 | | | 2.43 |
| | 3,3'-Dichlorobenzidine | 88.4 | 81.8 | 82.0 | | | 0.244 |
| | 3,3'-Dichlorobenzidine | 133 | 113 | 113 | | | 0.283 |
| | 4-Aminobiphenyl | 105 | 98.8 | 100 | | | 1.51 |
| | 4-Bromophenyl phenyl ether | 99.0 | 97.7 | 102 | | | 3.82 |
| | 4-Bromophenyl phenyl ether | 94.5 | 95.6 | 94.2 | | | 1.47 |
| | 4-Chloro-3-methylphenol | 88.6 | 83.4 | 82.6 | | | 0.964 |
| | 4-Chloro-3-methylphenol | 86.1 | 86.6 | 92.0 | | | 6.00 |
| | 4-Chlorophenyl phenyl ether | 96.0 | 90.9 | 92.2 | | | 1.42 |
| | 4-Chlorophenyl phenyl ether | 87.4 | 87.5 | 88.0 | | | 0.547 |
| | 4-Nitrophenol | 87.5 | 83.8 | 83.1 | | | 0.839 |
| | 4-Nitrophenol | 91.3 | 87.0 | 91.6 | | | 5.19 |
| | 5-Nitro-o-toluidine | 86.4 | 75.1 | 76.7 | | | 2.11 |
| | 7,12-Dimethylbenz(a)anthracene | 102 | 94.0 | 97.6 | | | 3.76 |
| | Acenaphthene | 96.7 | 93.5 | 93.2 | | | 0.321 |
| | Acenaphthene | 87.9 | 86.8 | 89.2 | | | 2.73 |
| | Acenaphthylene | 92.0 | 87.7 | 87.9 | | | 0.228 |
| | Acenaphthylene | 88.6 | 88.0 | 89.1 | | | 1.17 |
| | Acetophenone | 90.0 | 90.0 | 92.1 | | | 2.31 |
| | Aniline | 89.5 | 88.8 | 92.5 | | | 4.08 |
| | Anthracene | 97.4 | 88.5 | 93.2 | | | 5.17 |
| | Anthracene | 92.0 | 91.9 | 94.6 | | | 2.90 |
| | Azobenzene/1,2-Diphenylhydrazine | 90.8 | 89.3 | 91.8 | | | 2.76 |
| | Azobenzene/1,2-Diphenylhydrazine | 97.1 | 96.9 | 100 | | | 3.33 |
| | Benzidine | 3.55 | 4.85 | 6.40 | | | 27.6 |
| | Benzidine | 14.0 | 0.0 | 0.0 | | | |
| | Benzo(a)anthracene | 105 | 101 | 104 | | | 3.42 |
| | Benzo(a)anthracene | 101 | 100 | 97.4 | | | 2.63 |
| | Benzo(a)pyrene | 99.9 | 96.5 | 97.2 | | | 0.723 |
| | Benzo(a)pyrene | 94.0 | 92.2 | 88.9 | | | 3.68 |
| | Benzo(b)fluoranthene | 88.9 | 89.7 | 89.4 | | | 0.335 |
| | Benzo(b)fluoranthene | 97.9 | 98.6 | 102 | | | 3.46 |
| | Benzo(g,h,i)perylene | 97.6 | 96.1 | 96.4 | | | 0.312 |
| | Benzo(g,h,i)perylene | 94.2 | 87.8 | 84.7 | | | 3.56 |
| | Benzo(k)fluoranthene | 90.2 | 99.1 | 92.4 | | | 7.00 |
| | Benzo(k)fluoranthene | 83.5 | 75.2 | 65.6 | | | 13.6 |
| | Benzyl alcohol | 87.7 | 90.6 | 91.0 | | | 0.441 |
| | Bis(2-chloroethoxy)methane | 90.2 | 91.1 | 90.5 | | | 0.661 |
| | Bis(2-chloroethoxy)methane | 76.6 | 77.2 | 80.7 | | | 4.41 |
| | Bis(2-chloroethyl)ether | 84.7 | 85.0 | 84.8 | | | 0.236 |
| | Bis(2-chloroethyl)ether | 71.1 | 74.5 | 83.6 | | | 11.5 |

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | MS % Recovery | | Precision | | |
|---|---|---|---|---|---|---|---|
| | | | | | LCS | SMP | MS |
| EPA 8270E | Bis(2-chloroisopropyl)ether | 89.0 | 89.6 | 91.5 | | | 2.10 |
| | Bis(2-chloroisopropyl)ether | 76.7 | 74.0 | 81.2 | | | 9.33 |
| | Bis(2-ethylhexyl)phthalate | 121 | 117 | 117 | | | 0.0854 |
| | Bis(2-ethylhexyl)phthalate | 115 | 116 | 112 | | | 3.41 |
| | Butyl benzyl phthalate | 111 | 106 | 109 | | | 3.26 |
| | Butyl benzyl phthalate | 111 | 107 | 106 | | | 1.13 |
| | Carbazole | 78.2 | 69.5 | 69.2 | | | 0.505 |
| | Chrysene | 108 | 106 | 108 | | | 1.68 |
| | Chrysene | 105 | 105 | 102 | | | 2.90 |
| | Di-n-butyl phthalate | 100 | 97.6 | 99.0 | | | 1.42 |
| | Di-n-butyl phthalate | 111 | 102 | 105 | | | 2.67 |
| | Di-n-octyl phthalate | 98.8 | 95.5 | 97.0 | | | 1.56 |
| | Di-n-octyl phthalate | 94.6 | 92.2 | 88.2 | | | 4.39 |
| | Dibenzo(a,h)anthracene | 99.4 | 99.0 | 99.5 | | | 0.504 |
| | Dibenzo(a,h)anthracene | 91.4 | 91.1 | 88.3 | | | 3.12 |
| | Dibenzofuran | 97.3 | 94.4 | 95.2 | | | 0.844 |
| | Diethyl phthalate | 97.8 | 91.8 | 93.6 | | | 1.94 |
| | Diethyl phthalate | 93.4 | 93.0 | 90.7 | | | 2.48 |
| | Dimethyl phthalate | 93.0 | 89.0 | 90.1 | | | 1.23 |
| | Dimethyl phthalate | 91.9 | 91.3 | 91.0 | | | 0.395 |
| | Dimethylaminoazobenzene | 84.9 | 84.0 | 86.1 | | | 2.47 |
| | Dinoseb | 92.1 | 97.3 | 102 | | | 4.52 |
| | Ethyl methanesulfonate | 77.1 | 76.9 | 78.8 | | | 2.44 |
| | Fluoranthene | 99.3 | 97.1 | 100 | | | 3.44 |
| | Fluoranthene | 97.8 | 96.6 | 98.3 | | | 1.71 |
| | Fluorene | 97.5 | 92.7 | 93.3 | | | 0.645 |
| | Fluorene | 88.5 | 88.1 | 88.9 | | | 0.979 |
| | Hexachlorobenzene | 96.0 | 92.2 | 95.9 | | | 3.93 |
| | Hexachlorobenzene | 93.6 | 93.8 | 95.4 | | | 1.65 |
| | Hexachlorobutadiene | 83.9 | 59.2 | 64.2 | | | 8.10 |
| | Hexachlorobutadiene | 67.4 | 60.8 | 66.1 | | | 8.32 |
| | Hexachlorocyclopentadiene | 69.1 | 49.9 | 55.7 | | | 11.0 |
| | Hexachlorocyclopentadiene | 66.9 | 40.4 | 47.1 | | | 15.4 |
| | Hexachloroethane | 92.2 | 71.9 | 79.5 | | | 10.0 |
| | Hexachloroethane | 71.5 | 57.4 | 64.8 | | | 12.1 |
| | Hexachloropropene | 93.8 | 70.2 | 79.3 | | | 12.2 |
| | Indeno(1,2,3-cd)pyrene | 96.3 | 96.2 | 95.8 | | | 0.417 |
| | Indeno(1,2,3-cd)pyrene | 92.5 | 91.0 | 87.8 | | | 3.54 |
| | Isophorone | 85.1 | 85.8 | 85.3 | | | 0.584 |
| | Isophorone | 73.8 | 76.1 | 81.4 | | | 6.81 |
| | Isosafrole | 96.4 | 96.0 | 95.2 | | | 0.837 |
| | m,p-Cresols | 78.5 | 81.2 | 82.5 | | | 1.59 |
| | N-Nitrosodi-n-butylamine | 99.4 | 96.7 | 96.9 | | | 0.207 |
| | N-Nitrosodi-n-propylamine | 83.7 | 84.4 | 87.3 | | | 3.38 |
| | N-Nitrosodi-n-propylamine | 77.2 | 74.7 | 79.6 | | | 6.38 |
| | N-Nitrosodiethylamine | 80.3 | 77.2 | 79.9 | | | 3.44 |
| | N-Nitrosodimethylamine | 78.6 | 77.4 | 77.9 | | | 0.644 |
| | N-Nitrosodimethylamine | 72.6 | 75.6 | 80.1 | | | 5.76 |
| | N-Nitrosodiphenylamine/ Diphenylamine | 120 | 116 | 117 | | | 0.599 |
| | N-Nitrosodiphenylamine/ Diphenylamine | 58.9 | 59.0 | 58.0 | | | 1.74 |
| | N-Nitrosomethylethylamine | 87.4 | 89.5 | 88.8 | | | 0.785 |
| | N-Nitrosomorpholine | 92.8 | 92.1 | 94.6 | | | 2.68 |

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | MS % Recovery | | Precision | | |
|---|---|---|---|---|---|---|---|
| | | | | | LCS | SMP | MS |
| EPA 8270E | N-Nitrosopiperidine | 94.9 | 94.4 | 97.7 | | | 3.44 |
| | N-Nitrosopyrrolidine | 76.3 | 74.9 | 76.4 | | | 1.98 |
| | Naphthalene | 89.1 | 86.0 | 87.0 | | | 1.16 |
| | Naphthalene | 74.9 | 72.9 | 78.8 | | | 7.82 |
| | Nitrobenzene | 82.7 | 84.9 | 84.2 | | | 0.828 |
| | Nitrobenzene | 72.0 | 72.6 | 75.5 | | | 4.00 |
| | o-Cresol | 85.7 | 82.5 | 85.1 | | | 3.10 |
| | o-Toluidine | 88.4 | 86.9 | 91.7 | | | 5.38 |
| | Pentachlorobenzene | 97.1 | 88.5 | 91.5 | | | 3.33 |
| | Pentachloroethane | 76.8 | 67.0 | 74.0 | | | 9.93 |
| | Pentachloronitrobenzene | 105 | 99.1 | 100 | | | 1.00 |
| | Pentachlorophenol | 104 | 98.0 | 106 | | | 8.13 |
| | Pentachlorophenol | 80.6 | 101 | 102 | | | 0.947 |
| | Phenacetin | 98.1 | 94.4 | 94.8 | | | 0.423 |
| | Phenanthrene | 98.5 | 96.4 | 99.6 | | | 3.27 |
| | Phenanthrene | 92.9 | 92.8 | 94.6 | | | 1.96 |
| | Phenol | 61.5 | 61.4 | 59.9 | | | 2.47 |
| | Phenol | 75.4 | 70.2 | 69.6 | | | 0.801 |
| | Pyrene | 112 | 107 | 111 | | | 4.03 |
| | Pyrene | 107 | 101 | 101 | | | 0.231 |
| | Pyridine | 53.8 | 56.3 | 56.4 | | | 0.177 |
| | Safrole | 102 | 100 | 101 | | | 0.299 |
| EPA 8321B | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 134 | 143 | 135 | | | 5.65 |
| | 4:2 Fluorotelomer sulfonate (4:2 FTS) | 127 | 116 | 111 | | | 4.41 |
| | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 105 | 129 | 130 | | | 0.697 |
| | 6:2 Fluorotelomer sulfonate (6:2 FTS) | 127 | 114 | 111 | | | 2.17 |
| | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 107 | 96.4 | 87.1 | | | 10.1 |
| | 8:2 Fluorotelomer sulfonate (8:2 FTS) | 108 | 93.2 | 92.6 | | | 0.643 |
| | Hexafluoropropylene oxide dimer acid | 57.3 | 53.2 | 49.6 | | | 6.97 |
| | N-Et perfluorooctanesulfonamidoAc acid | 83.4 | 80.8 | 76.7 | | | 5.25 |
| | N-Et perfluorooctanesulfonamidoAc acid | 126 | 110 | 107 | | | 3.30 |
| | N-Me perfluorooctanesulfonamidoAc acid | 80.4 | 79.6 | 79.9 | | | 0.260 |
| | N-Me perfluorooctanesulfonamidoAc acid | 120 | 103 | 104 | | | 0.782 |
| | Perfluorobutanesulfonic acid (PFBS) | 113 | 116 | 107 | | | 8.01 |
| | Perfluorobutanesulfonic acid (PFBS) | 132 | 109 | 114 | | | 3.93 |
| | Perfluorodecanesulfonic acid (PFDS) | 94.9 | 83.3 | 92.4 | | | 10.4 |
| | Perfluorodecanesulfonic acid (PFDS) | 146 | 126 | 128 | | | 1.47 |
| | Perfluorodecanoic acid (PFDA) | 103 | 99.6 | 95.3 | | | 4.40 |
| | Perfluorodecanoic acid (PFDA) | 120 | 99.8 | 97.6 | | | 2.26 |
| | Perfluorododecanoic acid (PFDoA) | 99.3 | 73.7 | 85.5 | | | 14.8 |
| | Perfluorododecanoic acid (PFDoA) | 107 | 90.7 | 107 | | | 16.4 |

# Quality Assurance Report
# Summary

| Ref. Method | Analyte | LCS % Recovery | MS % Recovery | | Precision | | |
|---|---|---|---|---|---|---|---|
| | | | | | LCS | SMP | MS |
| EPA 8321B | Perfluoroheptanesulfonic acid (PFHpS) | 114 | 113 | 103 | | | 9.16 |
| | Perfluoroheptanesulfonic acid (PFHpS) | 132 | 112 | 115 | | | 2.75 |
| | Perfluoroheptanoic acid (PFHpA) | 125 | 133 | 134 | | | 0.445 |
| | Perfluoroheptanoic acid (PFHpA) | 118 | 99.5 | 106 | | | 6.67 |
| | Perfluorohexanesulfonic acid (PFHxS) | 93.7 | 93.8 | 88.1 | | | 5.87 |
| | Perfluorohexanesulfonic acid (PFHxS) | 129 | 114 | 125 | | | 9.26 |
| | Perfluorohexanoic acid (PFHxA) | 98.4 | 110 | 107 | | | 2.78 |
| | Perfluorohexanoic acid (PFHxA) | 124 | 119 | 104 | | | 13.4 |
| | Perfluorononanesulfonic acid (PFNS) | 124 | 111 | 108 | | | 3.09 |
| | Perfluorononanesulfonic acid (PFNS) | 141 | 124 | 124 | | | 0.0072 |
| | Perfluorononanoic acid (PFNA) | 96.4 | 104 | 111 | | | 7.00 |
| | Perfluorononanoic acid (PFNA) | 121 | 108 | 96.7 | | | 10.8 |
| | Perfluorooctanesulfonic acid (PFOS) | 113 | 114 | 107 | | | 4.95 |
| | Perfluorooctanesulfonic acid (PFOS) | 138 | 121 | 124 | | | 2.43 |
| | Perfluorooctanoic acid (PFOA) | 98.2 | 105 | 107 | | | 2.06 |
| | Perfluorooctanoic acid (PFOA) | 124 | 101 | 88.6 | | | 13.2 |
| | Perfluoropentanesulfonic acid (PFPeS) | 110 | 111 | 105 | | | 5.62 |
| | Perfluoropentanesulfonic acid (PFPeS) | 135 | 116 | 119 | | | 2.61 |
| | Perfluoropentanoic acid (PFPeA) | 123 | 116 | 124 | | | 7.14 |
| | Perfluoropentanoic acid (PFPeA) | 137 | 104 | 106 | | | 1.96 |
| | Perfluorotetradecanoic acid (PFTeA) | 52.7 | 53.2 | 52.6 | | | 1.11 |
| | Perfluorotetradecanoic acid (PFTeA) | 109 | 75.8 | 97.1 | | | 24.6 |
| | Perfluorotridecanoic acid (PFTriA) | 68.3 | 65.1 | 79.4 | | | 19.9 |
| | Perfluorotridecanoic acid (PFTriA) | 87.7 | 85.9 | 87.9 | | | 2.34 |
| | Perfluoroundecanoic acid (PFUnA) | 100 | 96.1 | 104 | | | 7.69 |
| | Perfluoroundecanoic acid (PFUnA) | 108 | 97.2 | 91.1 | | | 6.42 |

# Reference Method Descriptions

| Method | Description | Associated Samples |
|---|---|---|
| EPA 6020A | Metals, total recoverable, in solid samples using ICP mass spectrometry | 2173844 |
| EPA 6020A | Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting RCRA Projects | 2173849 |
| EPA 7473 | Mercury in aqueous samples using thermal decomposition, amalgamation, and AA spectroscopy. | 2173848 |
| EPA 7473 | Mercury in solid samples using thermal decomposition, amalgamation and AA spectroscopy, reported as dry weight. | 2173843 |
| EPA 8260D | Volatile organic pollutants in acid preserved water matrices using GC/MS | 2173851, 2173852 |
| EPA 8260D | Volatile organic pollutants in soil matrix using GC/MS (heated purge - low level) | 2173846 |
| EPA 8270E | EPA Method 8270, Semi-volatile organic pollutants including PAHs, excluding PCBs and Toxaphene, in water matrices by GC/MS. | 2173847 |
| EPA 8270E | Semi-volatile organic pollutants, excluding PCBs and Toxaphene, in soil/sediments by GC/MS. | 2173842 |
| EPA 8321B | Perfluorinated alkyl substances in sediment/solid matrices by HPLC/MS/MS | 2173845 |
| EPA 8321B | Perfluorinated alkyl substances in water matrices by HPLC/MS/MS | 2173850 |

# Reference Method Descriptions

| Method | Description | Associated Samples |
|---|---|---|
| SM 2540 G (20th) | Percent solid determination before the other sample preparations. | 2173854 |

# Preparation and Analysis Log

| Ref. Method | Received Date | Prep Date/Time | Prepared By | Analysis Date/Time | Analyzed By | Associated Samples |
|---|---|---|---|---|---|---|
| EPA 6020A | 05/29/2020 | 06/04/2020 14:45 | Elliott D. Healy | 06/07/2020 14:52 | Alexander Thompson | 2173849 |
| | 05/29/2020 | 06/04/2020 14:45 | Elliott D. Healy | 06/08/2020 15:16 | Alexander Thompson | 2173849 |
| | 05/29/2020 | 06/18/2020 12:30 | Elliott D. Healy | 06/22/2020 16:08 | Justin Cutchin | 2173844 |
| EPA 7473 | 05/29/2020 | | | 06/05/2020 12:16 | Vijayalakshmi Reddy | 2173848 |
| | 05/29/2020 | | | 06/11/2020 12:00 | Vijayalakshmi Reddy | 2173843 |
| EPA 8260D | 05/29/2020 | 06/01/2020 12:00 | Yi Lin Luo | 06/01/2020 19:56 | Yi Lin Luo | 2173852 |
| | 05/29/2020 | 06/01/2020 12:00 | Yi Lin Luo | 06/01/2020 20:24 | Yi Lin Luo | 2173851 |
| | 05/29/2020 | 06/02/2020 10:00 | Yi Lin Luo | 06/02/2020 15:18 | Yi Lin Luo | 2173846 |
| EPA 8270E | 05/29/2020 | 06/01/2020 09:00 | Hoor Shaik | 06/03/2020 13:06 | Mohammad Ghaffari | 2173842 |
| | 05/29/2020 | 06/03/2020 09:00 | Hoor Shaik | 06/08/2020 18:25 | Mohammad Ghaffari | 2173847 |
| | 05/29/2020 | 06/03/2020 09:00 | Hoor Shaik | 06/08/2020 23:19 | Mohammad Ghaffari | 2173847 |
| EPA 8321B | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/03/2020 16:30 | Pramila Ghimire | 2173850 |
| | 05/29/2020 | 06/02/2020 13:00 | Pramila Ghimire | 06/04/2020 01:01 | Pramila Ghimire | 2173850 |
| | 05/29/2020 | 06/15/2020 09:00 | Pramila Ghimire | 06/16/2020 22:56 | Pramila Ghimire | 2173845 |