



Off-Base Drinking Water Sample Results, Electronic Data Deliverable, Data Validation Report, and the Sample Location Figure, SDG 1803182

*Naval Weapons Industrial Reserve Plant Calverton
Riverhead, New York*

August 2019

"CAL-DW01-20180926","EPA Method 537","Initial","1803182-01","Vista","375-73-5","PFBS","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","","0.260","0.001","4.81",""
"CAL-DW01-20180926","EPA Method 537","Initial","1803182-01","Vista","307-24-4","PFHxA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","","0.260","0.001","4.81",""
"CAL-DW01-20180926","EPA Method 537","Initial","1803182-01","Vista","375-85-9","PFHpA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","","0.260","0.001","4.81",""
"CAL-DW01-20180926","EPA Method 537","Initial","1803182-01","Vista","355-46-4","PFHxS","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","","0.260","0.001","4.81",""
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"CAL-DW01-20180926","EPA Method 537","Initial","1803182-01","Vista","2355-31-9","MeFOSAA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","","0.260","0.001","4.81",""
"CAL-DW01-20180926","EPA Method 537","Initial","1803182-01","Vista","2991-50-6","EtFOSAA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","","0.260","0.001","4.81",""
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"CAL-DW01-20180926","EPA Method 537","Initial","1803182-01","Vista","d5-EtFOSAA","d5-EtFOSAA","113","%R","","","-99","NA","","","SURR","113","","","-99","NA","YES","100","","","0.260","0.001","-99",""
"CAL-DW01-FRB-20180926","EPA Method 537","Initial","1803182-02","Vista","375-73-5","PFBS","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",""
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9","MeFOSAA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",
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6","EtFOSAA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",
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8","PFUnA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
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1","PFDoA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW01-FRB-20180926","EPA Method 537","Initial","1803182-02","Vista","72629-94-
8","PFTTrDA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
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7","PFTeDA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
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5","PFBS","4.79","ng/L","U","2.92","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW02-20180926","EPA Method 537","Initial","1803182-03","Vista","307-24-
4","PFHxA","4.79","ng/L","U","2.92","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW02-20180926","EPA Method 537","Initial","1803182-03","Vista","375-85-
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"CAL-DW02-20180926","EPA Method 537","Initial","1803182-03","Vista","355-46-
4","PFHxS","4.79","ng/L","U","2.92","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW02-20180926","EPA Method 537","Initial","1803182-03","Vista","335-67-
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"CAL-DW02-20180926","EPA Method 537","Initial","1803182-03","Vista","1763-23-
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"CAL-DW02-20180926","EPA Method 537","Initial","1803182-03","Vista","2355-31-
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6","EtFOSAA","4.79","ng/L","U","2.92","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",
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1","PFDoA","4.79","ng/L","U","2.92","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW02-20180926","EPA Method 537","Initial","1803182-03","Vista","72629-94-
8","PFTTrDA","4.79","ng/L","U","2.92","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW02-20180926","EPA Method 537","Initial","1803182-03","Vista","376-06-
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"CAL-DW02-20180926","EPA Method 537","Initial","1803182-03","Vista","13C2-PFHxA","13C2-
PFHxA","95.4","%R","","-99","NA","","SURR","95.4","","-99","NA","YES","100","","0.261","0.001","-99",""
"CAL-DW02-20180926","EPA Method 537","Initial","1803182-03","Vista","13C2-PFDA","13C2-
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5","PFBS","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
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"CAL-DW02-FRB-20180926","EPA Method 537","Initial","1803182-04","Vista","355-46-
4","PFHxS","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
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"CAL-DW02-FRB-20180926","EPA Method 537","Initial","1803182-04","Vista","375-95-
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"CAL-DW02-FRB-20180926","EPA Method 537","Initial","1803182-04","Vista","335-76-
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"CAL-DW02-FRB-20180926","EPA Method 537","Initial","1803182-04","Vista","2355-31-
9","MeFOSAA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79"
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6","EtFOSAA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",
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"CAL-DW02-FRB-20180926","EPA Method 537","Initial","1803182-04","Vista","2058-94-
8","PFUnA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW02-FRB-20180926","EPA Method 537","Initial","1803182-04","Vista","307-55-
1","PFDoA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW02-FRB-20180926","EPA Method 537","Initial","1803182-04","Vista","72629-94-
8","PFTTrDA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW02-FRB-20180926","EPA Method 537","Initial","1803182-04","Vista","376-06-
7","PFTeDA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
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"CAL-DW03-20180926","EPA Method 537","Initial","1803182-05","Vista","355-46-
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"CAL-DW03-20180926","EPA Method 537","Initial","1803182-05","Vista","1763-23-
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"CAL-DW03-20180926","EPA Method 537","Initial","1803182-05","Vista","2355-31-

9","MeFOSAA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.74","LOQ","YES","-99","","0.257","0.001","4.86",
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6","EtFOSAA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.74","LOQ","YES","-99","","0.257","0.001","4.86",
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4","PFHxS","4.92","ng/L","U","2.99","LOD","","TRG","","","9.83","LOQ","YES","-99","","0.254","0.001","4.92",
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","335-67-
1","PFOA","4.92","ng/L","U","2.99","LOD","","TRG","","","9.83","LOQ","YES","-99","","0.254","0.001","4.92",
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","375-95-
1","PFNA","4.92","ng/L","U","2.99","LOD","","TRG","","","9.83","LOQ","YES","-99","","0.254","0.001","4.92",
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","1763-23-
1","PFOS","4.92","ng/L","U","2.99","LOD","","TRG","","","9.83","LOQ","YES","-99","","0.254","0.001","4.92",
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","335-76-
2","PFDA","4.92","ng/L","U","2.99","LOD","","TRG","","","9.83","LOQ","YES","-99","","0.254","0.001","4.92",
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","2355-31-
9","MeFOSAA","4.92","ng/L","U","2.99","LOD","","TRG","","","9.83","LOQ","YES","-99","","0.254","0.001","4.92",
,""
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","2991-50-
6","EtFOSAA","4.92","ng/L","U","2.99","LOD","","TRG","","","9.83","LOQ","YES","-99","","0.254","0.001","4.92",
,""
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","2058-94-
8","PFUnA","4.92","ng/L","U","2.99","LOD","","TRG","","","9.83","LOQ","YES","-99","","0.254","0.001","4.92",
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","307-55-
1","PFDaA","4.92","ng/L","U","2.99","LOD","","TRG","","","9.83","LOQ","YES","-99","","0.254","0.001","4.92",
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","72629-94-
8","PFTTrDA","4.92","ng/L","U","2.99","LOD","","TRG","","","9.83","LOQ","YES","-99","","0.254","0.001","4.92",
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","376-06-
7","PFTeDA","4.92","ng/L","U","2.99","LOD","","TRG","","","9.83","LOQ","YES","-99","","0.254","0.001","4.92",
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","13C2-PFHxA","13C2-
PFHxA","100","%R","","-99","NA","","SURRE","100","","-99","NA","YES","100","","0.254","0.001","-99",
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","13C2-PFDA","13C2-
PFDA","100","%R","","-99","NA","","SURRE","100","","-99","NA","YES","100","","0.254","0.001","-99",
"CAL-DW03-FRB-20180926","EPA Method 537","Initial","1803182-06","Vista","d5-EtFOSAA","d5-

EtFOSAA","106","%R","",-99,"NA","","SURR","106","",-99,"NA","YES","100","","0.254","0.001","-99",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","375-73-
5","PFBS","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","307-24-
4","PFHxA","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","375-85-
9","PFHpA","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","355-46-
4","PFHxS","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","335-67-
1","PFOA","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","375-95-
1","PFNA","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","1763-23-
1","PFOS","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","335-76-
2","PFDA","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","2355-31-
9","MeFOSAA","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77"
,"
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","2991-50-
6","EtFOSAA","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",
,"
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","2058-94-
8","PFUnA","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","307-55-
1","PFDoA","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","72629-94-
8","PFTTrDA","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","376-06-
7","PFTeDA","4.77","ng/L","U","2.90","LOD","","TRG","","","9.53","LOQ","YES","-99","","0.262","0.001","4.77",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","13C2-PFHxA","13C2-
PFHxA","110","%R","",-99,"NA","","SURR","110","",-99,"NA","YES","100","","0.262","0.001","-99",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","13C2-PFDA","13C2-
PFDA","107","%R","",-99,"NA","","SURR","107","",-99,"NA","YES","100","","0.262","0.001","-99",""
"CAL-DW04-20180927","EPA Method 537","Initial","1803182-07","Vista","d5-EtFOSAA","d5-
EtFOSAA","118","%R","",-99,"NA","","SURR","118","",-99,"NA","YES","100","","0.262","0.001","-99",""
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","375-73-
5","PFBS","4.84","ng/L","U","2.95","LOD","","TRG","","","9.70","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","307-24-
4","PFHxA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.70","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","375-85-
9","PFHpA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.70","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","355-46-
4","PFHxS","4.84","ng/L","U","2.95","LOD","","TRG","","","9.70","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","335-67-
1","PFOA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.70","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","375-95-
1","PFNA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.70","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","1763-23-
1","PFOS","4.84","ng/L","U","2.95","LOD","","TRG","","","9.70","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","335-76-
2","PFDA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.70","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","2355-31-

9","MeFOSAA","4.84","ng/L","U","2.95","LOD","","","TRG","","","9.70","LOQ","YES","-99","","","0.258","0.001","4.84",
,""
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","2991-50-
6","EtFOSAA","4.84","ng/L","U","2.95","LOD","","","TRG","","","9.70","LOQ","YES","-99","","","0.258","0.001","4.84",
,""
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","2058-94-
8","PFUnA","4.84","ng/L","U","2.95","LOD","","","TRG","","","9.70","LOQ","YES","-99","","","0.258","0.001","4.84",
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","307-55-
1","PFDaA","4.84","ng/L","U","2.95","LOD","","","TRG","","","9.70","LOQ","YES","-99","","","0.258","0.001","4.84",
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","72629-94-
8","PFTTrDA","4.84","ng/L","U","2.95","LOD","","","TRG","","","9.70","LOQ","YES","-99","","","0.258","0.001","4.84",
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","376-06-
7","PFTeDA","4.84","ng/L","U","2.95","LOD","","","TRG","","","9.70","LOQ","YES","-99","","","0.258","0.001","4.84",
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","13C2-PFHxA","13C2-
PFHxA","98.1","%R","","","-99","NA","","","SURR","98.1","","","-99","NA","YES","100","","","0.258","0.001","-99",
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","13C2-PFDA","13C2-
PFDA","92.5","%R","","","-99","NA","","","SURR","92.5","","","-99","NA","YES","100","","","0.258","0.001","-99",
"CAL-DW04-FRB-20180927","EPA Method 537","Initial","1803182-08","Vista","d5-EtFOSAA","d5-
EtFOSAA","122","%R","","","-99","NA","","","SURR","122","","","-99","NA","YES","100","","","0.258","0.001","-99",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","375-73-
5","PFBS","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","307-24-
4","PFHxA","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","375-85-
9","PFHpA","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","355-46-
4","PFHxS","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","335-67-
1","PFOA","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","375-95-
1","PFNA","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","1763-23-
1","PFOS","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","335-76-
2","PFDA","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","2355-31-
9","MeFOSAA","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
,""
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","2991-50-
6","EtFOSAA","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
,""
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","2058-94-
8","PFUnA","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","307-55-
1","PFDaA","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","72629-94-
8","PFTTrDA","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","376-06-
7","PFTeDA","4.90","ng/L","U","2.98","LOD","","","TRG","","","9.80","LOQ","YES","-99","","","0.255","0.001","4.90",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","13C2-PFHxA","13C2-
PFHxA","94.4","%R","","","-99","NA","","","SURR","94.4","","","-99","NA","YES","100","","","0.255","0.001","-99",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","13C2-PFDA","13C2-
PFDA","91.0","%R","","","-99","NA","","","SURR","91.0","","","-99","NA","YES","100","","","0.255","0.001","-99",
"CAL-DW07-20180927","EPA Method 537","Initial","1803182-09","Vista","d5-EtFOSAA","d5-

EtFOSAA","108","%R","",-99","NA","","SURR","108","",-99","NA","YES","100","","0.255","0.001","-99",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","375-73-
5","PFBS","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","307-24-
4","PFHxA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","375-85-
9","PFHpA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","355-46-
4","PFHxS","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","335-67-
1","PFOA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","375-95-
1","PFNA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","1763-23-
1","PFOS","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","335-76-
2","PFDA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","2355-31-
9","MeFOSAA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79"
,""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","2991-50-
6","EtFOSAA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",
,""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","2058-94-
8","PFUnA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","307-55-
1","PFDoA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","72629-94-
8","PFTTrDA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","376-06-
7","PFTeDA","4.79","ng/L","U","2.91","LOD","","TRG","","","9.59","LOQ","YES","-99","","0.261","0.001","4.79",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","13C2-PFHxA","13C2-
PFHxA","98.2","%R","",-99","NA","","SURR","98.2","",-99","NA","YES","100","","0.261","0.001","-99",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","13C2-PFDA","13C2-
PFDA","88.2","%R","",-99","NA","","SURR","88.2","",-99","NA","YES","100","","0.261","0.001","-99",""
"CAL-DW07-FRB-20180927","EPA Method 537","Initial","1803182-10","Vista","d5-EtFOSAA","d5-
EtFOSAA","102","%R","",-99","NA","","SURR","102","",-99","NA","YES","100","","0.261","0.001","-99",""
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","375-73-
5","PFBS","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","307-24-
4","PFHxA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","375-85-
9","PFHpA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","355-46-
4","PFHxS","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","335-67-
1","PFOA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","375-95-
1","PFNA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","1763-23-
1","PFOS","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","335-76-
2","PFDA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","2355-31-

9","MeFOSAA","4.88","ng/L","U","2.97","LOD","","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",
,""
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","2991-50-
6","EtFOSAA","4.88","ng/L","U","2.97","LOD","","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",
,""
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","2058-94-
8","PFUnA","4.88","ng/L","U","2.97","LOD","","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","307-55-
1","PFDaA","4.88","ng/L","U","2.97","LOD","","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","72629-94-
8","PFTTrDA","4.88","ng/L","U","2.97","LOD","","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","376-06-
7","PFTeDA","4.88","ng/L","U","2.97","LOD","","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","13C2-PFHxA","13C2-
PFHxA","88.6","%R","","-99","NA","","","SURR","88.6","","-99","NA","YES","100","","","0.256","0.001","-99",
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","13C2-PFDA","13C2-
PFDA","87.5","%R","","-99","NA","","","SURR","87.5","","-99","NA","YES","100","","","0.256","0.001","-99",
"CAL-DW-DUP01-20180927","EPA Method 537","Initial","1803182-11","Vista","d5-EtFOSAA","d5-
EtFOSAA","97.8","%R","","-99","NA","","","SURR","97.8","","-99","NA","YES","100","","","0.256","0.001","-99",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","375-73-
5","PFBS","3.37","ng/L","J","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","307-24-
4","PFHxA","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","375-85-
9","PFHpA","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","355-46-
4","PFHxS","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","335-67-
1","PFOA","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","375-95-
1","PFNA","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","1763-23-
1","PFOS","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","335-76-
2","PFDA","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","2355-31-
9","MeFOSAA","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
,""
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","2991-50-
6","EtFOSAA","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
,""
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","2058-94-
8","PFUnA","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","307-55-
1","PFDaA","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","72629-94-
8","PFTTrDA","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","376-06-
7","PFTeDA","4.77","ng/L","U","2.90","LOD","","","TRG","","","9.54","LOQ","YES","-99","","","0.262","0.001","4.77",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","13C2-PFHxA","13C2-
PFHxA","99.4","%R","","-99","NA","","","SURR","99.4","","-99","NA","YES","100","","","0.262","0.001","-99",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","13C2-PFDA","13C2-
PFDA","90.8","%R","","-99","NA","","","SURR","90.8","","-99","NA","YES","100","","","0.262","0.001","-99",
"CAL-DW10-20180927","EPA Method 537","Initial","1803182-12","Vista","d5-EtFOSAA","d5-

EtFOSAA","118","%R","",-99","NA","","SURR","118","",-99","NA","YES","100","","0.262","0.001","-99",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","375-73-
5","PFBS","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","307-24-
4","PFHxA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","375-85-
9","PFHpA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","355-46-
4","PFHxS","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","335-67-
1","PFOA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","375-95-
1","PFNA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","1763-23-
1","PFOS","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","335-76-
2","PFDA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","2355-31-
9","MeFOSAA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81"
,"
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","2991-50-
6","EtFOSAA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",
,"
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","2058-94-
8","PFUnA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","307-55-
1","PFDoA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","72629-94-
8","PFTTrDA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","376-06-
7","PFTeDA","4.81","ng/L","U","2.92","LOD","","TRG","","","9.60","LOQ","YES","-99","","0.260","0.001","4.81",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","13C2-PFHxA","13C2-
PFHxA","99.4","%R","",-99","NA","","SURR","99.4","",-99","NA","YES","100","","0.260","0.001","-99",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","13C2-PFDA","13C2-
PFDA","97.6","%R","",-99","NA","","SURR","97.6","",-99","NA","YES","100","","0.260","0.001","-99",""
"CAL-DW10-FRB-20180927","EPA Method 537","Initial","1803182-13","Vista","d5-EtFOSAA","d5-
EtFOSAA","97.0","%R","",-99","NA","","SURR","97.0","",-99","NA","YES","100","","0.260","0.001","-99",""
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","375-73-
5","PFBS","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","307-24-
4","PFHxA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","375-85-
9","PFHpA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","355-46-
4","PFHxS","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","335-67-
1","PFOA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","375-95-
1","PFNA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","1763-23-
1","PFOS","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","335-76-
2","PFDA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","2355-31-

9","MeFOSAA","4.88","ng/L","U","2.97","LOD","","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",
,""
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","2991-50-
6","EtFOSAA","4.88","ng/L","U","2.97","LOD","","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",
,""
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","2058-94-
8","PFUnA","4.88","ng/L","U","2.97","LOD","","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","307-55-
1","PFDaA","4.88","ng/L","U","2.97","LOD","","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","72629-94-
8","PFTTrDA","4.88","ng/L","U","2.97","LOD","","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","376-06-
7","PFTeDA","4.88","ng/L","U","2.97","LOD","","","TRG","","","9.77","LOQ","YES","-99","","","0.256","0.001","4.88",
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","13C2-PFHxA","13C2-
PFHxA","89.5","%R","","-99","NA","","","SURR","89.5","","-99","NA","YES","100","","","0.256","0.001","-99",
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","13C2-PFDA","13C2-
PFDA","85.7","%R","","-99","NA","","","SURR","85.7","","-99","NA","YES","100","","","0.256","0.001","-99",
"CAL-DW12-20180927","EPA Method 537","Initial","1803182-14","Vista","d5-EtFOSAA","d5-
EtFOSAA","94.6","%R","","-99","NA","","","SURR","94.6","","-99","NA","YES","100","","","0.256","0.001","-99",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","375-73-
5","PFBS","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","307-24-
4","PFHxA","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","375-85-
9","PFHpA","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","355-46-
4","PFHxS","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","335-67-
1","PFOA","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","375-95-
1","PFNA","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","1763-23-
1","PFOS","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","335-76-
2","PFDA","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","2355-31-
9","MeFOSAA","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
,""
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","2991-50-
6","EtFOSAA","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
,""
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","2058-94-
8","PFUnA","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","307-55-
1","PFDaA","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","72629-94-
8","PFTTrDA","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","376-06-
7","PFTeDA","4.86","ng/L","U","2.96","LOD","","","TRG","","","9.74","LOQ","YES","-99","","","0.257","0.001","4.86",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","13C2-PFHxA","13C2-
PFHxA","84.8","%R","","-99","NA","","","SURR","84.8","","-99","NA","YES","100","","","0.257","0.001","-99",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","13C2-PFDA","13C2-
PFDA","84.3","%R","","-99","NA","","","SURR","84.3","","-99","NA","YES","100","","","0.257","0.001","-99",
"CAL-DW12-FRB-20180927","EPA Method 537","Initial","1803182-15","Vista","d5-EtFOSAA","d5-

EtFOSAA","105","%R","",-99","NA","","SURR","105","",-99","NA","YES","100","","0.257","0.001","-99",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","375-73-
5","PFBS","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","307-24-
4","PFHxA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","375-85-
9","PFHpA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","355-46-
4","PFHxS","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","335-67-
1","PFOA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","375-95-
1","PFNA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","1763-23-
1","PFOS","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","335-76-
2","PFDA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","2355-31-
9","MeFOSAA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86"
,"
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","2991-50-
6","EtFOSAA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",
,"
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","2058-94-
8","PFUnA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","307-55-
1","PFDoA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","72629-94-
8","PFTTrDA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","376-06-
7","PFTeDA","4.86","ng/L","U","2.96","LOD","","TRG","","","9.73","LOQ","YES","-99","","0.257","0.001","4.86",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","13C2-PFHxA","13C2-
PFHxA","87.1","%R","",-99","NA","","SURR","87.1","",-99","NA","YES","100","","0.257","0.001","-99",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","13C2-PFDA","13C2-
PFDA","86.0","%R","",-99","NA","","SURR","86.0","",-99","NA","YES","100","","0.257","0.001","-99",""
"CAL-DW06-20180926","EPA Method 537","Initial","1803182-16","Vista","d5-EtFOSAA","d5-
EtFOSAA","98.5","%R","",-99","NA","","SURR","98.5","",-99","NA","YES","100","","0.257","0.001","-99",""
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","375-73-
5","PFBS","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","307-24-
4","PFHxA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","375-85-
9","PFHpA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","355-46-
4","PFHxS","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","335-67-
1","PFOA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","375-95-
1","PFNA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","1763-23-
1","PFOS","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","335-76-
2","PFDA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",""
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","2355-31-

9","MeFOSAA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",
,"
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","2991-50-
6","EtFOSAA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",
,"
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","2058-94-
8","PFUnA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","307-55-
1","PFDaA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","72629-94-
8","PFTTrDA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","376-06-
7","PFTeDA","4.84","ng/L","U","2.95","LOD","","TRG","","","9.71","LOQ","YES","-99","","0.258","0.001","4.84",
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","13C2-PFHxA","13C2-
PFHxA","92.8","%R","","-99","NA","","SURR","92.8","","-99","NA","YES","100","","0.258","0.001","-99",
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","13C2-PFDA","13C2-
PFDA","93.6","%R","","-99","NA","","SURR","93.6","","-99","NA","YES","100","","0.258","0.001","-99",
"CAL-DW06-FRB-20180926","EPA Method 537","Initial","1803182-17","Vista","d5-EtFOSAA","d5-
EtFOSAA","102","%R","","-99","NA","","SURR","102","","-99","NA","YES","100","","0.258","0.001","-99",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","375-73-
5","PFBS","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","307-24-
4","PFHxA","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","375-85-
9","PFHpA","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","355-46-
4","PFHxS","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","335-67-
1","PFOA","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","375-95-
1","PFNA","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","1763-23-
1","PFOS","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","335-76-
2","PFDA","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","2355-31-
9","MeFOSAA","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
,"
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","2991-50-
6","EtFOSAA","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
,"
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","2058-94-
8","PFUnA","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","307-55-
1","PFDaA","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","72629-94-
8","PFTTrDA","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","376-06-
7","PFTeDA","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","13C2-PFHxA","13C2-
PFHxA","98.5","%R","","-99","NA","","SUR","98.5","","-99","NA","YES","100","","0.250","0.001","-99",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","13C2-PFDA","13C2-
PFDA","101","%R","","-99","NA","","SUR","101","","-99","NA","YES","100","","0.250","0.001","-99",
"B8J0059-BLK1","EPA Method 537","Initial","B8J0059-BLK1","Vista","d5-EtFOSAA","d5-

EtFOSAA","118","%R","",-99","NA","","SUR","118","",-99","NA","YES","100","","0.250","0.001","-99",""
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","375-73-
5","PFBS","36.0","ng/L","","3.04","LOD","","TRG","102","","10.0","LOQ","YES","35.4","","0.250","0.001","5.00",""
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","307-24-
4","PFHxA","36.4","ng/L","","3.04","LOD","","TRG","91.0","","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",
""
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","375-85-
9","PFHpA","37.0","ng/L","","3.04","LOD","","TRG","92.5","","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",
""
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","355-46-
4","PFHxS","37.7","ng/L","","3.04","LOD","","TRG","103","","10.0","LOQ","YES","36.4","","0.250","0.001","5.00",
"
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","335-67-
1","PFOA","32.8","ng/L","","3.04","LOD","","TRG","82.0","","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",
"
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","375-95-
1","PFNA","37.6","ng/L","","3.04","LOD","","TRG","94.0","","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",
"
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","1763-23-
1","PFOS","36.0","ng/L","","3.04","LOD","","TRG","97.4","","10.0","LOQ","YES","37.0","","0.250","0.001","5.00",
"
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","335-76-
2","PFDA","36.8","ng/L","","3.04","LOD","","TRG","92.1","","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",
"
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","2355-31-
9","MeFOSAA","46.6","ng/L","","3.04","LOD","","TRG","116","","10.0","LOQ","YES","40.0","","0.250","0.001","5.
00",""
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","2991-50-
6","EtFOSAA","35.6","ng/L","","3.04","LOD","","TRG","89.1","","10.0","LOQ","YES","40.0","","0.250","0.001","5.0
0",""
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","2058-94-
8","PFUnA","33.6","ng/L","","3.04","LOD","","TRG","84.0","","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",
""
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","307-55-
1","PFDoA","31.1","ng/L","","3.04","LOD","","TRG","77.8","","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",
""
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","72629-94-
8","PFTTrDA","31.8","ng/L","","3.04","LOD","","TRG","79.6","","10.0","LOQ","YES","40.0","","0.250","0.001","5.00
",""
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","376-06-
7","PFTeDA","38.1","ng/L","","3.04","LOD","","TRG","95.3","","10.0","LOQ","YES","40.0","","0.250","0.001","5.00
",""
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","13C2-PFHxA","13C2-
PFHxA","89.5","%R","",-99","NA","","SUR","89.5","",-99","NA","YES","100","","0.250","0.001","-99",""
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","13C2-PFDA","13C2-
PFDA","84.3","%R","",-99","NA","","SUR","84.3","",-99","NA","YES","100","","0.250","0.001","-99",""
"B8J0059-BS1","EPA Method 537","Initial","B8J0059-BS1","Vista","d5-EtFOSAA","d5-
EtFOSAA","90.8","%R","",-99","NA","","SUR","90.8","",-99","NA","YES","100","","0.250","0.001","-99",""
"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","375-73-
5","PFBS","41.8","ng/L","","3.04","LOD","","TRG","118","15.1","10.0","LOQ","YES","35.4","","0.250","0.001","5.0
0",""
"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","307-24-
4","PFHxA","41.5","ng/L","","3.04","LOD","","TRG","104","13.0","10.0","LOQ","YES","40.0","","0.250","0.001","5.
00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","375-85-9","PFHpA","40.8","ng/L","","3.04","LOD","","TRG","102","9.61","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","355-46-4","PFHxS","40.7","ng/L","","3.04","LOD","","TRG","112","7.68","10.0","LOQ","YES","36.4","","0.250","0.001","5.00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","335-67-1","PFOA","39.0","ng/L","","3.04","LOD","","TRG","97.5","17.2","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","375-95-1","PFNA","39.9","ng/L","","3.04","LOD","","TRG","99.7","5.96","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","1763-23-1","PFOS","35.5","ng/L","","3.04","LOD","","TRG","96.0","1.41","10.0","LOQ","YES","37.0","","0.250","0.001","5.00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","335-76-2","PFDA","41.0","ng/L","","3.04","LOD","","TRG","102","10.6","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","2355-31-9","MeFOSAA","46.9","ng/L","","3.04","LOD","","TRG","117","0.633","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","2991-50-6","EtFOSAA","37.2","ng/L","","3.04","LOD","","TRG","93.1","4.45","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","2058-94-8","PFUnA","39.0","ng/L","","3.04","LOD","","TRG","97.5","14.9","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","307-55-1","PFDoA","33.6","ng/L","","3.04","LOD","","TRG","83.9","7.52","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","72629-94-8","PFTTrDA","38.3","ng/L","","3.04","LOD","","TRG","95.7","18.4","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","376-06-7","PFTeDA","43.1","ng/L","","3.04","LOD","","TRG","108","12.2","10.0","LOQ","YES","40.0","","0.250","0.001","5.00",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","13C2-PFHxA","13C2-PFHxA","98.9","%R","","-99","NA","","SUR","98.9","","-99","NA","YES","100","","0.250","0.001","-99",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","13C2-PFDA","13C2-PFDA","90.0","%R","","-99","NA","","SUR","90.0","","-99","NA","YES","100","","0.250","0.001","-99",""

"B8J0059-BSD1","EPA Method 537","Initial","B8J0059-BSD1","Vista","d5-EtFOSAA","d5-EtFOSAA","93.6","%R","","-99","NA","","SUR","93.6","","-99","NA","YES","100","","0.250","0.001","-99",""

"112G08005- WE05","Calverton Off Base DW Sampling 112G08005- WE05","CAL-DW01-20180926","09/26/2018 08:12","AQ","1803182-01","NM","","0.30","EPA Method 537","METHOD","Initial","10/08/2018 10:05","10/10/2018 11:00","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""

"112G08005- WE05","Calverton Off Base DW Sampling 112G08005- WE05","CAL-DW01-FRB-20180926","09/26/2018 08:12","AQ","1803182-02","NM","","0.30","EPA Method 537","METHOD","Initial","10/08/2018 10:05","10/10/2018 11:13","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""

"112G08005- WE05","Calverton Off Base DW Sampling 112G08005- WE05","CAL-DW02-20180926","09/26/2018 11:36","AQ","1803182-03","NM","","0.30","EPA Method 537","METHOD","Initial","10/08/2018 10:05","10/10/2018 11:26","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""

00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
"112G08005- WE05","Calverton Off Base DW Sampling 112G08005- WE05","CAL-DW02-FRB-
20180926","09/26/2018 11:36","AQ","1803182-04","NM","","0.30","EPA Method
537","METHOD","Initial","10/08/2018 10:05","10/10/2018
11:39","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
"112G08005- WE05","Calverton Off Base DW Sampling 112G08005- WE05","CAL-DW03-20180926","09/26/2018
09:38","AQ","1803182-05","NM","","0.30","EPA Method 537","METHOD","Initial","10/08/2018 10:05","10/10/2018
11:52","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
"112G08005- WE05","Calverton Off Base DW Sampling 112G08005- WE05","CAL-DW03-FRB-
20180926","09/26/2018 09:38","AQ","1803182-06","NM","","0.30","EPA Method
537","METHOD","Initial","10/08/2018 10:05","10/10/2018
12:05","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
"112G08005- WE05","Calverton Off Base DW Sampling 112G08005- WE05","CAL-DW04-20180927","09/27/2018
09:13","AQ","1803182-07","NM","","0.30","EPA Method 537","METHOD","Initial","10/08/2018 10:05","10/10/2018
16:19","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
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20180927","09/27/2018 09:13","AQ","1803182-08","NM","","0.30","EPA Method
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12:31","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
"112G08005- WE05","Calverton Off Base DW Sampling 112G08005- WE05","CAL-DW07-20180927","09/27/2018
10:35","AQ","1803182-09","NM","","0.30","EPA Method 537","METHOD","Initial","10/08/2018 10:05","10/10/2018
12:45","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
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13:23","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
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20180927","09/27/2018 11:00","AQ","1803182-11","NM","","0.30","EPA Method
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00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
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13:01","AQ","1803182-12","NM","","0.30","EPA Method 537","METHOD","Initial","10/08/2018 10:05","10/10/2018
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00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
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00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
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16:05","AQ","1803182-16","NM","","0.30","EPA Method 537","METHOD","Initial","10/08/2018 10:05","10/10/2018
14:43","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
"112G08005- WE05","Calverton Off Base DW Sampling 112G08005- WE05","CAL-DW06-FRB-
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00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","09/29/2018 09:40","01/01/1900 00:00",""
"112G08005- WE05","Calverton Off Base DW Sampling 112G08005- WE05","B8J0059-BLK1","01/01/1900
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10:05","10/10/2018 10:35","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","01/01/1900 00:00","01/01/1900 00:00",""
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00:00","AQ","B8J0059-BS1","LCS","",-99","EPA Method 537","METHOD","Initial","10/08/2018
10:05","10/10/2018 10:06","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","01/01/1900 00:00","01/01/1900 00:00",""
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00:00","AQ","B8J0059-BSD1","LCSD","",-99","EPA Method 537","METHOD","Initial","10/08/2018
10:05","10/10/2018 10:23","Vista","COA","WET","NA","1","NA","NA","01/01/1900
00:00","100","B8J0059","B8J0059","NA","S8J0028","1803182","01/01/1900 00:00","01/01/1900 00:00",""



TETRA TECH

INTERNAL CORRESPONDENCE

TO: K. FRANCISCO **DATE:** OCTOBER 18, 2018
FROM: TERRI L. SOLOMON **COPIES:** DV FILE
SUBJECT: ORGANIC DATA VALIDATION – POLYFLUOROALKYL SUBSTANCES (PFAS)
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP), CALVERTON
SAMPLE DELIVERY GROUP (SDG) 1803182

SAMPLES: 9/Drinking Water
CAL-DW-DUP01-20180927 CAL-DW01-20180926
CAL-DW02-20180926 CAL-DW03-20180926
CAL-DW04-20180927 CAL-DW06-20180926
CAL-DW07-20180927 CAL-DW10-20180927
CAL-DW12-20180927

8/Field Reagent Blank (FRB)
CAL-DW01-FRB-20180926 CAL-DW02-FRB-20180926
CAL-DW03-FRB-20180926 CAL-DW04-FRB-20180927
CAL-DW06-FRB-20180926 CAL-DW07-FRB-20180927
CAL-DW10-FRB-20180927 CAL-DW12-FRB-20180927

Overview

The sample set for NWIRP Calverton, SDG 1803182 consisted of nine (9) drinking water samples and eight (8) FRB samples. All samples were analyzed for polyfluoroalkyl substances (PFAS). One (1) field duplicate sample pair, CAL-DW07-20180927 / CAL-DW-DUP01-20180927 was included in this SDG.

The samples were collected by Tetra Tech, Inc. on September 26 and 27, 2018 and analyzed by Vista Analytical Laboratory. All analyses were conducted in accordance with EPA Method 537 REV. 1.1 analytical and reporting protocols. The data contained in this SDG was validated at Stage 4 with regard to the following parameters:

- Data completeness
- * • Hold times/Sample Preservation
- * • Mass Calibration
- * • LC/MS/MS System Tuning and Performance
- * • Mass Spectral Acquisition Rate
- * • Instrument Sensitivity Check
- * • Ion Transition Check
- * • Asymmetry Factor Results
- * • Initial/Continuing Calibrations
- * • Laboratory Preparation/Method Blank Results
- * • Field Reagent Blank (FRB) Results
- * • Surrogate Spike Recoveries (Extraction Internal Standard Recoveries)
- * • Injection Internal Standard Recoveries
- * • Laboratory Fortified Blank/Laboratory Fortified Blank Duplicate Results
- * • Compound Identification

- * • Compound Quantitation
- * • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, and documentation supporting these findings is presented in Appendix C.

PFAS

Detected results reported below the Limit of Quantitation (LOQ) but above the Method Detection Limit (MDL) were qualified as estimated, (J). Non-detected results were reported to the limit of detection (LOD).

Additional Comments

The laboratory noted that samples CAL-DW06-20180926 and CAL-DW06-FRB-20180926 were not listed on the original chain of custody. A supplemental chain of custody was provided to the laboratory on October 2, 2018.

It was noted by the laboratory on the sample login checklist that the preservative Trizma was listed on the sample bottles but not on the chain of custody (COC). The data reviewer will advise the project team to include a reference on the COC that Trizma was added to each sample.

It was noted in the case narrative that the original laboratory fortified blank duplicate did not meet the method acceptance criteria. All samples were re-extracted within hold time. The laboratory reported the data from the re-extraction.

A matrix spike was not included in this data group. No action was taken on this issue.

Executive Summary

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Detected results below the LOQ were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017), the Environmental Protection Agency document EPA/600/R-08/092, Method 537, "Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)", (September 2009) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (2017). The text of this report has been formulated to address only those areas affecting data quality.



Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator



Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

TO: K. FRANCISCO
SDG: 1803182

PAGE 3

Attachments:

Appendix A - Qualified Analytical Results

Appendix B – Results as Reported by the Laboratory

Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

- A = Lab Blank Contamination
- B = Field Blank Contamination
- C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
- C01 = GC/MS Tuning Noncompliance
- D = MS/MSD Recovery Noncompliance
- E = LCS/LCSD Recovery Noncompliance
- F = Lab Duplicate Imprecision
- G = Field Duplicate Imprecision
- H = Holding Time Exceedance
- I = ICP Serial Dilution Noncompliance
- J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
- K = ICP Interference - includes ICS % R Noncompliance
- L = Instrument Calibration Range Exceedance
- M = Sample Preservation Noncompliance
- N = Internal Standard Noncompliance
- N01 = Internal Standard Recovery Noncompliance Dioxins
- N02 = Recovery Standard Noncompliance Dioxins
- N03 = Clean-up Standard Noncompliance Dioxins
- O = Poor Instrument Performance (i.e., base-time drifting)
- P = Uncertainty near detection limit ($< 2 \times$ IDL for inorganics and $<$ CRQL for organics)
- Q = Other problems (can encompass a number of issues; i.e. chromatography, interferences, etc.)
- R = Surrogates Recovery Noncompliance
- S = Pesticide/PCB Resolution
- T = % Breakdown Noncompliance for DDT and Endrin
- U = RPD between columns/detectors $>40\%$ for positive results determined via GC/HPLC
- V = Non-linear calibrations; correlation coefficient $r < 0.995$
- W = EMPC result
- X = Signal to noise response drop
- Y = Percent solids $<30\%$
- Z = Uncertainty at 2 standard deviations is greater than sample activity
- Z1 = Tentatively Identified Compound considered presumptively present
- Z2 = Tentatively Identified Compound column bleed
- Z3 = Tentatively Identified Compound aldol condensate
- Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
- Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08005-WE05 SDG: 1803182 FRACTION: PFAS MEDIA: WATER	NSAMPLE	CAL-DW01-20180926			CAL-DW01-FRB-20180926			CAL-DW02-20180926			CAL-DW02-FRB-20180926		
	LAB_ID	1803182-01			1803182-02			1803182-03			1803182-04		
	SAMP_DATE	9/26/2018			9/26/2018			9/26/2018			9/26/2018		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NEFOSA)		4.81	U		4.88	U		4.79	U		4.79	U	
N-METHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NMFOSA)		4.81	U		4.88	U		4.79	U		4.79	U	
PENTADEC AFLUOROOCTANOIC ACID (PFOA)		4.81	U		4.88	U		4.79	U		4.79	U	
PERFLUOROBUTANESULFONIC ACID (PFBS)		4.81	U		4.88	U		4.79	U		4.79	U	
PERFLUORODECANOIC ACID (PFDA)		4.81	U		4.88	U		4.79	U		4.79	U	
PERFLUORODODECANOIC ACID (PFDOA)		4.81	U		4.88	U		4.79	U		4.79	U	
PERFLUOROHEPTANOIC ACID (PFHPA)		4.81	U		4.88	U		4.79	U		4.79	U	
PERFLUOROHEXANESULFONIC ACID (PFHXS)		4.81	U		4.88	U		4.79	U		4.79	U	
PERFLUOROHEXANOIC ACID (PFHXA)		4.81	U		4.88	U		4.79	U		4.79	U	
PERFLUORONONANOIC ACID (PFNA)		4.81	U		4.88	U		4.79	U		4.79	U	
PERFLUOROOCTANESULFONIC ACID (PFOS)		4.81	U		4.88	U		4.79	U		4.79	U	
PERFLUOROTETRADECANOIC ACID (PFTEA)		4.81	U		4.88	U		4.79	U		4.79	U	
PERFLUOROTRIDECANOIC ACID (PFTRIA)		4.81	U		4.88	U		4.79	U		4.79	U	
PERFLUOROUNDECANOIC ACID (PFUNA)		4.81	U		4.88	U		4.79	U		4.79	U	

PROJ_NO: 08005-WE05 SDG: 1803182 FRACTION: PFAS MEDIA: WATER	NSAMPLE	CAL-DW03-20180926			CAL-DW03-FRB-20180926			CAL-DW04-20180927			CAL-DW04-FRB-20180927		
	LAB_ID	1803182-05			1803182-06			1803182-07			1803182-08		
	SAMP_DATE	9/26/2018			9/26/2018			9/27/2018			9/27/2018		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NEFOSA)		4.86	U		4.92	U		4.77	U		4.84	U	
N-METHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NMFOSA)		4.86	U		4.92	U		4.77	U		4.84	U	
PENTADECALUOROOCTANOIC ACID (PFOA)		5.09	J	P	4.92	U		4.77	U		4.84	U	
PERFLUOROBUTANESULFONIC ACID (PFBS)		4.86	U		4.92	U		4.77	U		4.84	U	
PERFLUORODECANOIC ACID (PFDA)		4.86	U		4.92	U		4.77	U		4.84	U	
PERFLUORODODECANOIC ACID (PFDOA)		4.86	U		4.92	U		4.77	U		4.84	U	
PERFLUOROHEPTANOIC ACID (PFHPA)		4.86	U		4.92	U		4.77	U		4.84	U	
PERFLUOROHEXANESULFONIC ACID (PFHXS)		4.86	U		4.92	U		4.77	U		4.84	U	
PERFLUOROHEXANOIC ACID (PFHXA)		5.46	J	P	4.92	U		4.77	U		4.84	U	
PERFLUORONONANOIC ACID (PFNA)		4.86	U		4.92	U		4.77	U		4.84	U	
PERFLUOROOCTANESULFONIC ACID (PFOS)		4.86	U		4.92	U		4.77	U		4.84	U	
PERFLUOROTETRADECANOIC ACID (PFTEA)		4.86	U		4.92	U		4.77	U		4.84	U	
PERFLUOROTRIDECANOIC ACID (PFTRIA)		4.86	U		4.92	U		4.77	U		4.84	U	
PERFLUOROUNDECANOIC ACID (PFUNA)		4.86	U		4.92	U		4.77	U		4.84	U	

PROJ_NO: 08005-WE05 SDG: 1803182 FRACTION: PFAS MEDIA: WATER	NSAMPLE	CAL-DW06-20180926			CAL-DW06-FRB-20180926			CAL-DW07-20180927			CAL-DW07-FRB-20180927		
	LAB_ID	1803182-16			1803182-17			1803182-09			1803182-10		
	SAMP_DATE	9/26/2018			9/26/2018			9/27/2018			9/27/2018		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NEFOSA)		4.86	U		4.84	U		4.9	U		4.79	U	
N-METHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NMFOSA)		4.86	U		4.84	U		4.9	U		4.79	U	
PENTADEC AFLUOROOCTANOIC ACID (PFOA)		4.86	U		4.84	U		4.9	U		4.79	U	
PERFLUOROBUTANESULFONIC ACID (PFBS)		4.86	U		4.84	U		4.9	U		4.79	U	
PERFLUORODECANOIC ACID (PFDA)		4.86	U		4.84	U		4.9	U		4.79	U	
PERFLUORODODECANOIC ACID (PFDOA)		4.86	U		4.84	U		4.9	U		4.79	U	
PERFLUOROHEPTANOIC ACID (PFHPA)		4.86	U		4.84	U		4.9	U		4.79	U	
PERFLUOROHEXANESULFONIC ACID (PFHXS)		4.86	U		4.84	U		4.9	U		4.79	U	
PERFLUOROHEXANOIC ACID (PFHXA)		4.86	U		4.84	U		4.9	U		4.79	U	
PERFLUORONONANOIC ACID (PFNA)		4.86	U		4.84	U		4.9	U		4.79	U	
PERFLUOROOCTANESULFONIC ACID (PFOS)		4.86	U		4.84	U		4.9	U		4.79	U	
PERFLUOROTETRADECANOIC ACID (PFTEA)		4.86	U		4.84	U		4.9	U		4.79	U	
PERFLUOROTRIDECANOIC ACID (PFTRIA)		4.86	U		4.84	U		4.9	U		4.79	U	
PERFLUOROUNDECANOIC ACID (PFUNA)		4.86	U		4.84	U		4.9	U		4.79	U	

PROJ_NO: 08005-WE05 SDG: 1803182 FRACTION: PFAS MEDIA: WATER	NSAMPLE	CAL-DW10-20180927			CAL-DW10-FRB-20180927			CAL-DW12-20180927			CAL-DW12-FRB-20180927		
	LAB_ID	1803182-12			1803182-13			1803182-14			1803182-15		
	SAMP_DATE	9/27/2018			9/27/2018			9/27/2018			9/27/2018		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NEFOSA)		4.77	U		4.81	U		4.88	U		4.86	U	
N-METHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NMFOSA)		4.77	U		4.81	U		4.88	U		4.86	U	
PENTADEC AFLUOROOCTANOIC ACID (PFOA)		4.77	U		4.81	U		4.88	U		4.86	U	
PERFLUOROBUTANESULFONIC ACID (PFBS)		3.37	J	P	4.81	U		4.88	U		4.86	U	
PERFLUORODECANOIC ACID (PFDA)		4.77	U		4.81	U		4.88	U		4.86	U	
PERFLUORODODECANOIC ACID (PFDOA)		4.77	U		4.81	U		4.88	U		4.86	U	
PERFLUOROHEPTANOIC ACID (PFHPA)		4.77	U		4.81	U		4.88	U		4.86	U	
PERFLUOROHEXANESULFONIC ACID (PFHXS)		4.77	U		4.81	U		4.88	U		4.86	U	
PERFLUOROHEXANOIC ACID (PFHXA)		4.77	U		4.81	U		4.88	U		4.86	U	
PERFLUORONONANOIC ACID (PFNA)		4.77	U		4.81	U		4.88	U		4.86	U	
PERFLUOROOCTANESULFONIC ACID (PFOS)		4.77	U		4.81	U		4.88	U		4.86	U	
PERFLUOROTETRADECANOIC ACID (PFTEA)		4.77	U		4.81	U		4.88	U		4.86	U	
PERFLUOROTRIDECANOIC ACID (PFTRIA)		4.77	U		4.81	U		4.88	U		4.86	U	
PERFLUOROUNDECANOIC ACID (PFUNA)		4.77	U		4.81	U		4.88	U		4.86	U	

PROJ_NO: 08005-WE05 SDG: 1803182 FRACTION: PFAS MEDIA: WATER	NSAMPLE	CAL-DW-DUP01-20180927		
	LAB_ID	1803182-11		
	SAMP_DATE	9/27/2018		
	QC_TYPE	NM		
	UNITS	NG/L		
	PCT_SOLIDS	0.0		
	DUP_OF	CAL-DW07-20180927		
PARAMETER		RESULT	VQL	QLCD
N-ETHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NEFOSA)		4.88	U	
N-METHYLPERFLUOROOCTANE SULFONAMIDOACETATE(NMFOSA)		4.88	U	
PENTADECAFLUOROOCTANOIC ACID (PFOA)		4.88	U	
PERFLUOROBUTANESULFONIC ACID (PFBS)		4.88	U	
PERFLUORODECANOIC ACID (PFDA)		4.88	U	
PERFLUORODODECANOIC ACID (PFDOA)		4.88	U	
PERFLUOROHEPTANOIC ACID (PFHPA)		4.88	U	
PERFLUOROHEXANESULFONIC ACID (PFHXS)		4.88	U	
PERFLUOROHEXANOIC ACID (PFHXA)		4.88	U	
PERFLUORONONANOIC ACID (PFNA)		4.88	U	
PERFLUOROOCTANESULFONIC ACID (PFOS)		4.88	U	
PERFLUOROTETRADECANOIC ACID (PFTEA)		4.88	U	
PERFLUOROTRIDECANOIC ACID (PFTRIA)		4.88	U	
PERFLUOROUNDECANOIC ACID (PFUNA)		4.88	U	

Appendix B

Results as Reported by the Laboratory

Sample ID: CAL-DW01-20180926							EPA Method 537				
Client Data Name: Tetra Tech Project: Calverton Off Base DW Sampling 112G08005- WE0 SDG: # WE05 Matrix: Drinking Water Date Collected: 26-Sep-18 08:12						Laboratory Data Lab Sample: 1803182-01 Date Received: 29-Sep-18 09:40 Column: BEH C18					
Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
PFHxA	307-24-4	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
PFHpA	375-85-9	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
PFHxS	355-46-4	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
PFOA	335-67-1	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
PFNA	375-95-1	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
PFOS	1763-23-1	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
PFDA	335-76-2	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
MeFOSAA	2355-31-9	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
EtFOSAA	2991-50-6	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
PFUnA	2058-94-8	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
PFDoA	307-55-1	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
PFTTrDA	72629-94-8	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
PFTeDA	376-06-7	ND	2.92	4.81	9.60		B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
Labeled Standards	Type	% Recovery	Limits			Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	104	70 - 130				B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
13C2-PFDA	SURR	98.1	70 - 130				B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1
d5-EtFOSAA	SURR	113	70 - 130				B8J0059	08-Oct-18	0.260 L	10-Oct-18 11:00	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW01-FRB-20180926							EPA Method 537				
Client Data						Laboratory Data					
Name:	Tetra Tech		Matrix:	QC Water		Lab Sample:	1803182-02		Column:	BEH C18	
Project:	Calverton Off Base DW Sampling 112G08005- WE0					Date Collected:	26-Sep-18 08:12				
SDG:	# WE05					Date Received:	29-Sep-18 09:40				
Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
PFHxA	307-24-4	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
PFHpA	375-85-9	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
PFHxS	355-46-4	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
PFOA	335-67-1	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
PFNA	375-95-1	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
PFOS	1763-23-1	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
PFDA	335-76-2	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
MeFOSAA	2355-31-9	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
EtFOSAA	2991-50-6	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
PFUnA	2058-94-8	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
PFDoA	307-55-1	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
PFTTrDA	72629-94-8	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
PFTeDA	376-06-7	ND	2.97	4.88	9.77		B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers		Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	95.6	70 - 130				B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
13C2-PFDA	SURR	83.4	70 - 130				B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1
d5-EtFOSAA	SURR	105	70 - 130				B8J0059	08-Oct-18	0.256 L	10-Oct-18 11:13	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW02-20180926										EPA Method 537	
Client Data Name: Tetra Tech											

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW02-FRB-20180926										EPA Method 537	
Client Data Name: Tetra Tech											

DL - Detection Limit

 LOD - Limit of Detection
 LOQ - Limit of quantitation

Results reported to the DL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW03-20180926							EPA Method 537				
Client Data						Laboratory Data					
Name:	Tetra Tech		Matrix:	Drinking Water		Lab Sample:	1803182-05		Column:	BEH C18	
Project:	Calverton Off Base DW Sampling 112G08005- WE0					Date Collected:	26-Sep-18 09:38				
SDG:	# WE05					Date Received:	29-Sep-18 09:40				
Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.96	4.86	9.74		B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
PFHxA	307-24-4	5.46	2.96	4.86	9.74	J	B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
PFHpA	375-85-9	ND	2.96	4.86	9.74		B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
PFHxS	355-46-4	ND	2.96	4.86	9.74		B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
PFOA	335-67-1	5.09	2.96	4.86	9.74	J	B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
PFNA	375-95-1	ND	2.96	4.86	9.74		B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
PFOS	1763-23-1	ND	2.96	4.86	9.74		B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
PFDA	335-76-2	ND	2.96	4.86	9.74		B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
MeFOSAA	2355-31-9	ND	2.96	4.86	9.74		B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
EtFOSAA	2991-50-6	ND	2.96	4.86	9.74		B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
PFUnA	2058-94-8	ND	2.96	4.86	9.74		B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
PFDoA	307-55-1	ND	2.96	4.86	9.74		B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
PFTTrDA	72629-94-8	ND	2.96	4.86	9.74		B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
PFTeDA	376-06-7	ND	2.96	4.86	9.74		B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers		Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	92.7	70 - 130				B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
13C2-PFDA	SURR	94.1	70 - 130				B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1
d5-EtFOSAA	SURR	115	70 - 130				B8J0059	08-Oct-18	0.257 L	10-Oct-18 11:52	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW03-FRB-20180926							EPA Method 537				
Client Data Name: Tetra Tech											

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW04-20180927							EPA Method 537				
Client Data Name: Tetra Tech Matrix: Drinking Water Project: Calverton Off Base DW Sampling 112G08005- WE0 Date Collected: 27-Sep-18 09:13 SDG: # WE05							Laboratory Data Lab Sample: 1803182-07 Column: BEH C18 Date Received: 29-Sep-18 09:40				
Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
PFHxA	307-24-4	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
PFHpA	375-85-9	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
PFHxS	355-46-4	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
PFOA	335-67-1	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
PFNA	375-95-1	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
PFOS	1763-23-1	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
PFDA	335-76-2	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
MeFOSAA	2355-31-9	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
EtFOSAA	2991-50-6	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
PFUnA	2058-94-8	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
PFDoA	307-55-1	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
PFTrDA	72629-94-8	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
PFTeDA	376-06-7	ND	2.90	4.77	9.53		B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers		Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	110	70 - 130				B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
13C2-PFDA	SURR	107	70 - 130				B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1
d5-EtFOSAA	SURR	118	70 - 130				B8J0059	08-Oct-18	0.262 L	10-Oct-18 16:19	1

DL - Detection Limit

 LOD - Limit of Detection
 LOQ - Limit of quantitation

Results reported to the DL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW04-FRB-20180927										EPA Method 537	
Client Data Name: Tetra Tech											

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW07-20180927										EPA Method 537	
Client Data Name: Tetra Tech											

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW07-FRB-20180927										EPA Method 537	
Client Data Name: Tetra Tech											

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW-DUP01-20180927										EPA Method 537	
Client Data Name: Tetra Tech											

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW10-20180927										EPA Method 537	
Client Data Name: Tetra Tech											

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW10-FRB-20180927							EPA Method 537				
Client Data Name: Tetra Tech											

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW12-20180927							EPA Method 537				
Client Data Name: Tetra Tech											

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW12-FRB-20180927										EPA Method 537	
Client Data Name: Tetra Tech											

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW06-20180926										EPA Method 537	
Client Data Name: Tetra Tech											

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CAL-DW06-FRB-20180926										EPA Method 537	
Client Data Name: Tetra Tech											

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Appendix C

Support Documentation



CHAIN OF CUSTODY

For Laboratory Use Only

Work Order #: 1803182 Temp: 0.3 °C

Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Calverton Off Base DW Sampling

Project ID: 112G08005-WE05

PO#:

Sampler: Lauren Donston

(name) James Cook

TAT (check one): Standard: ☐ 21 days
☐ 14 days ☒ 7 days Specify: _____

Invoice to: Name _____ Company Tetra Tech Address 5700 Lake Wright Dr Suite 102 Norfolk VA City _____ State _____ Ph# _____ Fax# _____

Relinquished by (printed name and signature) _____ Date _____ Time _____ Received by (printed name and signature) _____ Date _____ Time _____

Lauren Donston Lauren Donston 9/28/18 1700 FedEx

Relinquished by (printed name and signature) _____ Date _____ Time _____ Received by (printed name and signature) _____ Date _____ Time _____

FedEx

B. Benedict B. Benedict

09/29/18 1007

SHIP TO: Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 Ph: (916) 673-1520; Fax: (916) 673-0106				Method of Shipment: <u>FedEx</u>		Add Analysis(es) Requested		PFAS Isotope Dilution		USEPA Method 537		Comments
ATTN: <u>Sample Custodian</u>				Tracking No.:		Container(s)						
Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	List of 21	List of 21	List of 24	List of 24	List of 24	
CAL-DW01-20180926	<u>9/26/18</u>	<u>0812</u>		<u>2</u>	<u>P</u>	<u>DW</u>						
CAL-DW01-FRB-20180926		<u>0812</u>		<u>1</u>	<u>QA</u>							<u>FRB</u>
CAL-DW02-20180926		<u>1136</u>		<u>1</u>	<u>DW</u>							
CAL-DW02-FRB-20180926		<u>1136</u>		<u>1</u>	<u>QA</u>							<u>FRB</u>
CAL-DW03-20180926		<u>0938</u>		<u>1</u>	<u>DW</u>							
CAL-DW03-FRB-20180926		<u>0938</u>		<u>1</u>	<u>QA</u>							<u>FRB</u>
CAL-DW04-20180927	<u>9/27/18</u>	<u>0913</u>		<u>1</u>	<u>DW</u>							
CAL-DW04-FRB-20180927		<u>0913</u>		<u>1</u>	<u>QA</u>							<u>FRB</u>
CAL-DW07-20180927		<u>1035</u>		<u>1</u>	<u>DW</u>							
CAL-DW07-FRB-20180927		<u>1035</u>		<u>1</u>	<u>QA</u>							<u>FRB</u>

Special Instructions/Comments:

SEND
DOCUMENTATION
AND RESULTS TO:

Name: Megan Ved
 Company: Tetra Tech
 Address: 42 P Foster Plaza VII 6661 Anderson Dr.
 City: Pittsburgh State: PA Zip: 15220
 Phone: 412-921-7271 Fax: _____
 Email: Megan.Ved@tetratech.com

Container Types: P= HDPE, PJ= HDPE Jar
 O = Other: _____

Bottle Preservation Type: T = Thiosulfate,
 TZ = Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment,
 SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____



CHAIN OF CUSTODY

* supplemental

For Laboratory Use Only

Work Order #: 1803182 Temp: _____ °C
Storage ID: _____ Storage Secured: Yes ☐ No ☐

Project ID: 112603005 - WE05

PO#: _____

Sampler: Lauren Dorston

(name) James Cook

TAT Standard: ☐ 21 days
(check one): Rush (surcharge may apply)
☐ 14 days ☒ 7 days Specify: _____
State Ph# Fax#

Invoice to: Name Company Address City State Ph# Fax#

Relinquished by (printed name and signature) Date Time Received by (printed name and signature) Date Time

Lauren Dorston Lauren Dorston 9/28/18 (1700) FedEx

Relinquished by (printed name and signature) Date Time Received by (printed name and signature) Date Time

FedEx

B. Benedict B. Benedict 10/2/18 0950

SHIP TO: Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 Ph: (916) 673-1520; Fax: (916) 673-0106				Method of Shipment: <u>FedEx</u>				Add Analysis(es) Requested				PFAS Isotope Dilution				USEPA Method 537															
ATTN: <u>Sample Custodian</u>				Tracking No.: _____				Container(s)				PFAS Isotope Dilution				USEPA Method 537															
Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	Use of 21	Use of 21 Wilcoxon	Use of 24	Use of 24 Wilcoxon	Use of 28	Other: Please List Below	PFAS PFOS	USEPA PFAS List 6	PFAS List 14	Comments															
<u>CAL-DW06-20180926</u>	<u>9/26/18</u>	<u>1605</u>		<u>2</u>	<u>P</u>	<u>DW</u>																									
<u>CAL-DW06-FRB-20180926</u>	<u>↓</u>	<u>1605</u>		<u>2</u>	<u>P</u>	<u>GA</u>								<u>2</u>	<u>FRB</u>																

Special Instructions/Comments:

This COC was sent supplemental to the original form
sample cooler.

SEND DOCUMENTATION AND RESULTS TO:

Name: Megan Ved
Company: Tetra Tech
Address: Foster Plaza VII 661 Anderson Dr.
City: Pittsburgh State: PA Zip: 15220
Phone: (412) 921-7271 Fax: _____
Email: megan.ved@tetratech.com

Container Types: P= HDPE, PJ= HDPE Jar
O = Other: _____

Bottle Preservation Type: T = Thiosulfate,
TZ = Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment,
SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____



Sample Log in Checklist

PAGE # 1 of 1WO# 1803182SDG# WB05TAT 7

Section 1: Container Receipt

Delivered By: ☒ FedEx ☐ UPS ☐ On Trac ☐ GSO ☐ DHL ☐ Hand Delivered ☐ Other:			
Number of Containers	Arrival Date	Arrival time	Cooler Received LR-SLC Initiated By/Date
<u>1</u>	<u>9/29/18</u>	<u>0940</u>	<u>MBB</u>

Section 2: Sample Receipt Condition and Initial Storage

Container Condition	Chain of Custody	Preservation Type	Temperature	Storage Location	Initials/Date
☒ Shipping container intact ☒ Shipping seals intact ☒ Custody Seals present ☒ Custody seals intact	☒ COC present ☒ Multiple COC's: <u>2PS</u> ☒ "Relinquished By" Section complete	☒ Ice ☐ Blue Ice ☐ Dry Ice ☐ Other	Thermometer ID: <u>IR-4</u> ☐ Probe used Temp (uncorrected): <u>0.4</u> °C Temp (corrected): <u>0.3</u> °C	☒ WR2 ☐ WF2 ☐ NA	<u>MBB</u> <u>9/29/18</u>

Section 3: Sample Log In

Airbill/Trk # <u>8124 0808 9810</u>	
Shipping container ☒ Vista ☐ Client ☒ Retain ☐ Return ☐ Dispose	By/date <u>MBB 9/29/18</u>
Log In Time: <u>1222</u>	
COC clearly identifies: - Sample name - Sample matrix - Test method - Sample collection date or time - Collector's name - Preservation type	☒ Acceptable ☐ Not acceptable – anomaly form required
All samples present and accounted for on COC	<u>* Not on Chain of Custody</u> <u>MBB 9/29/18</u>
Sample IDs are legible	<u>MBB 9/29/18</u>
Samples conform to the description on the COC	<u>MBB 9/29/18</u>
Samples are intact and suitable for testing	<u>MBB 9/29/18</u>
Preservation documented as required: ☐ NA ☐ Na ₂ S ₂ O ₃ ☒ Trizma ☐ Other	<u>MBB 9/29/18</u>
Samples stored ☒ WR2 Shelf: <u>E3/B5</u> ☐ WF2 Shelf: <u> </u> ☐ R1 Shelf: <u> </u>	<u>MBB 9/29/18</u>
Comments: <u>* recd samples: CAL-DW06-FRB-20180926 A/B 09/26/18 1605</u> <u>CAL-DW06-20180926 ↓ ↓ ↓</u>	
<u>** TRIZMA LABELS ON SAMPLE CONTAINERS, NOTHING NOTED ON COC.</u>	

SDG Number # WE05

Vista Work Order No. 1803182

Case Narrative

Sample Condition on Receipt:

Nine drinking water samples and eight aqueous samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. Two samples were not listed on the original CoC; an additional CoC was received on October 2, 2018.

Analytical Notes:

EPA Method 537, Rev. 1.1

The samples were extracted and analyzed for a selected list of 14 PFAS using EPA Method 537, Rev. 1.1. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the method hold times. The samples were re-extracted because the original Laboratory Fortified Blank Duplicate did not meet the method acceptance criteria. The results from the second extractions have been reported.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

Two Laboratory Fortified Blanks (LFB/LFBD) and a Laboratory Reagent Blank (LRB) were extracted and analyzed with the preparation batch. No analytes were detected in the Laboratory Reagent Blank. The LFB/LFBD recoveries were within the method acceptance criteria.

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1803182-01	CAL-DW01-20180926	26-Sep-18 08:12	29-Sep-18 09:40	Polypropylene, 250mL
1803182-02	CAL-DW01-FRB-20180926	26-Sep-18 08:12	29-Sep-18 09:40	Polypropylene, 250mL
1803182-03	CAL-DW02-20180926	26-Sep-18 11:36	29-Sep-18 09:40	Polypropylene, 250mL
1803182-04	CAL-DW02-FRB-20180926	26-Sep-18 11:36	29-Sep-18 09:40	Polypropylene, 250mL
1803182-05	CAL-DW03-20180926	26-Sep-18 09:38	29-Sep-18 09:40	Polypropylene, 250mL
1803182-06	CAL-DW03-FRB-20180926	26-Sep-18 09:38	29-Sep-18 09:40	Polypropylene, 250mL
1803182-07	CAL-DW04-20180927	27-Sep-18 09:13	29-Sep-18 09:40	Polypropylene, 250mL
1803182-08	CAL-DW04-FRB-20180927	27-Sep-18 09:13	29-Sep-18 09:40	Polypropylene, 250mL
1803182-09	CAL-DW07-20180927	27-Sep-18 10:35	29-Sep-18 09:40	Polypropylene, 250mL
1803182-10	CAL-DW07-FRB-20180927	27-Sep-18 10:35	29-Sep-18 09:40	Polypropylene, 250mL
1803182-11	CAL-DW-DUP01-20180927	27-Sep-18 11:00	29-Sep-18 09:40	Polypropylene, 250mL
1803182-12	CAL-DW10-20180927	27-Sep-18 13:01	29-Sep-18 09:40	Polypropylene, 250mL
1803182-13	CAL-DW10-FRB-20180927	27-Sep-18 13:01	29-Sep-18 09:40	Polypropylene, 250mL
1803182-14	CAL-DW12-20180927	27-Sep-18 13:45	29-Sep-18 09:40	Polypropylene, 250mL
1803182-15	CAL-DW12-FRB-20180927	27-Sep-18 13:45	29-Sep-18 09:40	Polypropylene, 250mL
1803182-16	CAL-DW06-20180926	26-Sep-18 16:05	29-Sep-18 09:40	Polypropylene, 250mL
1803182-17	CAL-DW06-FRB-20180926	26-Sep-18 16:05	29-Sep-18 09:40	Polypropylene, 250mL

Vista Project: 1803182

Client Project: Calverton off Base DW Sampling 112G08005- WE05

Sample ID: LRB						EPA Method 537					
Client Data Name: Tetra Tech Matrix: Aqueous Project: Calverton Off Base DW Sampling 112G08005- WE0:						Laboratory Data Lab Sample: B8J0059-BLK1 Column: BEH C18					
Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
PFHxA	307-24-4	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
PFHpA	375-85-9	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
PFHxS	355-46-4	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
PFOA	335-67-1	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
PFNA	375-95-1	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
PFOS	1763-23-1	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
PFDA	335-76-2	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
MeFOSAA	2355-31-9	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
EtFOSAA	2991-50-6	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
PFUnA	2058-94-8	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
PFDoA	307-55-1	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
PFTrDA	72629-94-8	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
PFTeDA	376-06-7	ND	3.04	5.00	10.0		B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers		Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.5	70 - 130				B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
13C2-PFDA	SURR	101	70 - 130				B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1
d5-EtFOSAA	SURR	118	70 - 130				B8J0059	08-Oct-18	0.250 L	10-Oct-18 10:35	1

DL - Detection Limit

 LOD - Limit of Detection
 LOQ - Limit of quantitation

Results reported to the DL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: LFBD													EPA Method 537			
Name: Tetra Tech Project: Calverton Off Base DW Sampling 112G08005- W Matrix: Aqueous					Lab Sample: B8J0059-BS1/B8J0059-BSD1 QC Batch: B8J0059 Samp Size: 0.250/0.250 L					Date Extracted: 08-Oct-18 Column: BEH C18						
Analyte	CAS Number	LFB (ng/L)	LFB Spike Amt	LFB % Rec	LFB Quals	LFBD (ng/L)	LFBD Spike Amt	LFBD % Rec	RPD	LFBD Quals	%Rec Limits	RPD Limits	LFB Analyzed	LFB Dil	LFBD Analyzed	LFBD Dil
PFBS	375-73-5	36.0	35.4	102		41.8	35.4	118	15.1		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
PFHxA	307-24-4	36.4	40.0	91.0		41.5	40.0	104	13.0		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
PFHpA	375-85-9	37.0	40.0	92.5		40.8	40.0	102	9.61		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
PFHxS	355-46-4	37.7	36.4	103		40.7	36.4	112	7.68		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
PFOA	335-67-1	32.8	40.0	82.0		39.0	40.0	97.5	17.2		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
PFNA	375-95-1	37.6	40.0	94.0		39.9	40.0	99.7	5.96		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
PFOS	1763-23-1	36.0	37.0	97.4		35.5	37.0	96.0	1.41		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
PFDA	335-76-2	36.8	40.0	92.1		41.0	40.0	102	10.6		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
MeFOSAA	2355-31-9	46.6	40.0	116		46.9	40.0	117	0.633		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
EtFOSAA	2991-50-6	35.6	40.0	89.1		37.2	40.0	93.1	4.45		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
PFUnA	2058-94-8	33.6	40.0	84.0		39.0	40.0	97.5	14.9		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
PFDoA	307-55-1	31.1	40.0	77.8		33.6	40.0	83.9	7.52		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
PFTrDA	72629-94-8	31.8	40.0	79.6		38.3	40.0	95.7	18.4		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
PFTeDA	376-06-7	38.1	40.0	95.3		43.1	40.0	108	12.2		50-150		10-Oct-18 10:06	1	10-Oct-18 10:23	1
Labeled Standards		Type		LFB % Rec	LFB Quals			LFBD % Rec		LFBD Quals	Limits		LFB Analyzed	LFB Dil	LFBD Analyzed	LFBD Dil
13C2-PFHxA		SURR		89.5				98.9			70-130		10-Oct-18 10:06	1	10-Oct-18 10:23	1
13C2-PFDA		SURR		84.3				90.0			70-130		10-Oct-18 10:06	1	10-Oct-18 10:23	1
d5-EtFOSAA		SURR		90.8				93.6			70-130		10-Oct-18 10:06	1	10-Oct-18 10:23	1

**INJECTION INTERNAL STANDARD (IIS) AREAS,
AND
CONTINUING CALIBRATION VERIFICATIONS CCV)**

ICAL

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	ICAL Area	Area %
1 IPA	181010G1_1	Analyte	10			5732.11	0.00
2 ST181010G1-1 PFC CS-2 537 18J0403	181010G1_2	Analyte	10	4.23	5381.41	5732.11	93.88
3 B8J0059-BS1 LFB 0.25	181010G1_3	Analyte	10	4.23	5203.82	5732.11	90.78
4 B8J0059-BSD1 LFB 0.25	181010G1_4	Analyte	10	4.23	4890.77	5732.11	85.32
5 B8J0059-BLK1 LRB 0.25	181010G1_5	Analyte	10	4.23	4625.10	5732.11	80.69
6 1803042-01RE1 GWNT1809061100GGA 0.25256	181010G1_6	Analyte	10	4.22	5049.66	5732.11	88.09
7 1803182-01RE1 CAL-DW01-20180926 0.26041	181010G1_7	Analyte	10	4.23	4676.49	5732.11	81.58
8 1803182-02RE1 CAL-DW01-FRB-20180926 0.25577	181010G1_8	Analyte	10	4.23	4981.12	5732.11	86.90
9 1803182-03RE1 CAL-DW02-20180926 0.2606	181010G1_9	Analyte	10	4.23	5148.59	5732.11	89.82
10 1803182-04RE1 CAL-DW02-FRB-20180926 0.26079	181010G1_10	Analyte	10	4.23	4807.22	5732.11	83.86
11 1803182-05RE1 CAL-DW03-20180926 0.25658	181010G1_11	Analyte	10	4.23	5038.10	5732.11	87.89
12 1803182-06RE1 CAL-DW03-FRB-20180926 0.25439	181010G1_12	Analyte	10	4.23	4853.01	5732.11	84.66
13 1803182-07RE1 CAL-DW04-20180927 0.26231	181010G1_13	Analyte	10	4.22	4505.14	5732.11	78.59
14 1803182-08RE1 CAL-DW04-FRB-20180927 0.25762	181010G1_14	Analyte	10	4.23	4998.81	5732.11	87.21
15 1803182-09RE1 CAL-DW07-20180927 0.25519	181010G1_15	Analyte	10	4.23	4859.06	5732.11	84.77
16 IPA	181010G1_16	Analyte	10			5732.11	0.00
17 ST181010G1-2 PFC CS0 537 18J0405	181010G1_17	Analyte	10	4.23	5770.81	5732.11	100.68
18 1803182-10RE1 CAL-DW07-FRB-20180927 0.26078	181010G1_18	Analyte	10	4.23	4882.61	5732.11	85.18
19 1803182-11RE1 CAL-DW-DUP01-20180927 0.25593	181010G1_19	Analyte	10	4.23	5441.07	5732.11	94.92
20 1803182-12RE1 CAL-DW10-20180927 0.26193	181010G1_20	Analyte	10	4.23	5087.95	5732.11	88.76
21 1803182-13RE1 CAL-DW10-FRB-20180927 0.26042	181010G1_21	Analyte	10	4.23	4906.87	5732.11	85.60
22 1803182-14RE1 CAL-DW12-20180927 0.25591	181010G1_22	Analyte	10	4.23	5436.72	5732.11	94.85
23 1803182-15RE1 CAL-DW12-FRB-20180927 0.25667	181010G1_23	Analyte	10	4.23	5550.76	5732.11	96.84
24 1803182-16RE1 CAL-DW06-20180926 0.25687	181010G1_24	Analyte	10	4.23	5329.36	5732.11	92.97
25 1803182-17RE1 CAL-DW06-FRB-20180926 0.25758	181010G1_25	Analyte	10	4.22	5360.39	5732.11	93.52
26 1803188-03@10X DW-4 0.25433	181010G1_26	Analyte	10	4.23	540.74	5732.11	9.43
27 B8J0037-BSD1 LFB 0.25	181010G1_27	Analyte	10	4.23	4406.19	5732.11	76.87
28 1802863-02RE1 GWNT1808290930KER 0.25846	181010G1_28	Analyte	10	4.23	4222.59	5732.11	73.67
29 IPA	181010G1_29	Analyte	10			5732.11	0.00

KBF 10/10/2018

30 ST181010G1-3 PFC CS2 537 18J0407	181010G1_30	Analyte	10	4.23	5306.70	5732.11	92.58
31 1803182-07RE1 CAL-DW04-20180927 0.26231	181010G1_31	Analyte	10	4.23	4642.638	5732.11	80.99
32 IPA	181010G1_32	Analyte	10			5732.11	0.00
33 ST181010G1-4 PFC CS-2 537 18J0403	181010G1_33	Analyte	10	4.22	5855.096	5732.11	102.15

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	Area	ICAL Area	Area %
1 IPA	181010G1_1	Analyte	28.7			13457.00	0.00
2 ST181010G1-1 PFC CS-2 537 18J0403	181010G1_2	Analyte	28.7	4.63	10652.96	13457.00	79.16
3 B8J0059-BS1 LFB 0.25	181010G1_3	Analyte	28.7	4.63	9846.98	13457.00	73.17
4 B8J0059-BSD1 LFBD 0.25	181010G1_4	Analyte	28.7	4.63	9666.45	13457.00	71.83
5 B8J0059-BLK1 LRB 0.25	181010G1_5	Analyte	28.7	4.63	8796.26	13457.00	65.37
6 1803042-01RE1 GWNT1809061100GGA 0.25256	181010G1_6	Analyte	28.7	4.63	8895.35	13457.00	66.10
7 1803182-01RE1 CAL-DW01-20180926 0.26041	181010G1_7	Analyte	28.7	4.63	9728.18	13457.00	72.29
8 1803182-02RE1 CAL-DW01-FRB-20180926 0.25577	181010G1_8	Analyte	28.7	4.63	9401.01	13457.00	69.86
9 1803182-03RE1 CAL-DW02-20180926 0.2606	181010G1_9	Analyte	28.7	4.63	9412.66	13457.00	69.95
10 1803182-04RE1 CAL-DW02-FRB-20180926 0.26079	181010G1_10	Analyte	28.7	4.63	9788.19	13457.00	72.74
11 1803182-05RE1 CAL-DW03-20180926 0.25658	181010G1_11	Analyte	28.7	4.63	9249.43	13457.00	68.73
12 1803182-06RE1 CAL-DW03-FRB-20180926 0.25439	181010G1_12	Analyte	28.7	4.63	9794.71	13457.00	72.79
13 1803182-07RE1 CAL-DW04-20180927 0.26231	181010G1_13	Analyte	28.7	4.63	8752.76	13457.00	65.04
14 1803182-08RE1 CAL-DW04-FRB-20180927 0.25762	181010G1_14	Analyte	28.7	4.63	9549.23	13457.00	70.96
15 1803182-09RE1 CAL-DW07-20180927 0.25519	181010G1_15	Analyte	28.7	4.63	9717.79	13457.00	72.21
16 IPA	181010G1_16	Analyte	28.7			13457.00	0.00
17 ST181010G1-2 PFC CS0 537 18J0405	181010G1_17	Analyte	28.7	4.63	10389.53	13457.00	77.21
18 1803182-10RE1 CAL-DW07-FRB-20180927 0.26078	181010G1_18	Analyte	28.7	4.63	9418.03	13457.00	69.99
19 1803182-11RE1 CAL-DW-DUP01-20180927 0.25593	181010G1_19	Analyte	28.7	4.63	10110.08	13457.00	75.13
20 1803182-12RE1 CAL-DW10-20180927 0.26193	181010G1_20	Analyte	28.7	4.63	9644.49	13457.00	71.67
21 1803182-13RE1 CAL-DW10-FRB-20180927 0.26042	181010G1_21	Analyte	28.7	4.63	9718.74	13457.00	72.22
22 1803182-14RE1 CAL-DW12-20180927 0.25591	181010G1_22	Analyte	28.7	4.63	9949.04	13457.00	73.93
23 1803182-15RE1 CAL-DW12-FRB-20180927 0.25667	181010G1_23	Analyte	28.7	4.63	9437.84	13457.00	70.13
24 1803182-16RE1 CAL-DW06-20180926 0.25687	181010G1_24	Analyte	28.7	4.63	10476.15	13457.00	77.85
25 1803182-17RE1 CAL-DW06-FRB-20180926 0.25758	181010G1_25	Analyte	28.7	4.63	9700.45	13457.00	72.08

26 1803188-03@10X DW-4 0.25433	181010G1_26	Analyte	28.7	4.63	1089.45	13457.00	8.10
27 B8J0037-BSD1 LFB0 0.25	181010G1_27	Analyte	28.7	4.63	8552.42	13457.00	63.55
28 1802863-02RE1 GWNT1808290930KER 0.25846	181010G1_28	Analyte	28.7	4.63	8359.28	13457.00	62.12
29 IPA	181010G1_29	Analyte	28.7			13457.00	0.00
30 ST181010G1-3 PFC CS2 537 18J0407	181010G1_30	Analyte	28.7	4.62	10487.06	13457.00	77.93
31 1803182-07RE1 CAL-DW04-20180927 0.26231	181010G1_31	Analyte	28.7	4.63	9682.511	13457.00	71.95
32 IPA	181010G1_32	Analyte	28.7			13457.00	0.00
33 ST181010G1-4 PFC CS-2 537 18J0403	181010G1_33	Analyte	28.7	4.62	11176.83	13457.00	83.06

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. Conc	RT	Area	ICAL Area	Area %
1 IPA	181010G1_1	Analyte	40			14928.39	0.00
2 ST181010G1-1 PFC CS-2 537 18J0403	181010G1_2	Analyte	40	4.97	12765.24	14928.39	85.51
3 B8J0059-BS1 LFB 0.25	181010G1_3	Analyte	40	4.97	11939.50	14928.39	79.98
4 B8J0059-BSD1 LFB0 0.25	181010G1_4	Analyte	40	4.97	12087.40	14928.39	80.97
5 B8J0059-BLK1 LRB 0.25	181010G1_5	Analyte	40	4.97	10260.80	14928.39	68.73
6 1803042-01RE1 GWNT1809061100GGA 0.25256	181010G1_6	Analyte	40	4.97	12190.92	14928.39	81.66
7 1803182-01RE1 CAL-DW01-20180926 0.26041	181010G1_7	Analyte	40	4.97	11066.80	14928.39	74.13
8 1803182-02RE1 CAL-DW01-FRB-20180926 0.25577	181010G1_8	Analyte	40	4.97	10823.60	14928.39	72.50
9 1803182-03RE1 CAL-DW02-20180926 0.2606	181010G1_9	Analyte	40	4.97	12865.48	14928.39	86.18
10 1803182-04RE1 CAL-DW02-FRB-20180926 0.26079	181010G1_10	Analyte	40	4.97	12741.66	14928.39	85.35
11 1803182-05RE1 CAL-DW03-20180926 0.25658	181010G1_11	Analyte	40	4.97	11120.71	14928.39	74.49
12 1803182-06RE1 CAL-DW03-FRB-20180926 0.25439	181010G1_12	Analyte	40	4.97	10536.25	14928.39	70.58
13 1803182-07RE1 CAL-DW04-20180927 0.26231	181010G1_13	Analyte	40	4.97	10361.13	14928.39	69.41
14 1803182-08RE1 CAL-DW04-FRB-20180927 0.25762	181010G1_14	Analyte	40	4.97	11918.63	14928.39	79.84
15 1803182-09RE1 CAL-DW07-20180927 0.25519	181010G1_15	Analyte	40	4.96	11132.60	14928.39	74.57
16 IPA	181010G1_16	Analyte	40			14928.39	0.00
17 ST181010G1-2 PFC CS0 537 18J0405	181010G1_17	Analyte	40	4.97	12689.57	14928.39	85.00
18 1803182-10RE1 CAL-DW07-FRB-20180927 0.26078	181010G1_18	Analyte	40	4.97	11359.39	14928.39	76.09
19 1803182-11RE1 CAL-DW-DUP01-20180927 0.25593	181010G1_19	Analyte	40	4.97	11500.21	14928.39	77.04
20 1803182-12RE1 CAL-DW10-20180927 0.26193	181010G1_20	Analyte	40	4.97	10721.46	14928.39	71.82
21 1803182-13RE1 CAL-DW10-FRB-20180927 0.26042	181010G1_21	Analyte	40	4.97	11652.83	14928.39	78.06

22 1803182-14RE1 CAL-DW12-20180927 0.25591	181010G1_22	Analyte	40	4.96	11994.56	14928.39	80.35
23 1803182-15RE1 CAL-DW12-FRB-20180927 0.25667	181010G1_23	Analyte	40	4.96	12691.77	14928.39	85.02
24 1803182-16RE1 CAL-DW06-20180926 0.25687	181010G1_24	Analyte	40	4.97	11202.25	14928.39	75.04
25 1803182-17RE1 CAL-DW06-FRB-20180926 0.25758	181010G1_25	Analyte	40	4.97	11925.66	14928.39	79.89
26 1803188-03@10X DW-4 0.25433	181010G1_26	Analyte	40	4.96	1433.46	14928.39	9.60
27 B8J0037-BSD1 LFB0 0.25	181010G1_27	Analyte	40	4.96	11549.04	14928.39	77.36
28 1802863-02RE1 GWNT1808290930KER 0.25846	181010G1_28	Analyte	40	4.96	9848.03	14928.39	65.97
29 IPA	181010G1_29	Analyte	40			14928.39	0.00
30 ST181010G1-3 PFC CS2 537 18J0407	181010G1_30	Analyte	40	4.96	13924.45	14928.39	93.27
31 1803182-07RE1 CAL-DW04-20180927 0.26231	181010G1_31	Analyte	40	4.97	11792.1	14928.39	78.99
32 IPA	181010G1_32	Analyte	40			14928.39	0.00
33 ST181010G1-4 PFC CS-2 537 18J0403	181010G1_33	Analyte	40	4.97	13089.93	14928.39	87.68

CCAL

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	CCAL Area	Area %
1 IPA	181010G1_1	Analyte	10			5381.41	0.00
2 ST181010G1-1 PFC CS-2 537 18J0403	181010G1_2	Analyte	10	4.23	5381.41	5381.41	100.00
3 B8J0059-BS1 LFB 0.25	181010G1_3	Analyte	10	4.23	5203.82	5381.41	96.70
4 B8J0059-BSD1 LFB0 0.25	181010G1_4	Analyte	10	4.23	4890.77	5381.41	90.88
5 B8J0059-BLK1 LRB 0.25	181010G1_5	Analyte	10	4.23	4625.10	5381.41	85.95
6 1803042-01RE1 GWNT1809061100GGA 0.25256	181010G1_6	Analyte	10	4.22	5049.66	5381.41	93.84
7 1803182-01RE1 CAL-DW01-20180926 0.26041	181010G1_7	Analyte	10	4.23	4676.49	5381.41	86.90
8 1803182-02RE1 CAL-DW01-FRB-20180926 0.25577	181010G1_8	Analyte	10	4.23	4981.12	5381.41	92.56
9 1803182-03RE1 CAL-DW02-20180926 0.2606	181010G1_9	Analyte	10	4.23	5148.59	5381.41	95.67
10 1803182-04RE1 CAL-DW02-FRB-20180926 0.26079	181010G1_10	Analyte	10	4.23	4807.22	5381.41	89.33
11 1803182-05RE1 CAL-DW03-20180926 0.25658	181010G1_11	Analyte	10	4.23	5038.10	5381.41	93.62
12 1803182-06RE1 CAL-DW03-FRB-20180926 0.25439	181010G1_12	Analyte	10	4.23	4853.01	5381.41	90.18
13 1803182-07RE1 CAL-DW04-20180927 0.26231	181010G1_13	Analyte	10	4.22	4505.14	5381.41	83.72
14 1803182-08RE1 CAL-DW04-FRB-20180927 0.25762	181010G1_14	Analyte	10	4.23	4998.81	5381.41	92.89
15 1803182-09RE1 CAL-DW07-20180927 0.25519	181010G1_15	Analyte	10	4.23	4859.06	5381.41	90.29

KBF 10/10/2018

16 IPA	181010G1_16	Analyte	10			5381.41	0.00
17 ST181010G1-2 PFC CS0 537 18J0405	181010G1_17	Analyte	10	4.23	5770.81	5381.41	107.24
17 ST181010G1-2 PFC CS0 537 18J0405	181010G1_17	Analyte	10	4.23	5770.81	5770.81	100.00
18 1803182-10RE1 CAL-DW07-FRB-20180927 0.26078	181010G1_18	Analyte	10	4.23	4882.61	5770.81	84.61
19 1803182-11RE1 CAL-DW-DUP01-20180927 0.25593	181010G1_19	Analyte	10	4.23	5441.07	5770.81	94.29
20 1803182-12RE1 CAL-DW10-20180927 0.26193	181010G1_20	Analyte	10	4.23	5087.95	5770.81	88.17
21 1803182-13RE1 CAL-DW10-FRB-20180927 0.26042	181010G1_21	Analyte	10	4.23	4906.87	5770.81	85.03
22 1803182-14RE1 CAL-DW12-20180927 0.25591	181010G1_22	Analyte	10	4.23	5436.72	5770.81	94.21
23 1803182-15RE1 CAL-DW12-FRB-20180927 0.25667	181010G1_23	Analyte	10	4.23	5550.76	5770.81	96.19
24 1803182-16RE1 CAL-DW06-20180926 0.25687	181010G1_24	Analyte	10	4.23	5329.36	5770.81	92.35
25 1803182-17RE1 CAL-DW06-FRB-20180926 0.25758	181010G1_25	Analyte	10	4.22	5360.39	5770.81	92.89
26 1803188-03@10X DW-4 0.25433	181010G1_26	Analyte	10	4.23	540.74	5770.81	9.37
27 B8J0037-BSD1 LFBD 0.25	181010G1_27	Analyte	10	4.23	4406.19	5770.81	76.35
28 1802863-02RE1 GWNT1808290930KER 0.25846	181010G1_28	Analyte	10	4.23	4222.59	5770.81	73.17
29 IPA	181010G1_29	Analyte	10			5770.81	0.00
30 ST181010G1-3 PFC CS2 537 18J0407	181010G1_30	Analyte	10	4.23	5306.70	5770.81	91.96
30 ST181010G1-3 PFC CS2 537 18J0407	181010G1_30	Analyte	10	4.23	5306.70	5306.70	100.00
31 1803182-07RE1 CAL-DW04-20180927 0.26231	181010G1_31	Analyte	10	4.23	4642.638	5306.70	87.49
32 IPA	181010G1_32	Analyte	10			5306.70	0.00
33 ST181010G1-4 PFC CS-2 537 18J0403	181010G1_33	Analyte	10	4.22	5855.096	5306.70	110.33

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	Area	ICAL Area	Area %
1 IPA	181010G1_1	Analyte	28.7			10652.96	0.00
2 ST181010G1-1 PFC CS-2 537 18J0403	181010G1_2	Analyte	28.7	4.63	10652.96	10652.96	100.00
3 B8J0059-BS1 LFB 0.25	181010G1_3	Analyte	28.7	4.63	9846.98	10652.96	92.43
4 B8J0059-BSD1 LFBD 0.25	181010G1_4	Analyte	28.7	4.63	9666.45	10652.96	90.74
5 B8J0059-BLK1 LRB 0.25	181010G1_5	Analyte	28.7	4.63	8796.26	10652.96	82.57
6 1803042-01RE1 GWNT1809061100GGA 0.25256	181010G1_6	Analyte	28.7	4.63	8895.35	10652.96	83.50
7 1803182-01RE1 CAL-DW01-20180926 0.26041	181010G1_7	Analyte	28.7	4.63	9728.18	10652.96	91.32

KBF 10/10/2018

8	1803182-02RE1 CAL-DW01-FRB-20180926 0.25577	181010G1_8	Analyte	28.7	4.63	9401.01	10652.96	88.25
9	1803182-03RE1 CAL-DW02-20180926 0.2606	181010G1_9	Analyte	28.7	4.63	9412.66	10652.96	88.36
10	1803182-04RE1 CAL-DW02-FRB-20180926 0.26079	181010G1_10	Analyte	28.7	4.63	9788.19	10652.96	91.88
11	1803182-05RE1 CAL-DW03-20180926 0.25658	181010G1_11	Analyte	28.7	4.63	9249.43	10652.96	86.82
12	1803182-06RE1 CAL-DW03-FRB-20180926 0.25439	181010G1_12	Analyte	28.7	4.63	9794.71	10652.96	91.94
13	1803182-07RE1 CAL-DW04-20180927 0.26231	181010G1_13	Analyte	28.7	4.63	8752.76	10652.96	82.16
14	1803182-08RE1 CAL-DW04-FRB-20180927 0.25762	181010G1_14	Analyte	28.7	4.63	9549.23	10652.96	89.64
15	1803182-09RE1 CAL-DW07-20180927 0.25519	181010G1_15	Analyte	28.7	4.63	9717.79	10652.96	91.22
16	IPA	181010G1_16	Analyte	28.7			10652.96	0.00
17	ST181010G1-2 PFC CS0 537 18J0405	181010G1_17	Analyte	28.7	4.63	10389.53	10652.96	97.53
17	ST181010G1-2 PFC CS0 537 18J0405	181010G1_17	Analyte	28.7	4.63	10389.53	10389.53	100.00
18	1803182-10RE1 CAL-DW07-FRB-20180927 0.26078	181010G1_18	Analyte	28.7	4.63	9418.03	10389.53	90.65
19	1803182-11RE1 CAL-DW-DUP01-20180927 0.25593	181010G1_19	Analyte	28.7	4.63	10110.08	10389.53	97.31
20	1803182-12RE1 CAL-DW10-20180927 0.26193	181010G1_20	Analyte	28.7	4.63	9644.49	10389.53	92.83
21	1803182-13RE1 CAL-DW10-FRB-20180927 0.26042	181010G1_21	Analyte	28.7	4.63	9718.74	10389.53	93.54
22	1803182-14RE1 CAL-DW12-20180927 0.25591	181010G1_22	Analyte	28.7	4.63	9949.04	10389.53	95.76
23	1803182-15RE1 CAL-DW12-FRB-20180927 0.25667	181010G1_23	Analyte	28.7	4.63	9437.84	10389.53	90.84
24	1803182-16RE1 CAL-DW06-20180926 0.25687	181010G1_24	Analyte	28.7	4.63	10476.15	10389.53	100.83
25	1803182-17RE1 CAL-DW06-FRB-20180926 0.25758	181010G1_25	Analyte	28.7	4.63	9700.45	10389.53	93.37
26	1803188-03@10X DW-4 0.25433	181010G1_26	Analyte	28.7	4.63	1089.45	10389.53	10.49
27	B8J0037-BSD1 LFBD 0.25	181010G1_27	Analyte	28.7	4.63	8552.42	10389.53	82.32
28	1802863-02RE1 GWNT1808290930KER 0.25846	181010G1_28	Analyte	28.7	4.63	8359.28	10389.53	80.46
29	IPA	181010G1_29	Analyte	28.7			10389.53	0.00
30	ST181010G1-3 PFC CS2 537 18J0407	181010G1_30	Analyte	28.7	4.62	10487.06	10389.53	100.94
30	ST181010G1-3 PFC CS2 537 18J0407	181010G1_30	Analyte	28.7	4.62	10487.06	10487.06	100.00
31	1803182-07RE1 CAL-DW04-20180927 0.26231	181010G1_31	Analyte	28.7	4.63	9682.511	10487.06	92.33
32	IPA	181010G1_32	Analyte	28.7			10487.06	0.00
33	ST181010G1-4 PFC CS-2 537 18J0403	181010G1_33	Analyte	28.7	4.62	11176.83	10487.06	106.58

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. Conc	RT	Area	CCAL Area	Area %
1 IPA	181010G1_1	Analyte	40			12765.24	0.00
2 ST181010G1-1 PFC CS-2 537 18J0403	181010G1_2	Analyte	40	4.97	12765.24	12765.24	100.00
3 B8J0059-BS1 LFB 0.25	181010G1_3	Analyte	40	4.97	11939.50	12765.24	93.53
4 B8J0059-BS1 LFB 0.25	181010G1_4	Analyte	40	4.97	12087.40	12765.24	94.69
5 B8J0059-BLK1 LRB 0.25	181010G1_5	Analyte	40	4.97	10260.80	12765.24	80.38
6 1803042-01RE1 GWNT1809061100GGA 0.25256	181010G1_6	Analyte	40	4.97	12190.92	12765.24	95.50
7 1803182-01RE1 CAL-DW01-20180926 0.26041	181010G1_7	Analyte	40	4.97	11066.80	12765.24	86.69
8 1803182-02RE1 CAL-DW01-FRB-20180926 0.25577	181010G1_8	Analyte	40	4.97	10823.60	12765.24	84.79
9 1803182-03RE1 CAL-DW02-20180926 0.2606	181010G1_9	Analyte	40	4.97	12865.48	12765.24	100.79
10 1803182-04RE1 CAL-DW02-FRB-20180926 0.26079	181010G1_10	Analyte	40	4.97	12741.66	12765.24	99.82
11 1803182-05RE1 CAL-DW03-20180926 0.25658	181010G1_11	Analyte	40	4.97	11120.71	12765.24	87.12
12 1803182-06RE1 CAL-DW03-FRB-20180926 0.25439	181010G1_12	Analyte	40	4.97	10536.25	12765.24	82.54
13 1803182-07RE1 CAL-DW04-20180927 0.26231	181010G1_13	Analyte	40	4.97	10361.13	12765.24	81.17
14 1803182-08RE1 CAL-DW04-FRB-20180927 0.25762	181010G1_14	Analyte	40	4.97	11918.63	12765.24	93.37
15 1803182-09RE1 CAL-DW07-20180927 0.25519	181010G1_15	Analyte	40	4.96	11132.60	12765.24	87.21
16 IPA	181010G1_16	Analyte	40			12765.24	0.00
17 ST181010G1-2 PFC CS0 537 18J0405	181010G1_17	Analyte	40	4.97	12689.57	12765.24	99.41
17 ST181010G1-2 PFC CS0 537 18J0405	181010G1_17	Analyte	40	4.97	12689.57	12689.57	100.00
18 1803182-10RE1 CAL-DW07-FRB-20180927 0.26078	181010G1_18	Analyte	40	4.97	11359.39	12689.57	89.52
19 1803182-11RE1 CAL-DW-DUP01-20180927 0.25593	181010G1_19	Analyte	40	4.97	11500.21	12689.57	90.63
20 1803182-12RE1 CAL-DW10-20180927 0.26193	181010G1_20	Analyte	40	4.97	10721.46	12689.57	84.49
21 1803182-13RE1 CAL-DW10-FRB-20180927 0.26042	181010G1_21	Analyte	40	4.97	11652.83	12689.57	91.83
22 1803182-14RE1 CAL-DW12-20180927 0.25591	181010G1_22	Analyte	40	4.96	11994.56	12689.57	94.52
23 1803182-15RE1 CAL-DW12-FRB-20180927 0.25667	181010G1_23	Analyte	40	4.96	12691.77	12689.57	100.02
24 1803182-16RE1 CAL-DW06-20180926 0.25687	181010G1_24	Analyte	40	4.97	11202.25	12689.57	88.28
25 1803182-17RE1 CAL-DW06-FRB-20180926 0.25758	181010G1_25	Analyte	40	4.97	11925.66	12689.57	93.98
26 1803188-03@10X DW-4 0.25433	181010G1_26	Analyte	40	4.96	1433.46	12689.57	11.30
27 B8J0037-BS1 LFB 0.25	181010G1_27	Analyte	40	4.96	11549.04	12689.57	91.01
28 1802863-02RE1 GWNT1808290930KER 0.25846	181010G1_28	Analyte	40	4.96	9848.03	12689.57	77.61

29 IPA	181010G1_29 Analyte	40			12689.57	0.00
30 ST181010G1-3 PFC CS2 537 18J0407	181010G1_30 Analyte	40	4.96	13924.45	12689.57	109.73
30 ST181010G1-3 PFC CS2 537 18J0407	181010G1_30 Analyte	40	4.96	13924.45	13924.45	100.00
31 1803182-07RE1 CAL-DW04-20180927 0.26231	181010G1_31 Analyte	40	4.97	11792.1	13924.45	84.69
32 IPA	181010G1_32 Analyte	40			13924.45	0.00
33 ST181010G1-4 PFC CS-2 537 18J0403	181010G1_33 Analyte	40	4.97	13089.93	13924.45	94.01

CCV

Dataset: X:\G1.PRO\Results\2018\181010G1\181010G1-2.qld

Last Altered: Thursday, October 11, 2018 09:11:46 Pacific Daylight Time

Printed: Thursday, October 11, 2018 09:12:01 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1010.mdb 11 Oct 2018 09:11:43

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_10-05-18_L14.cdb 09 Oct 2018 10:37:25

✓ 10/11/18

Name: 181010G1_2, Date: 10-Oct-2018, Time: 09:47:07, ID: ST181010G1-1 PFC CS-2 537 18J0403, Description: PFC CS-2 537 18J0403

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	298.8 > 80.2	2.24e2	1.07e4	1.00		2.91	2.91	0.604	0.811	91.3
2	2 PFHxA	312.8 > 269.0	5.48e2	5.38e3	1.00		3.29	3.29	1.02	0.987	98.7
3	3 PFHpA	362.8 > 319.0	4.96e2	5.38e3	1.00		3.81	3.81	0.922	0.856	85.6
4	4 PFHxS	398.7 > 80.2	2.50e2	1.07e4	1.00		3.93	3.93	0.674	0.940	103.1
5	5 PFOA	412.7 > 368.9	4.93e2	5.38e3	1.00		4.23	4.23	0.917	0.887	88.7
6	6 PFNA	462.8 > 419.0	4.79e2	5.38e3	1.00		4.58	4.58	0.890	0.919	91.9
7	7 PFOS	498.7 > 80.2	1.03e2	1.07e4	1.00		4.63	4.63	0.276	0.735	79.2
8	8 PFDA	512.8 > 468.9	5.66e2	5.38e3	1.00		4.84	4.84	1.05	0.816	81.6
9	9 N-MeFOSAA	569.8 > 419.0	2.17e2	1.28e4	1.00		4.97	4.97	0.678	0.968	96.8
10	10 N-EtFOSAA	583.8 > 419.0	2.03e2	1.28e4	1.00		5.11	5.11	0.636	0.982	98.2
11	11 PFUnA	562.7 > 518.9	6.77e2	5.38e3	1.00		5.12	5.12	1.26	0.885	88.5
12	12 PFDoA	612.8 > 569.0	4.99e2	5.38e3	1.00		5.37	5.37	0.926	0.765	76.5
13	13 PFTrDA	662.8 > 619.0	5.90e2	5.38e3	1.00		5.59	5.59	1.10	0.889	88.9
14	14 PFTeDA	712.8 > 669.0	7.57e2	5.38e3	1.00		5.76	5.76	1.41	1.08	107.7
15	15 13C2-PFHxA	314.9 > 270.0	5.75e3	5.38e3	1.00	1.102	3.30	3.29	10.7	9.70	97.0
16	16 13C2-PFDA	514.8 > 470.0	5.88e3	5.38e3	1.00	1.199	4.87	4.84	10.9	9.12	91.2
17	17 d5-N-EtFOSAA	588.8 > 419.0	1.12e4	1.28e4	1.00	0.820	5.10	5.10	35.0	42.7	106.7
18	18 13C2-PFOA	414.8 > 370.0	5.38e3	5.38e3	1.00	1.000	4.23	4.23	10.0	10.0	100.0
19	19 13C4-PFOS	502.8 > 80.2	1.07e4	1.07e4	1.00	1.000	4.63	4.63	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	572.7 > 419.0	1.28e4	1.28e4	1.00	1.000	4.97	4.97	40.0	40.0	100.0

KBF 10/11/18

Dataset: Untitled

Last Altered: Thursday, October 11, 2018 09:20:47 Pacific Daylight Time
Printed: Thursday, October 11, 2018 09:21:01 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1010.mdb 11 Oct 2018 09:11:43
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_10-05-18_L14.cdb 09 Oct 2018 10:37:25

Compound name: PFBS

	# Name	ID	Acq.Date	Acq.Time
1	1 181010G1_1	IPA	10-Oct-18	09:35:02
2	2 181010G1_2	ST181010G1-1 PFC CS-2 537 18J0403	10-Oct-18	09:47:07
3	3 181010G1_3	B8J0059-BS1 LFB 0.25	10-Oct-18	10:06:40
4	4 181010G1_4	B8J0059-BSD1 LFBD 0.25	10-Oct-18	10:23:03
5	5 181010G1_5	B8J0059-BLK1 LRB 0.25	10-Oct-18	10:35:04
6	6 181010G1_6	1803042-01RE1 GWNT1809061100GG...	10-Oct-18	10:48:02
7	7 181010G1_7	1803182-01RE1 CAL-DW01-20180926 ...	10-Oct-18	11:00:59
8	8 181010G1_8	1803182-02RE1 CAL-DW01-FRB-2018...	10-Oct-18	11:13:57
9	9 181010G1_9	1803182-03RE1 CAL-DW02-20180926 ...	10-Oct-18	11:26:54
10	10 181010G1_10	1803182-04RE1 CAL-DW02-FRB-2018...	10-Oct-18	11:39:52
11	11 181010G1_11	1803182-05RE1 CAL-DW03-20180926 ...	10-Oct-18	11:52:58
12	12 181010G1_12	1803182-06RE1 CAL-DW03-FRB-2018...	10-Oct-18	12:05:58
13	13 181010G1_13	1803182-07RE1 CAL-DW04-20180927 ...	10-Oct-18	12:18:56
14	14 181010G1_14	1803182-08RE1 CAL-DW04-FRB-2018...	10-Oct-18	12:31:57
15	15 181010G1_15	1803182-09RE1 CAL-DW07-20180927 ...	10-Oct-18	12:45:08
16	16 181010G1_16	IPA	10-Oct-18	12:57:57
17	17 181010G1_17	ST181010G1-2 PFC CS0 537 18J0405	10-Oct-18	13:10:55
18	18 181010G1_18	1803182-10RE1 CAL-DW07-FRB-2018...	10-Oct-18	13:23:54
19	19 181010G1_19	1803182-11RE1 CAL-DW-DUP01-2018...	10-Oct-18	13:36:47
20	20 181010G1_20	1803182-12RE1 CAL-DW10-20180927 ...	10-Oct-18	13:49:45
21	21 181010G1_21	1803182-13RE1 CAL-DW10-FRB-2018...	10-Oct-18	14:05:30
22	22 181010G1_22	1803182-14RE1 CAL-DW12-20180927 ...	10-Oct-18	14:17:30
23	23 181010G1_23	1803182-15RE1 CAL-DW12-FRB-2018...	10-Oct-18	14:30:27
24	24 181010G1_24	1803182-16RE1 CAL-DW06-20180926 ...	10-Oct-18	14:43:24
25	25 181010G1_25	1803182-17RE1 CAL-DW06-FRB-2018...	10-Oct-18	14:56:22
26	26 181010G1_26	1803188-03@10X DW-4 0.25433	10-Oct-18	15:09:33
27	27 181010G1_27	B8J0037-BSD1 LFBD 0.25	10-Oct-18	15:22:18
28	28 181010G1_28	1802863-02RE1 GWNT1808290930KE...	10-Oct-18	15:35:23
29	29 181010G1_29	IPA	10-Oct-18	15:48:20
30	30 181010G1_30	ST181010G1-3 PFC CS2 537 18J0407	10-Oct-18	16:01:17
31	31 181010G1_31	1803182-07RE1 CAL-DW04-20180927 ...	10-Oct-18	16:19:18
32	32 181010G1_32	IPA	10-Oct-18	16:34:25

Dataset: Untitled

Last Altered: Thursday, October 11, 2018 09:20:47 Pacific Daylight Time

Printed: Thursday, October 11, 2018 09:21:01 Pacific Daylight Time

Compound name: PFBS

	# Name	ID	Acq.Date	Acq.Time
33	33 181010G1_33	ST181010G1-4 PFC CS-2 537 18J0403	10-Oct-18	16:46:28

Dataset: X:\G1.PRO\Results\2018\181010G1\181010G1-17.qld

CCV

Last Altered: Thursday, October 11, 2018 09:13:49 Pacific Daylight Time

Printed: Thursday, October 11, 2018 09:14:13 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1010.mdb 11 Oct 2018 09:11:43

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_10-05-18_L14.cdb 09 Oct 2018 10:37:25

Name: 181010G1_17, Date: 10-Oct-2018, Time: 13:10:55, ID: ST181010G1-2 PFC CS0 537 18J0405, Description: PFC CS0 537 18J0405

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	298.8 > 80.2	1.31e3	1.04e4	1.00		2.91	2.91	3.62	4.86	109.4
2	2 PFHxA	312.8 > 269.0	2.67e3	5.77e3	1.00		3.29	3.29	4.63	4.48	89.7
3	3 PFHpA	362.8 > 319.0	2.85e3	5.77e3	1.00		3.80	3.80	4.93	4.58	91.6
4	4 PFHxS	398.7 > 80.2	1.35e3	1.04e4	1.00		3.93	3.93	3.72	5.19	113.7
5	5 PFOA	412.7 > 368.9	2.44e3	5.77e3	1.00		4.23	4.23	4.22	4.09	81.7
6	6 PFNA	462.8 > 419.0	2.58e3	5.77e3	1.00		4.57	4.57	4.46	4.60	92.1
7	7 PFOS	498.7 > 80.2	6.13e2	1.04e4	1.00		4.63	4.63	1.69	4.50	97.1
8	8 PFDA	512.8 > 468.9	3.15e3	5.77e3	1.00		4.84	4.84	5.46	4.23	84.6
9	9 N-MeFOSAA	569.8 > 419.0	1.18e3	1.27e4	1.00		4.97	4.97	3.72	5.30	106.0
10	10 N-EtFOSAA	583.8 > 419.0	1.08e3	1.27e4	1.00		5.10	5.11	3.40	5.25	105.0
11	11 PFUnA	562.7 > 518.9	3.63e3	5.77e3	1.00		5.11	5.12	6.29	4.42	88.5
12	12 PFDoA	612.8 > 569.0	2.92e3	5.77e3	1.00		5.37	5.37	5.07	4.18	83.7
13	13 PFTrDA	662.8 > 619.0	3.11e3	5.77e3	1.00		5.58	5.58	5.39	4.37	87.4
14	14 PFTeDA	712.8 > 669.0	3.78e3	5.77e3	1.00		5.76	5.75	6.55	5.01	100.2
15	15 13C2-PFHxA	314.9 > 270.0	5.84e3	5.77e3	1.00	1.102	3.29	3.29	10.1	9.19	91.9
16	16 13C2-PFDA	514.8 > 470.0	6.24e3	5.77e3	1.00	1.199	4.86	4.84	10.8	9.01	90.1
17	17 d5-N-EtFOSAA	588.8 > 419.0	1.21e4	1.27e4	1.00	0.820	5.10	5.10	38.1	46.5	116.3
18	18 13C2-PFOA	414.8 > 370.0	5.77e3	5.77e3	1.00	1.000	4.23	4.23	10.0	10.0	100.0
19	19 13C4-PFOS	502.8 > 80.2	1.04e4	1.04e4	1.00	1.000	4.63	4.63	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	572.7 > 419.0	1.27e4	1.27e4	1.00	1.000	4.97	4.97	40.0	40.0	100.0

Dataset: Untitled

Last Altered: Thursday, October 11, 2018 09:20:47 Pacific Daylight Time
Printed: Thursday, October 11, 2018 09:21:01 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1010.mdb 11 Oct 2018 09:11:43
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_10-05-18_L14.cdb 09 Oct 2018 10:37:25

Compound name: PFBS

	# Name	ID	Acq.Date	Acq.Time
1	1 181010G1_1	IPA	10-Oct-18	09:35:02
2	2 181010G1_2	ST181010G1-1 PFC CS-2 537 18J0403	10-Oct-18	09:47:07
3	3 181010G1_3	B8J0059-BS1 LFB 0.25	10-Oct-18	10:06:40
4	4 181010G1_4	B8J0059-BSD1 LFBD 0.25	10-Oct-18	10:23:03
5	5 181010G1_5	B8J0059-BLK1 LRB 0.25	10-Oct-18	10:35:04
6	6 181010G1_6	1803042-01RE1 GWNT1809061100GG...	10-Oct-18	10:48:02
7	7 181010G1_7	1803182-01RE1 CAL-DW01-20180926 ...	10-Oct-18	11:00:59
8	8 181010G1_8	1803182-02RE1 CAL-DW01-FRB-2018...	10-Oct-18	11:13:57
9	9 181010G1_9	1803182-03RE1 CAL-DW02-20180926 ...	10-Oct-18	11:26:54
10	10 181010G1_10	1803182-04RE1 CAL-DW02-FRB-2018...	10-Oct-18	11:39:52
11	11 181010G1_11	1803182-05RE1 CAL-DW03-20180926 ...	10-Oct-18	11:52:58
12	12 181010G1_12	1803182-06RE1 CAL-DW03-FRB-2018...	10-Oct-18	12:05:58
13	13 181010G1_13	1803182-07RE1 CAL-DW04-20180927 ...	10-Oct-18	12:18:56
14	14 181010G1_14	1803182-08RE1 CAL-DW04-FRB-2018...	10-Oct-18	12:31:57
15	15 181010G1_15	1803182-09RE1 CAL-DW07-20180927 ...	10-Oct-18	12:45:08
16	16 181010G1_16	IPA	10-Oct-18	12:57:57
17	17 181010G1_17	ST181010G1-2 PFC CS0 537 18J0405	10-Oct-18	13:10:55
18	18 181010G1_18	1803182-10RE1 CAL-DW07-FRB-2018...	10-Oct-18	13:23:54
19	19 181010G1_19	1803182-11RE1 CAL-DW-DUP01-2018...	10-Oct-18	13:36:47
20	20 181010G1_20	1803182-12RE1 CAL-DW10-20180927 ...	10-Oct-18	13:49:45
21	21 181010G1_21	1803182-13RE1 CAL-DW10-FRB-2018...	10-Oct-18	14:05:30
22	22 181010G1_22	1803182-14RE1 CAL-DW12-20180927 ...	10-Oct-18	14:17:30
23	23 181010G1_23	1803182-15RE1 CAL-DW12-FRB-2018...	10-Oct-18	14:30:27
24	24 181010G1_24	1803182-16RE1 CAL-DW06-20180926 ...	10-Oct-18	14:43:24
25	25 181010G1_25	1803182-17RE1 CAL-DW06-FRB-2018...	10-Oct-18	14:56:22
26	26 181010G1_26	1803188-03@10X DW-4 0.25433	10-Oct-18	15:09:33
27	27 181010G1_27	B8J0037-BSD1 LFBD 0.25	10-Oct-18	15:22:18
28	28 181010G1_28	1802863-02RE1 GWNT1808290930KE...	10-Oct-18	15:35:23
29	29 181010G1_29	IPA	10-Oct-18	15:48:20
30	30 181010G1_30	ST181010G1-3 PFC CS2 537 18J0407	10-Oct-18	16:01:17
31	31 181010G1_31	1803182-07RE1 CAL-DW04-20180927 ...	10-Oct-18	16:19:18
32	32 181010G1_32	IPA	10-Oct-18	16:34:25

Dataset: Untitled

Last Altered: Thursday, October 11, 2018 09:20:47 Pacific Daylight Time
Printed: Thursday, October 11, 2018 09:21:01 Pacific Daylight Time

Compound name: PFBS

	# Name	ID	Acq.Date	Acq.Time
33	33 181010G1_33	ST181010G1-4 PFC CS-2 537 18J0403	10-Oct-18	16:46:28

Dataset: X:\G1.PRO\Results\2018\181010G1\181010G1-30.qld

CCV

Last Altered: Thursday, October 11, 2018 09:16:35 Pacific Daylight Time

Printed: Thursday, October 11, 2018 09:17:04 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1010.mdb 11 Oct 2018 09:11:43

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_10-05-18_L14.cdb 09 Oct 2018 10:37:25

Van 10/11/18

Name: 181010G1_30, Date: 10-Oct-2018, Time: 16:01:17, ID: ST181010G1-3 PFC CS2 537 18J0407, Description: PFC CS2 537 18J0407

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	298.8 > 80.2	5.88e3	1.05e4	1.00		2.90	2.91	16.1	21.6	97.8
2	2 PFHxA	312.8 > 269.0	1.23e4	5.35e3	1.00		3.29	3.29	22.9	22.2	88.8
3	3 PFHpA	362.8 > 319.0	1.27e4	5.35e3	1.00		3.80	3.81	23.7	22.0	88.0
4	4 PFHxS	398.7 > 80.2	5.90e3	1.05e4	1.00		3.92	3.93	16.1	22.5	98.8
5	5 PFOA	412.7 > 368.9	1.23e4	5.35e3	1.00		4.23	4.23	22.9	22.2	88.7
6	6 PFNA	462.8 > 419.0	1.17e4	5.35e3	1.00		4.57	4.56	21.8	22.5	90.2
7	7 PFOS	498.7 > 80.2	2.84e3	1.05e4	1.00		4.62	4.62	7.78	20.7	89.5
8	8 PFDA	512.8 > 468.9	1.54e4	5.35e3	1.00		4.84	4.84	28.7	22.2	88.9
9	9 N-MeFOSAA	569.8 > 419.0	6.23e3	1.39e4	1.00		4.96	4.97	17.9	25.5	102.2
10	10 N-EtFOSAA	583.8 > 419.0	5.79e3	1.39e4	1.00		5.10	5.10	16.6	25.7	102.8
11	11 PFUnA	562.7 > 518.9	1.70e4	5.35e3	1.00		5.11	5.11	31.8	22.4	89.5
12	12 PFDoA	612.8 > 569.0	1.32e4	5.35e3	1.00		5.37	5.37	24.6	20.3	81.4
13	13 PFTpDA	662.8 > 619.0	1.40e4	5.35e3	1.00		5.58	5.58	26.1	21.2	84.8
14	14 PFTeDA	712.8 > 669.0	1.72e4	5.35e3	1.00		5.76	5.75	32.1	24.6	98.2
15	15 13C2-PFHxA	314.9 > 270.0	5.59e3	5.35e3	1.00	1.102	3.29	3.29	10.5	9.49	94.9
16	16 13C2-PFDA	514.8 > 470.0	5.97e3	5.35e3	1.00	1.199	4.86	4.84	11.2	9.31	93.1
17	17 d5-N-EtFOSAA	588.8 > 419.0	1.25e4	1.39e4	1.00	0.820	5.09	5.09	36.0	44.0	109.9
18	18 13C2-PFOA	414.8 > 370.0	5.35e3	5.35e3	1.00	1.000	4.23	4.23	10.0	10.0	100.0
19	19 13C4-PFOS	502.8 > 80.2	1.05e4	1.05e4	1.00	1.000	4.63	4.62	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	572.7 > 419.0	1.39e4	1.39e4	1.00	1.000	4.97	4.96	40.0	40.0	100.0

10/11/18

Dataset: Untitled

Last Altered: Thursday, October 11, 2018 09:20:47 Pacific Daylight Time

Printed: Thursday, October 11, 2018 09:21:01 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1010.mdb 11 Oct 2018 09:11:43

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_10-05-18_L14.cdb 09 Oct 2018 10:37:25

Compound name: PFBS

	# Name	ID	Acq.Date	Acq.Time
1	1 181010G1_1	IPA	10-Oct-18	09:35:02
2	2 181010G1_2	ST181010G1-1 PFC CS-2 537 18J0403	10-Oct-18	09:47:07
3	3 181010G1_3	B8J0059-BS1 LFB 0.25	10-Oct-18	10:06:40
4	4 181010G1_4	B8J0059-BSD1 LFB 0.25	10-Oct-18	10:23:03
5	5 181010G1_5	B8J0059-BLK1 LRB 0.25	10-Oct-18	10:35:04
6	6 181010G1_6	1803042-01RE1 GWNT1809061100GG...	10-Oct-18	10:48:02
7	7 181010G1_7	1803182-01RE1 CAL-DW01-20180926 ...	10-Oct-18	11:00:59
8	8 181010G1_8	1803182-02RE1 CAL-DW01-FRB-2018...	10-Oct-18	11:13:57
9	9 181010G1_9	1803182-03RE1 CAL-DW02-20180926 ...	10-Oct-18	11:26:54
10	10 181010G1_10	1803182-04RE1 CAL-DW02-FRB-2018...	10-Oct-18	11:39:52
11	11 181010G1_11	1803182-05RE1 CAL-DW03-20180926 ...	10-Oct-18	11:52:58
12	12 181010G1_12	1803182-06RE1 CAL-DW03-FRB-2018...	10-Oct-18	12:05:58
13	13 181010G1_13	1803182-07RE1 CAL-DW04-20180927 ...	10-Oct-18	12:18:56
14	14 181010G1_14	1803182-08RE1 CAL-DW04-FRB-2018...	10-Oct-18	12:31:57
15	15 181010G1_15	1803182-09RE1 CAL-DW07-20180927 ...	10-Oct-18	12:45:08
16	16 181010G1_16	IPA	10-Oct-18	12:57:57
17	17 181010G1_17	ST181010G1-2 PFC CS0 537 18J0405	10-Oct-18	13:10:55
18	18 181010G1_18	1803182-10RE1 CAL-DW07-FRB-2018...	10-Oct-18	13:23:54
19	19 181010G1_19	1803182-11RE1 CAL-DW-DUP01-2018...	10-Oct-18	13:36:47
20	20 181010G1_20	1803182-12RE1 CAL-DW10-20180927 ...	10-Oct-18	13:49:45
21	21 181010G1_21	1803182-13RE1 CAL-DW10-FRB-2018...	10-Oct-18	14:05:30
22	22 181010G1_22	1803182-14RE1 CAL-DW12-20180927 ...	10-Oct-18	14:17:30
23	23 181010G1_23	1803182-15RE1 CAL-DW12-FRB-2018...	10-Oct-18	14:30:27
24	24 181010G1_24	1803182-16RE1 CAL-DW06-20180926 ...	10-Oct-18	14:43:24
25	25 181010G1_25	1803182-17RE1 CAL-DW06-FRB-2018...	10-Oct-18	14:56:22
26	26 181010G1_26	1803188-03@10X DW-4 0.25433	10-Oct-18	15:09:33
27	27 181010G1_27	B8J0037-BSD1 LFB 0.25	10-Oct-18	15:22:18
28	28 181010G1_28	1802863-02RE1 GWNT1808290930KE...	10-Oct-18	15:35:23
29	29 181010G1_29	IPA	10-Oct-18	15:48:20
30	30 181010G1_30	ST181010G1-3 PFC CS2 537 18J0407	10-Oct-18	16:01:17
31	31 181010G1_31	1803182-07RE1 CAL-DW04-20180927 ...	10-Oct-18	16:19:18
32	32 181010G1_32	IPA	10-Oct-18	16:34:25

Dataset: Untitled

Last Altered: Thursday, October 11, 2018 09:20:47 Pacific Daylight Time

Printed: Thursday, October 11, 2018 09:21:01 Pacific Daylight Time

Compound name: PFBS

	# Name	ID	Acq.Date	Acq.Time
33	33 181010G1_33	ST181010G1-4 PFC CS-2 537 18J0403	10-Oct-18	16:46:28

Dataset: X:\G1.PRO\Results\2018\181010G1\181010G1-33.qld

CCV

Last Altered: Thursday, October 11, 2018 09:19:19 Pacific Daylight Time

Printed: Thursday, October 11, 2018 09:19:45 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1010.mdb 11 Oct 2018 09:11:43

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_10-05-18_L14.cdb 09 Oct 2018 10:37:25

Name: 181010G1_33, Date: 10-Oct-2018, Time: 16:46:28, ID: ST181010G1-4 PFC CS-2 537 18J0403, Description: PFC CS-2 537 18J0403

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	298.8 > 80.2	2.41e2	1.12e4	1.00		2.90	2.91	0.619	0.831	93.6
2	2 PFHxA	312.8 > 269.0	5.57e2	5.86e3	1.00		3.28	3.28	0.951	0.921	92.1
3	3 PFHpA	362.8 > 319.0	4.93e2	5.86e3	1.00		3.80	3.81	0.842	0.782	78.2
4	4 PFHxS	398.7 > 80.2	2.29e2	1.12e4	1.00		3.92	3.93	0.588	0.821	90.0
5	5 PFOA	412.7 > 368.9	4.32e2	5.86e3	1.00		4.23	4.23	0.738	0.715	71.5
6	6 PFNA	462.8 > 419.0	5.28e2	5.86e3	1.00		4.57	4.57	0.902	0.930	93.0
7	7 PFOS	498.7 > 80.2	7.75e1	1.12e4	1.00		4.62	4.63	0.199	0.529	57.0
8	8 PFDA	512.8 > 468.9	6.70e2	5.86e3	1.00		4.83	4.84	1.14	0.887	88.7
9	9 N-MeFOSAA	569.8 > 419.0	1.87e2	1.31e4	1.00		4.97	4.98	0.572	0.816	81.6
10	10 N-EtFOSAA	583.8 > 419.0	1.69e2	1.31e4	1.00		5.10	5.10	0.516	0.797	79.7
11	11 PFUnA	562.7 > 518.9	7.50e2	5.86e3	1.00		5.11	5.11	1.28	0.901	90.1
12	12 PFDoA	612.8 > 569.0	5.71e2	5.86e3	1.00		5.37	5.38	0.974	0.805	80.5
13	13 PFTrDA	662.8 > 619.0	6.41e2	5.86e3	1.00		5.58	5.58	1.10	0.888	88.8
14	14 PFTeDA	712.8 > 669.0	6.98e2	5.86e3	1.00		5.75	5.75	1.19	0.912	91.2
15	15 13C2-PFHxA	314.9 > 270.0	5.81e3	5.86e3	1.00	1.102	3.29	3.29	9.92	9.00	90.0
16	16 13C2-PFDA	514.8 > 470.0	6.28e3	5.86e3	1.00	1.199	4.86	4.84	10.7	8.95	89.5
17	17 d5-N-EtFOSAA	588.8 > 419.0	1.19e4	1.31e4	1.00	0.820	5.10	5.10	36.5	44.5	111.2
18	18 13C2-PFOA	414.8 > 370.0	5.86e3	5.86e3	1.00	1.000	4.23	4.22	10.0	10.0	100.0
19	19 13C4-PFOS	502.8 > 80.2	1.12e4	1.12e4	1.00	1.000	4.63	4.62	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	572.7 > 419.0	1.31e4	1.31e4	1.00	1.000	4.97	4.97	40.0	40.0	100.0

JMM 10/11/18

50-150%

KBF 10/11/18

Dataset: Untitled

Last Altered: Thursday, October 11, 2018 09:20:47 Pacific Daylight Time
Printed: Thursday, October 11, 2018 09:21:01 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1010.mdb 11 Oct 2018 09:11:43
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_10-05-18_L14.cdb 09 Oct 2018 10:37:25

Compound name: PFBS

	# Name	ID	Acq.Date	Acq.Time
1	1 181010G1_1	IPA	10-Oct-18	09:35:02
2	2 181010G1_2	ST181010G1-1 PFC CS-2 537 18J0403	10-Oct-18	09:47:07
3	3 181010G1_3	B8J0059-BS1 LFB 0.25	10-Oct-18	10:06:40
4	4 181010G1_4	B8J0059-BSD1 LFB 0.25	10-Oct-18	10:23:03
5	5 181010G1_5	B8J0059-BLK1 LRB 0.25	10-Oct-18	10:35:04
6	6 181010G1_6	1803042-01RE1 GWNT1809061100GG...	10-Oct-18	10:48:02
7	7 181010G1_7	1803182-01RE1 CAL-DW01-20180926 ...	10-Oct-18	11:00:59
8	8 181010G1_8	1803182-02RE1 CAL-DW01-FRB-2018...	10-Oct-18	11:13:57
9	9 181010G1_9	1803182-03RE1 CAL-DW02-20180926 ...	10-Oct-18	11:26:54
10	10 181010G1_10	1803182-04RE1 CAL-DW02-FRB-2018...	10-Oct-18	11:39:52
11	11 181010G1_11	1803182-05RE1 CAL-DW03-20180926 ...	10-Oct-18	11:52:58
12	12 181010G1_12	1803182-06RE1 CAL-DW03-FRB-2018...	10-Oct-18	12:05:58
13	13 181010G1_13	1803182-07RE1 CAL-DW04-20180927 ...	10-Oct-18	12:18:56
14	14 181010G1_14	1803182-08RE1 CAL-DW04-FRB-2018...	10-Oct-18	12:31:57
15	15 181010G1_15	1803182-09RE1 CAL-DW07-20180927 ...	10-Oct-18	12:45:08
16	16 181010G1_16	IPA	10-Oct-18	12:57:57
17	17 181010G1_17	ST181010G1-2 PFC CS0 537 18J0405	10-Oct-18	13:10:55
18	18 181010G1_18	1803182-10RE1 CAL-DW07-FRB-2018...	10-Oct-18	13:23:54
19	19 181010G1_19	1803182-11RE1 CAL-DW-DUP01-2018...	10-Oct-18	13:36:47
20	20 181010G1_20	1803182-12RE1 CAL-DW10-20180927 ...	10-Oct-18	13:49:45
21	21 181010G1_21	1803182-13RE1 CAL-DW10-FRB-2018...	10-Oct-18	14:05:30
22	22 181010G1_22	1803182-14RE1 CAL-DW12-20180927 ...	10-Oct-18	14:17:30
23	23 181010G1_23	1803182-15RE1 CAL-DW12-FRB-2018...	10-Oct-18	14:30:27
24	24 181010G1_24	1803182-16RE1 CAL-DW06-20180926 ...	10-Oct-18	14:43:24
25	25 181010G1_25	1803182-17RE1 CAL-DW06-FRB-2018...	10-Oct-18	14:56:22
26	26 181010G1_26	1803188-03@10X DW-4 0.25433	10-Oct-18	15:09:33
27	27 181010G1_27	B8J0037-BSD1 LFB 0.25	10-Oct-18	15:22:18
28	28 181010G1_28	1802863-02RE1 GWNT1808290930KE...	10-Oct-18	15:35:23
29	29 181010G1_29	IPA	10-Oct-18	15:48:20
30	30 181010G1_30	ST181010G1-3 PFC CS2 537 18J0407	10-Oct-18	16:01:17
31	31 181010G1_31	1803182-07RE1 CAL-DW04-20180927 ...	10-Oct-18	16:19:18
32	32 181010G1_32	IPA	10-Oct-18	16:34:25

Dataset: Untitled

Last Altered: Thursday, October 11, 2018 09:20:47 Pacific Daylight Time
Printed: Thursday, October 11, 2018 09:21:01 Pacific Daylight Time

Compound name: PFBS

	# Name	ID	Acq.Date	Acq.Time
33	33 181010G1_33	ST181010G1-4 PFC CS-2 537 18J0403	10-Oct-18	16:46:28

INITIAL CALIBRATION (ICAL)
INCLUDING ASSOCIATED
INITIAL CALIBRATION VERIFICATION (ICV)

Dataset: X:\G1.PRO\Results\2018\181005G3\181005G3-CRV.qld

Last Altered: Tuesday, October 09, 2018 10:37:25 Pacific Daylight Time
Printed: Tuesday, October 09, 2018 10:42:07 Pacific Daylight Time

low pt
PFOS = 0.464
EtfosAA = 1.0

high pt
PFHxA = 75 MeFosAA = 25
PFHpA EtfosAA ↓
PFOA
PFNA
PFDA
PFUnA
PFDaA
PFTDA
PFTeDA
✓ 10/9/18

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1005.mdb 06 Oct 2018 09:05:09
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_10-05-18_L14.cdb 09 Oct 2018 10:37:25

Compound name: PFBS

Coefficient of Determination: $R^2 = 0.999081$

Calibration curve: $0.744632 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x-excluded
1	1	181005G3_2	Standard	0.222	2.93	62.733	14224.786	0.127	0.2	-23.4	NO	0.999	NO	bb
2	2	181005G3_3	Standard	0.444	2.93	146.427	13024.970	0.323	0.4	-2.4	NO	0.999	NO	bb
3	3	181005G3_4	Standard	0.888	2.93	303.388	14070.765	0.619	0.8	-6.4	NO	0.999	NO	bb
4	4	181005G3_5	Standard	1.780	2.93	657.534	14081.617	1.340	1.8	1.1	NO	0.999	NO	bb
5	5	181005G3_6	Standard	4.440	2.93	1534.146	14864.415	2.962	4.0	-10.4	NO	0.999	NO	bb
6	6	181005G3_7	Standard	8.840	2.93	2817.001	13089.380	6.177	8.3	-6.2	NO	0.999	NO	bd
7	7	181005G3_8	Standard	22.100	2.93	7487.047	13387.591	16.051	21.6	-2.5	NO	0.999	NO	bb
8	8	181005G3_9	Standard	44.200	2.93	15305.433	12750.208	34.452	46.3	4.7	NO	0.999	NO	bd
9	9	181005G3_10	Standard	66.400	2.92	21674.318	12622.959	49.279	66.2	-0.3	NO	0.999	NO	bb
10	10	181005G3_11	Standard	88.500	2.93	28531.990	12453.261	65.755	88.3	-0.2	NO	0.999	NO	bb

Compound name: PFHxA

Coefficient of Determination: $R^2 = 0.998629$

Calibration curve: $1.03224 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x-excluded
1	1	181005G3_2	Standard	0.250	3.29	186.167	5750.953	0.324	0.3	25.4	NO	0.999	NO	bb
2	2	181005G3_3	Standard	0.500	3.29	342.566	6289.390	0.545	0.5	5.5	NO	0.999	NO	bb
3	3	181005G3_4	Standard	1.000	3.28	631.665	5792.523	1.090	1.1	5.6	NO	0.999	NO	bb
4	4	181005G3_5	Standard	2.000	3.28	1220.053	5555.693	2.196	2.1	6.4	NO	0.999	NO	bb
5	5	181005G3_6	Standard	5.000	3.28	3019.632	5865.877	5.148	5.0	-0.3	NO	0.999	NO	bd
6	6	181005G3_7	Standard	10.000	3.28	5624.349	5593.660	10.055	9.7	-2.6	NO	0.999	NO	bd
7	7	181005G3_8	Standard	25.000	3.28	13917.297	5723.753	24.315	23.6	-5.8	NO	0.999	NO	bd
8	8	181005G3_9	Standard	50.000	3.28	28629.891	5320.454	53.811	52.1	4.3	NO	0.999	NO	bb
9	9	181005G3_10	Standard	75.000	3.28	43697.902	5696.708	76.707	74.3	-0.9	NO	0.999	NO	bd
10	10	181005G3_11	Standard	100.000	3.28	54433.914	5059.471	107.588	104.2	4.2	NO	0.999	NO	bbX

✓ 10/9/18

Dataset: X:\G1.PRO\Results\2018\181005G3\181005G3-CRV.qld

Last Altered: Tuesday, October 09, 2018 10:37:25 Pacific Daylight Time
Printed: Tuesday, October 09, 2018 10:42:07 Pacific Daylight Time

Compound name: PFHpA

Coefficient of Determination: $R^2 = 0.998832$

Calibration curve: $1.07676 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 181005G3_2	Standard	0.250	3.81	130.943	5750.953	0.228	0.2	-15.4	NO	0.999	NO	bb
2	2 181005G3_3	Standard	0.500	3.81	322.857	6289.390	0.513	0.5	-4.7	NO	0.999	NO	bb
3	3 181005G3_4	Standard	1.000	3.80	580.985	5792.523	1.003	0.9	-6.9	NO	0.999	NO	bb
4	4 181005G3_5	Standard	2.000	3.80	1306.926	5555.693	2.352	2.2	9.2	NO	0.999	NO	bb
5	5 181005G3_6	Standard	5.000	3.81	3218.410	5865.877	5.487	5.1	1.9	NO	0.999	NO	bb
6	6 181005G3_7	Standard	10.000	3.81	6242.474	5593.660	11.160	10.4	3.6	NO	0.999	NO	bb
7	7 181005G3_8	Standard	25.000	3.80	14793.167	5723.753	25.845	24.0	-4.0	NO	0.999	NO	bd
8	8 181005G3_9	Standard	50.000	3.81	29748.197	5320.454	55.913	51.9	3.9	NO	0.999	NO	bb
9	9 181005G3_10	Standard	75.000	3.80	45118.750	5696.708	79.201	73.6	-1.9	NO	0.999	NO	bb
10	10 181005G3_11	Standard	100.000	3.81	57904.727	5059.471	114.448	106.3	6.3	NO	0.999	NO	bbX

Compound name: PFHxS

Coefficient of Determination: $R^2 = 0.999312$

Calibration curve: $0.716646 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 181005G3_2	Standard	0.228	3.93	62.383	14224.786	0.126	0.2	-23.0	NO	0.999	NO	MM
2	2 181005G3_3	Standard	0.456	3.93	140.388	13024.970	0.309	0.4	-5.3	NO	0.999	NO	MM
3	3 181005G3_4	Standard	0.912	3.93	281.891	14070.765	0.575	0.8	-12.0	NO	0.999	NO	MM
4	4 181005G3_5	Standard	1.820	3.94	618.664	14081.617	1.261	1.8	-3.3	NO	0.999	NO	MM
5	5 181005G3_6	Standard	4.560	3.94	1624.240	14864.415	3.136	4.4	-4.0	NO	0.999	NO	MM
6	6 181005G3_7	Standard	9.120	3.93	3064.151	13089.380	6.719	9.4	2.8	NO	0.999	NO	MM
7	7 181005G3_8	Standard	22.800	3.93	7268.626	13387.591	15.582	21.7	-4.6	NO	0.999	NO	MM
8	8 181005G3_9	Standard	45.500	3.93	14813.804	12750.208	33.345	46.5	2.3	NO	0.999	NO	MM
9	9 181005G3_10	Standard	68.200	3.93	21944.377	12622.959	49.894	69.6	2.1	NO	0.999	NO	MM
10	10 181005G3_11	Standard	91.000	3.93	27918.807	12453.261	64.342	89.8	-1.3	NO	0.999	NO	MM

Dataset: X:\G1.PRO\Results\2018\181005G3\181005G3-CRV.qld

Last Altered: Tuesday, October 09, 2018 10:37:25 Pacific Daylight Time
Printed: Tuesday, October 09, 2018 10:42:07 Pacific Daylight Time

Compound name: PFOA

Coefficient of Determination: $R^2 = 0.997085$

Calibration curve: $1.03308 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 181005G3_2	Standard	0.250	4.26	100.437	5750.953	0.175	0.2	-32.4	NO	0.997	NO	MM
2	2 181005G3_3	Standard	0.500	4.24	298.241	6289.390	0.474	0.5	-8.2	NO	0.997	NO	MM
3	3 181005G3_4	Standard	1.000	4.25	472.692	5792.523	0.816	0.8	-21.0	NO	0.997	NO	MM
4	4 181005G3_5	Standard	2.000	4.25	1130.231	5555.693	2.034	2.0	-1.5	NO	0.997	NO	MM
5	5 181005G3_6	Standard	5.000	4.25	3177.579	5865.877	5.417	5.2	4.9	NO	0.997	NO	bb
6	6 181005G3_7	Standard	10.000	4.25	5597.691	5593.660	10.007	9.7	-3.1	NO	0.997	NO	bd
7	7 181005G3_8	Standard	25.000	4.25	13515.015	5723.753	23.612	22.9	-8.6	NO	0.997	NO	bd
8	8 181005G3_9	Standard	50.000	4.25	29153.088	5320.454	54.794	53.0	6.1	NO	0.997	NO	bb
9	9 181005G3_10	Standard	75.000	4.24	43866.152	5696.708	77.003	74.5	-0.6	NO	0.997	NO	bd
10	10 181005G3_11	Standard	100.000	4.25	56620.234	5059.471	111.909	108.3	8.3	NO	0.997	NO	bdX

Compound name: PFNA

Coefficient of Determination: $R^2 = 0.997889$

Calibration curve: $0.969177 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 181005G3_2	Standard	0.250	4.55	101.443	5750.953	0.176	0.2	-27.2	NO	0.998	NO	MM
2	2 181005G3_3	Standard	0.500	4.56	285.927	6289.390	0.455	0.5	-6.2	NO	0.998	NO	MM
3	3 181005G3_4	Standard	1.000	4.56	442.730	5792.523	0.764	0.8	-21.1	NO	0.998	NO	MM
4	4 181005G3_5	Standard	2.000	4.56	1159.673	5555.693	2.087	2.2	7.7	NO	0.998	NO	bb
5	5 181005G3_6	Standard	5.000	4.56	2729.900	5865.877	4.654	4.8	-4.0	NO	0.998	NO	MM
6	6 181005G3_7	Standard	10.000	4.56	5465.954	5593.660	9.772	10.1	0.8	NO	0.998	NO	MM
7	7 181005G3_8	Standard	25.000	4.56	12902.569	5723.753	22.542	23.3	-7.0	NO	0.998	NO	bb
8	8 181005G3_9	Standard	50.000	4.56	27084.033	5320.454	50.905	52.5	5.0	NO	0.998	NO	bb
9	9 181005G3_10	Standard	75.000	4.56	41126.078	5696.708	72.193	74.5	-0.7	NO	0.998	NO	bd
10	10 181005G3_11	Standard	100.000	4.56	52465.574	5059.471	103.698	107.0	7.0	NO	0.998	NO	bbX

Dataset: X:\G1.PRO\Results\2018\181005G3\181005G3-CRV.qld

Last Altered: Tuesday, October 09, 2018 10:37:25 Pacific Daylight Time

Printed: Tuesday, October 09, 2018 10:42:07 Pacific Daylight Time

Compound name: PFOS

Coefficient of Determination: $R^2 = 0.996669$

Calibration curve: $0.37602 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 181005G3_2	Standard	0.232	4.61	7.787	14224.786	0.016	0.0	-82.0	NO	0.997	NO	MMX
2	2 181005G3_3	Standard	0.464	4.62	60.454	13024.970	0.133	0.4	-23.7	NO	0.997	NO	MM
3	3 181005G3_4	Standard	0.928	4.61	125.885	14070.765	0.257	0.7	-26.4	NO	0.997	NO	MM
4	4 181005G3_5	Standard	1.860	4.61	270.434	14081.617	0.551	1.5	-21.2	NO	0.997	NO	MM
5	5 181005G3_6	Standard	4.640	4.61	777.120	14864.415	1.500	4.0	-14.0	NO	0.997	NO	MM
6	6 181005G3_7	Standard	9.240	4.61	1438.374	13089.380	3.154	8.4	-9.2	NO	0.997	NO	MM
7	7 181005G3_8	Standard	23.100	4.62	3630.333	13387.591	7.783	20.7	-10.4	NO	0.997	NO	MM
8	8 181005G3_9	Standard	46.200	4.61	7690.533	12750.208	17.311	46.0	-0.4	NO	0.997	NO	MM
9	9 181005G3_10	Standard	69.400	4.61	11607.759	12622.959	26.392	70.2	1.1	NO	0.997	NO	MM
10	10 181005G3_11	Standard	92.500	4.61	15749.727	12453.261	36.297	96.5	4.4	NO	0.997	NO	MM

Compound name: PFDA

Coefficient of Determination: $R^2 = 0.993505$

Calibration curve: $1.29047 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 181005G3_2	Standard	0.250	4.85	188.673	5750.953	0.328	0.3	1.7	NO	0.994	NO	MM
2	2 181005G3_3	Standard	0.500	4.85	284.905	6289.390	0.453	0.4	-29.8	NO	0.994	NO	MM
3	3 181005G3_4	Standard	1.000	4.85	779.928	5792.523	1.346	1.0	4.3	NO	0.994	NO	bb
4	4 181005G3_5	Standard	2.000	4.86	1606.105	5555.693	2.891	2.2	12.0	NO	0.994	NO	bb
5	5 181005G3_6	Standard	5.000	4.86	4177.451	5865.877	7.122	5.5	10.4	NO	0.994	NO	MM
6	6 181005G3_7	Standard	10.000	4.86	7281.195	5593.660	13.017	10.1	0.9	NO	0.994	NO	bd
7	7 181005G3_8	Standard	25.000	4.85	17274.590	5723.753	30.181	23.4	-6.5	NO	0.994	NO	bd
8	8 181005G3_9	Standard	50.000	4.86	37924.234	5320.454	71.280	55.2	10.5	NO	0.994	NO	MM
9	9 181005G3_10	Standard	75.000	4.84	51925.504	5696.708	91.150	70.6	-5.8	NO	0.994	NO	bd
10	10 181005G3_11	Standard	100.000	4.85	67462.273	5059.471	133.339	103.3	3.3	NO	0.994	NO	bbX

Dataset: X:\G1.PRO\Results\2018\181005G3\181005G3-CRV.qld

Last Altered: Tuesday, October 09, 2018 10:37:25 Pacific Daylight Time

Printed: Tuesday, October 09, 2018 10:42:07 Pacific Daylight Time

Compound name: N-MeFOSAA

Coefficient of Determination: $R^2 = 0.994919$

Calibration curve: $0.701045 * x$

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	181005G3_2	Standard	0.250	4.99	46.380	14384.714	0.129	0.2	-26.4	NO	0.995	NO	MM
2	2	181005G3_3	Standard	0.500	4.99	120.021	15125.046	0.317	0.5	-9.4	NO	0.995	NO	MM
3	3	181005G3_4	Standard	1.000	4.99	211.569	16107.638	0.525	0.7	-25.1	NO	0.995	NO	MM
4	4	181005G3_5	Standard	2.000	4.98	497.402	16215.109	1.227	1.8	-12.5	NO	0.995	NO	MM
5	5	181005G3_6	Standard	5.000	4.98	1344.375	13816.685	3.892	5.6	11.0	NO	0.995	NO	MM
6	6	181005G3_7	Standard	10.000	4.99	2546.825	15078.015	6.756	9.6	-3.6	NO	0.995	NO	MM
7	7	181005G3_8	Standard	25.000	4.99	6136.417	13771.519	17.824	25.4	1.7	NO	0.995	NO	MM
8	8	181005G3_9	Standard	50.000	4.98	15266.173	13206.061	46.240	66.0	31.9	NO	0.995	NO	MMX
9	9	181005G3_10	Standard	75.000	4.98	20135.230	13175.728	61.128	87.2	16.3	NO	0.995	NO	MMX
10	10	181005G3_11	Standard	100.000	4.98	26385.873	14530.470	72.636	103.6	3.6	NO	0.995	NO	MMX

Compound name: N-EtFOSAA

Coefficient of Determination: $R^2 = 0.990622$

Calibration curve: $0.647387 * x$

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	181005G3_2	Standard	0.250	5.12	37.074	14384.714	0.103	0.2	-36.3	NO	0.991	NO	MMX
2	2	181005G3_3	Standard	0.500	5.11	52.971	15125.046	0.140	0.2	-56.7	NO	0.991	NO	MMX
3	3	181005G3_4	Standard	1.000	5.12	202.425	16107.638	0.503	0.8	-22.4	NO	0.991	NO	MM
4	4	181005G3_5	Standard	2.000	5.12	444.695	16215.109	1.097	1.7	-15.3	NO	0.991	NO	MM
5	5	181005G3_6	Standard	5.000	5.12	1326.652	13816.685	3.841	5.9	18.7	NO	0.991	NO	MM
6	6	181005G3_7	Standard	10.000	5.12	2332.617	15078.015	6.188	9.6	-4.4	NO	0.991	NO	MM
7	7	181005G3_8	Standard	25.000	5.12	5580.601	13771.519	16.209	25.0	0.2	NO	0.991	NO	MM
8	8	181005G3_9	Standard	50.000	5.12	12258.305	13206.061	37.129	57.4	14.7	NO	0.991	NO	MMX
9	9	181005G3_10	Standard	75.000	5.11	19870.506	13175.728	60.325	93.2	24.2	NO	0.991	NO	MMX
10	10	181005G3_11	Standard	100.000	5.11	21989.418	14530.470	60.533	93.5	-6.5	NO	0.991	NO	MMX

Dataset: X:\G1.PRO\Results\2018\181005G3\181005G3-CRV.qld

Last Altered: Tuesday, October 09, 2018 10:37:25 Pacific Daylight Time

Printed: Tuesday, October 09, 2018 10:42:07 Pacific Daylight Time

Compound name: PFUnA

Coefficient of Determination: $R^2 = 0.997347$

Calibration curve: $1.422 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	181005G3_2	Standard	0.250	5.14	186.869	5750.953	0.325	0.2	-8.6	NO	0.997	NO	MM
2	2	181005G3_3	Standard	0.500	5.13	356.018	6289.390	0.566	0.4	-20.4	NO	0.997	NO	bb
3	3	181005G3_4	Standard	1.000	5.13	744.950	5792.523	1.286	0.9	-9.6	NO	0.997	NO	bb
4	4	181005G3_5	Standard	2.000	5.13	1636.588	5555.693	2.946	2.1	3.6	NO	0.997	NO	bb
5	5	181005G3_6	Standard	5.000	5.13	4110.102	5865.877	7.007	4.9	-1.5	NO	0.997	NO	bb
6	6	181005G3_7	Standard	10.000	5.13	7913.447	5593.660	14.147	9.9	-0.5	NO	0.997	NO	bb
7	7	181005G3_8	Standard	25.000	5.13	18624.023	5723.753	32.538	22.9	-8.5	NO	0.997	NO	bb
8	8	181005G3_9	Standard	50.000	5.13	40225.367	5320.454	75.605	53.2	6.3	NO	0.997	NO	bb
9	9	181005G3_10	Standard	75.000	5.12	60124.441	5696.708	105.542	74.2	-1.0	NO	0.997	NO	bb
10	10	181005G3_11	Standard	100.000	5.12	73444.273	5059.471	145.162	102.1	2.1	NO	0.997	NO	bbX

Compound name: PFDoA

Coefficient of Determination: $R^2 = 0.995011$

Calibration curve: $1.21116 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	181005G3_2	Standard	0.250	5.37	140.094	5750.953	0.244	0.2	-19.5	NO	0.995	NO	bb
2	2	181005G3_3	Standard	0.500	5.37	392.005	6289.390	0.623	0.5	2.9	NO	0.995	NO	bb
3	3	181005G3_4	Standard	1.000	5.36	661.895	5792.523	1.143	0.9	-5.7	NO	0.995	NO	bb
4	4	181005G3_5	Standard	2.000	5.37	1462.169	5555.693	2.632	2.2	8.6	NO	0.995	NO	bd
5	5	181005G3_6	Standard	5.000	5.36	3614.083	5865.877	6.161	5.1	1.7	NO	0.995	NO	bd
6	6	181005G3_7	Standard	10.000	5.36	7434.696	5593.660	13.291	11.0	9.7	NO	0.995	NO	bd
7	7	181005G3_8	Standard	25.000	5.36	17457.275	5723.753	30.500	25.2	0.7	NO	0.995	NO	bd
8	8	181005G3_9	Standard	50.000	5.36	34733.887	5320.454	65.284	53.9	7.8	NO	0.995	NO	bd
9	9	181005G3_10	Standard	75.000	5.37	48140.523	5696.708	84.506	69.8	-7.0	NO	0.995	NO	bb
10	10	181005G3_11	Standard	100.000	5.36	63080.652	5059.471	124.678	102.9	2.9	NO	0.995	NO	bbX

Dataset: X:\G1.PRO\Results\2018\181005G3\181005G3-CRV.qld

Last Altered: Tuesday, October 09, 2018 10:37:25 Pacific Daylight Time
Printed: Tuesday, October 09, 2018 10:42:07 Pacific Daylight Time

Compound name: PFTrDA

Coefficient of Determination: $R^2 = 0.999100$

Calibration curve: $1.23315 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 181005G3_2	Standard	0.250	5.57	219.012	5750.953	0.381	0.3	23.5	NO	0.999	NO	bb
2	2 181005G3_3	Standard	0.500	5.58	385.214	6289.390	0.612	0.5	-0.7	NO	0.999	NO	bb
3	3 181005G3_4	Standard	1.000	5.57	620.404	5792.523	1.071	0.9	-13.1	NO	0.999	NO	MM
4	4 181005G3_5	Standard	2.000	5.57	1327.018	5555.693	2.389	1.9	-3.2	NO	0.999	NO	bb
5	5 181005G3_6	Standard	5.000	5.58	3456.570	5865.877	5.893	4.8	-4.4	NO	0.999	NO	bd
6	6 181005G3_7	Standard	10.000	5.57	6829.920	5593.660	12.210	9.9	-1.0	NO	0.999	NO	bb
7	7 181005G3_8	Standard	25.000	5.57	17181.029	5723.753	30.017	24.3	-2.6	NO	0.999	NO	bb
8	8 181005G3_9	Standard	50.000	5.57	34058.375	5320.454	64.014	51.9	3.8	NO	0.999	NO	bb
9	9 181005G3_10	Standard	75.000	5.57	52128.582	5696.708	91.507	74.2	-1.1	NO	0.999	NO	bb
10	10 181005G3_11	Standard	100.000	5.57	66306.430	5059.471	131.054	106.3	6.3	NO	0.999	NO	bbX

Compound name: PFTeDA

Coefficient of Determination: $R^2 = 0.997908$

Calibration curve: $1.30639 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 181005G3_2	Standard	0.250	5.76	174.105	5750.953	0.303	0.2	-7.3	NO	0.998	NO	bb
2	2 181005G3_3	Standard	0.500	5.77	359.291	6289.390	0.571	0.4	-12.5	NO	0.998	NO	bb
3	3 181005G3_4	Standard	1.000	5.76	670.953	5792.523	1.158	0.9	-11.3	NO	0.998	NO	bd
4	4 181005G3_5	Standard	2.000	5.76	1504.940	5555.693	2.709	2.1	3.7	NO	0.998	NO	bb
5	5 181005G3_6	Standard	5.000	5.76	3883.065	5865.877	6.620	5.1	1.3	NO	0.998	NO	bd
6	6 181005G3_7	Standard	10.000	5.76	7365.802	5593.660	13.168	10.1	0.8	NO	0.998	NO	bd
7	7 181005G3_8	Standard	25.000	5.76	18058.844	5723.753	31.551	24.2	-3.4	NO	0.998	NO	bd
8	8 181005G3_9	Standard	50.000	5.76	36970.469	5320.454	69.487	53.2	6.4	NO	0.998	NO	bb
9	9 181005G3_10	Standard	75.000	5.76	54054.086	5696.708	94.887	72.6	-3.2	NO	0.998	NO	bb
10	10 181005G3_11	Standard	100.000	5.77	66708.547	5059.471	131.849	100.9	0.9	NO	0.998	NO	bbX

Dataset: X:\G1.PRO\Results\2018\181005G3\181005G3-CRV.qld

Last Altered: Tuesday, October 09, 2018 10:37:25 Pacific Daylight Time

Printed: Tuesday, October 09, 2018 10:42:07 Pacific Daylight Time

Compound name: 13C2-PFHxA

Response Factor: 1.10164

RRF SD: 0.0539755, Relative SD: 4.89954

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 181005G3_2	Standard	10.000	3.28	6204.534	5750.953	10.789	9.8	-2.1	NO		NO	bd
2	2 181005G3_3	Standard	10.000	3.28	6379.967	6289.390	10.144	9.2	-7.9	NO		NO	bd
3	3 181005G3_4	Standard	10.000	3.28	6101.985	5792.523	10.534	9.6	-4.4	NO		NO	bd
4	4 181005G3_5	Standard	10.000	3.28	6344.475	5555.693	11.420	10.4	3.7	NO		NO	bb
5	5 181005G3_6	Standard	10.000	3.28	6547.506	5865.877	11.162	10.1	1.3	NO		NO	bd
6	6 181005G3_7	Standard	10.000	3.28	6500.032	5593.660	11.620	10.5	5.5	NO		NO	bb
7	7 181005G3_8	Standard	10.000	3.28	6459.735	5723.753	11.286	10.2	2.4	NO		NO	bb
8	8 181005G3_9	Standard	10.000	3.28	6207.448	5320.454	11.667	10.6	5.9	NO		NO	bb
9	9 181005G3_10	Standard	10.000	3.28	5996.309	5696.708	10.526	9.6	-4.5	NO		NO	bd
10	10 181005G3_11	Standard	10.000	3.28	5922.341	5059.471	11.705	10.6	6.3	NO		NO	bbX

Compound name: 13C2-PFDA

Response Factor: 1.19855

RRF SD: 0.0638028, Relative SD: 5.32332

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 181005G3_2	Standard	10.000	4.86	6716.737	5750.953	11.679	9.7	-2.6	NO		NO	bb
2	2 181005G3_3	Standard	10.000	4.86	7031.245	6289.390	11.180	9.3	-6.7	NO		NO	bb
3	3 181005G3_4	Standard	10.000	4.85	6702.071	5792.523	11.570	9.7	-3.5	NO		NO	bb
4	4 181005G3_5	Standard	10.000	4.85	6320.592	5555.693	11.377	9.5	-5.1	NO		NO	bb
5	5 181005G3_6	Standard	10.000	4.85	7592.240	5865.877	12.943	10.8	8.0	NO		NO	bb
6	6 181005G3_7	Standard	10.000	4.86	6826.515	5593.660	12.204	10.2	1.8	NO		NO	bb
7	7 181005G3_8	Standard	10.000	4.85	7300.034	5723.753	12.754	10.6	6.4	NO		NO	bd
8	8 181005G3_9	Standard	10.000	4.85	6664.819	5320.454	12.527	10.5	4.5	NO		NO	bd
9	9 181005G3_10	Standard	10.000	4.84	6628.669	5696.708	11.636	9.7	-2.9	NO		NO	bd
10	10 181005G3_11	Standard	10.000	4.85	6568.925	5059.471	12.983	10.8	8.3	NO		NO	bdX

Dataset: X:\G1.PRO\Results\2018\181005G3\181005G3-CRV.qld

Last Altered: Tuesday, October 09, 2018 10:37:25 Pacific Daylight Time

Printed: Tuesday, October 09, 2018 10:42:07 Pacific Daylight Time

Compound name: d5-N-EtFOSAA

Response Factor: 0.819843

RRF SD: 0.0602762, Relative SD: 7.35217

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	181005G3_2	Standard	40.000	5.12	12147.907	14384.714	33.780	41.2	3.0	NO		NO	bd
2	2	181005G3_3	Standard	40.000	5.12	11551.193	15125.046	30.549	37.3	-6.8	NO		NO	bd
3	3	181005G3_4	Standard	40.000	5.12	12529.479	16107.638	31.114	38.0	-5.1	NO		NO	bd
4	4	181005G3_5	Standard	40.000	5.11	12020.289	16215.109	29.652	36.2	-9.6	NO		NO	bd
5	5	181005G3_6	Standard	40.000	5.12	12454.481	13816.685	36.056	44.0	9.9	NO		NO	bd
6	6	181005G3_7	Standard	40.000	5.12	13225.704	15078.015	35.086	42.8	7.0	NO		NO	bb
7	7	181005G3_8	Standard	40.000	5.12	11471.155	13771.519	33.318	40.6	1.6	NO		NO	bb
8	8	181005G3_9	Standard	40.000	5.11	11087.588	13206.061	33.583	41.0	2.4	NO		NO	bbX
9	9	181005G3_10	Standard	40.000	5.11	10315.094	13175.728	31.315	38.2	-4.5	NO		NO	bcX
10	10	181005G3_11	Standard	40.000	5.11	10672.975	14530.470	29.381	35.8	-10.4	NO		NO	bbX

Compound name: 13C2-PFOA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	181005G3_2	Standard	10.000	4.25	5750.953	5750.953	10.000	10.0	0.0	NO		NO	bb
2	2	181005G3_3	Standard	10.000	4.25	6289.390	6289.390	10.000	10.0	0.0	NO		NO	MM
3	3	181005G3_4	Standard	10.000	4.25	5792.523	5792.523	10.000	10.0	0.0	NO		NO	bd
4	4	181005G3_5	Standard	10.000	4.25	5555.693	5555.693	10.000	10.0	0.0	NO		NO	MM
5	5	181005G3_6	Standard	10.000	4.25	5865.877	5865.877	10.000	10.0	0.0	NO		NO	bb
6	6	181005G3_7	Standard	10.000	4.25	5593.660	5593.660	10.000	10.0	0.0	NO		NO	MM
7	7	181005G3_8	Standard	10.000	4.25	5723.753	5723.753	10.000	10.0	0.0	NO		NO	MM
8	8	181005G3_9	Standard	10.000	4.25	5320.454	5320.454	10.000	10.0	0.0	NO		NO	bd
9	9	181005G3_10	Standard	10.000	4.25	5696.708	5696.708	10.000	10.0	0.0	NO		NO	bd
10	10	181005G3_11	Standard	10.000	4.24	5059.471	5059.471	10.000	10.0	0.0	NO		NO	bdX

Dataset: X:\G1.PRO\Results\2018\181005G3\181005G3-CRV.qld

Last Altered: Tuesday, October 09, 2018 10:37:25 Pacific Daylight Time

Printed: Tuesday, October 09, 2018 10:42:07 Pacific Daylight Time

Compound name: 13C4-PFOS

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 181005G3_2	Standard	28.700	4.62	14224.786	14224.786	28.700	28.7	0.0	NO		NO	MM
2	2 181005G3_3	Standard	28.700	4.62	13024.970	13024.970	28.700	28.7	0.0	NO		NO	MM
3	3 181005G3_4	Standard	28.700	4.61	14070.765	14070.765	28.700	28.7	0.0	NO		NO	bd
4	4 181005G3_5	Standard	28.700	4.61	14081.617	14081.617	28.700	28.7	0.0	NO		NO	bd
5	5 181005G3_6	Standard	28.700	4.62	14864.415	14864.415	28.700	28.7	0.0	NO		NO	MM
6	6 181005G3_7	Standard	28.700	4.62	13089.380	13089.380	28.700	28.7	0.0	NO		NO	bd
7	7 181005G3_8	Standard	28.700	4.62	13387.591	13387.591	28.700	28.7	0.0	NO		NO	bd
8	8 181005G3_9	Standard	28.700	4.61	12750.208	12750.208	28.700	28.7	0.0	NO		NO	MM
9	9 181005G3_10	Standard	28.700	4.61	12622.959	12622.959	28.700	28.7	0.0	NO		NO	bd
10	10 181005G3_11	Standard	28.700	4.61	12453.261	12453.261	28.700	28.7	0.0	NO		NO	bd

Compound name: d3-N-MeFOSAA

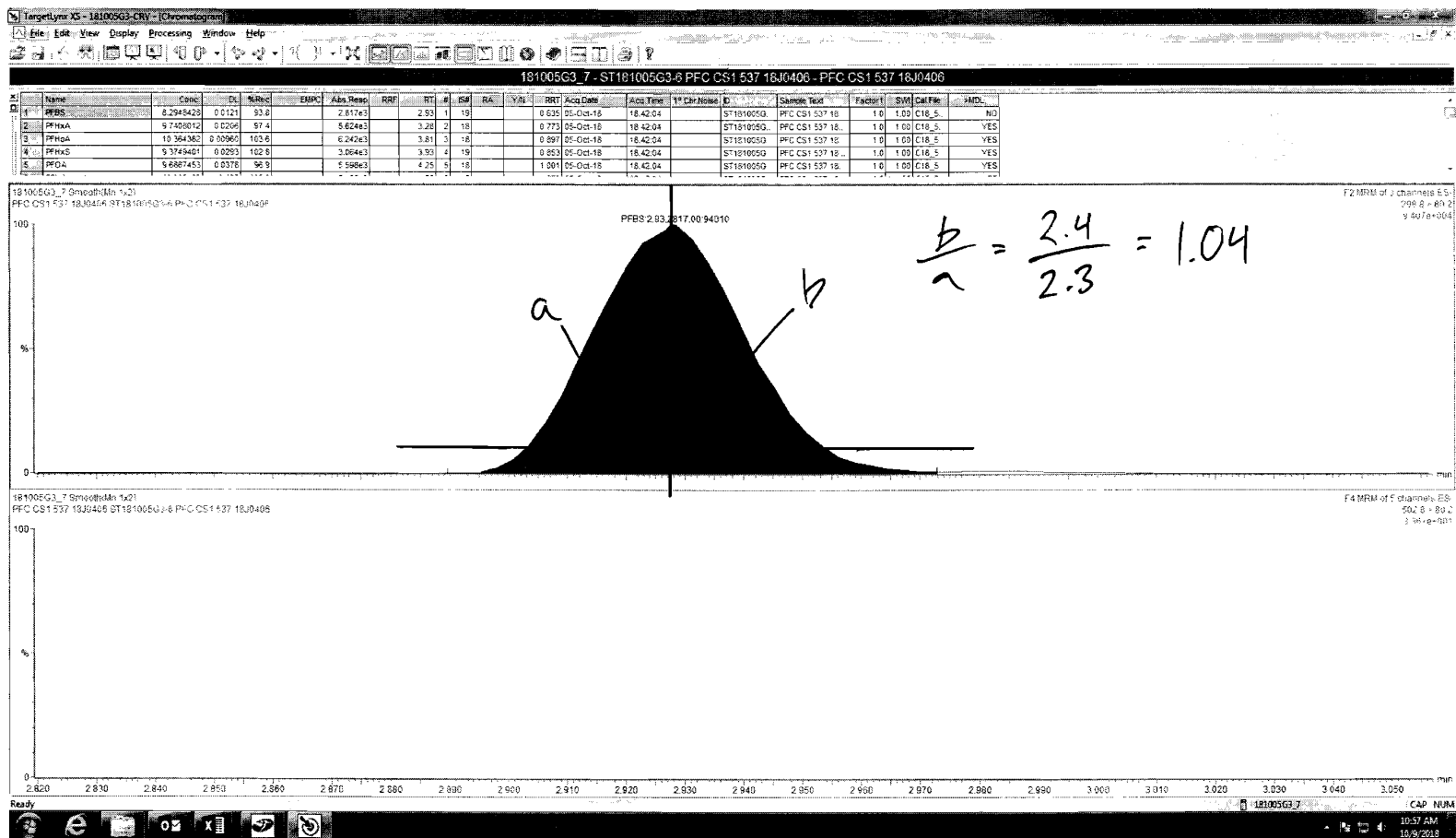
Response Factor: 1

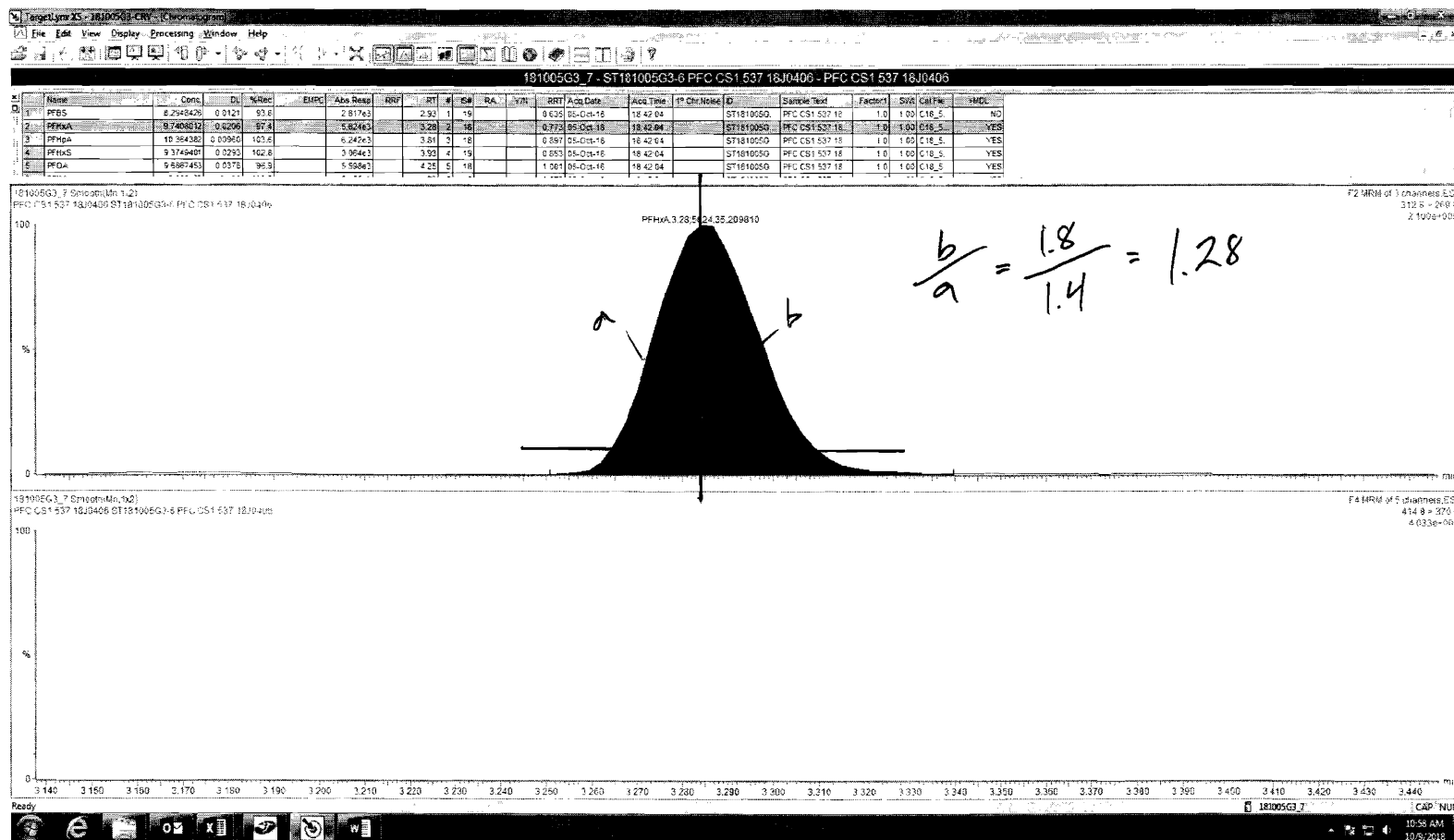
RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 181005G3_2	Standard	40.000	4.98	14384.714	14384.714	40.000	40.0	0.0	NO		NO	bd
2	2 181005G3_3	Standard	40.000	4.98	15125.046	15125.046	40.000	40.0	0.0	NO		NO	bd
3	3 181005G3_4	Standard	40.000	4.98	16107.638	16107.638	40.000	40.0	0.0	NO		NO	bd
4	4 181005G3_5	Standard	40.000	4.98	16215.109	16215.109	40.000	40.0	0.0	NO		NO	bd
5	5 181005G3_6	Standard	40.000	4.98	13816.685	13816.685	40.000	40.0	0.0	NO		NO	bd
6	6 181005G3_7	Standard	40.000	4.98	15078.015	15078.015	40.000	40.0	0.0	NO		NO	bd
7	7 181005G3_8	Standard	40.000	4.98	13771.519	13771.519	40.000	40.0	0.0	NO		NO	MM
8	8 181005G3_9	Standard	40.000	4.98	13206.061	13206.061	40.000	40.0	0.0	NO		NO	bdX
9	9 181005G3_10	Standard	40.000	4.98	13175.728	13175.728	40.000	40.0	0.0	NO		NO	MMX
10	10 181005G3_11	Standard	40.000	4.97	14530.470	14530.470	40.000	40.0	0.0	NO		NO	bdX





Dataset: X:\G1.PRO\Results\2018\181005G3\181005G3-ICV.qld

Last Altered: Tuesday, October 09, 2018 10:46:00 Pacific Daylight Time

Printed: Tuesday, October 09, 2018 10:46:17 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1005.mdb 06 Oct 2018 09:05:09

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_10-05-18_L14.cdb 09 Oct 2018 10:37:25

Name: 181005G3_13, Date: 05-Oct-2018, Time: 19:59:53, ID: ST181005G3-1 PFC ICV 537 18J0411, Description: PFC ICV 537 18J0411

	# Name	Trace	Area	S Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	298.8 > 80.2	3.74e3	1.40e4	1.00		2.90	2.93	7.66	10.3	102.9
2	2 PFHxA	312.8 > 269.0	5.96e3	5.74e3	1.00		3.28	3.28	10.4	10.0	100.5
3	3 PFHpA	362.8 > 319.0	6.59e3	5.74e3	1.00		3.81	3.81	11.5	10.7	106.6
4	4 PFHxS	398.7 > 80.2	3.39e3	1.40e4	1.00		3.91	3.94	6.94	9.68	96.8
5	5 PFOA	412.7 > 368.9	5.65e3	5.74e3	1.00		4.24	4.24	9.84	9.52	95.2
6	6 PFNA	462.8 > 419.0	5.86e3	5.74e3	1.00		4.58	4.56	10.2	10.5	105.2
7	7 PFOS	498.7 > 80.2	1.62e3	1.40e4	1.00		4.61	4.61	3.31	8.80	88.0
8	8 PFDA	512.8 > 468.9	8.12e3	5.74e3	1.00		4.86	4.85	14.1	11.0	109.6
9	9 N-MeFOSAA	569.8 > 419.0	2.50e3	1.62e4	1.00		4.98	4.98	6.18	8.82	88.2
10	10 N-EtFOSAA	583.8 > 419.0	2.06e3	1.62e4	1.00		5.11	5.11	5.09	7.87	78.7
11	11 PFUnA	562.7 > 518.9	7.78e3	5.74e3	1.00		5.12	5.13	13.5	9.52	95.2
12	12 PFDoA	612.8 > 569.0	6.57e3	5.74e3	1.00		5.37	5.37	11.4	9.44	94.4
13	13 PFTrDA	662.8 > 619.0	6.86e3	5.74e3	1.00		5.59	5.57	11.9	9.68	96.8
14	14 PFTeDA	712.8 > 669.0	7.80e3	5.74e3	1.00		5.77	5.76	13.6	10.4	104.0
15	15 13C2-PFHxA	314.9 > 270.0	6.30e3	5.74e3	1.00	1.102	3.31	3.28	11.0	9.95	99.5
16	16 13C2-PFDA	514.8 > 470.0	7.02e3	5.74e3	1.00	1.199	4.89	4.85	12.2	10.2	102.0
17	17 d5-N-EtFOSAA	588.8 > 419.0	1.27e4	1.62e4	1.00	0.820	5.11	5.11	31.3	38.1	95.3
18	18 13C2-PFOA	414.8 > 370.0	5.74e3	5.74e3	1.00	1.000	4.26	4.25	10.0	10.0	100.0
19	19 13C4-PFOS	502.8 > 80.2	1.40e4	1.40e4	1.00	1.000	4.65	4.61	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	572.7 > 419.0	1.62e4	1.62e4	1.00	1.000	4.99	4.98	40.0	40.0	100.0

KBF 10/9/18
J CatH
10/9/18

CAL-DW03-20180926

SAMPLE CALCULATION

Compound

Perfluorohexanoic acid (PFHxA)

Sample volume (L)

0.257

Internal standard concentration

10

Concentration using quadratic/calibration curve

$$729 * (10 / 5040)$$

1.446429

Curve

Calibration curve $(y)=1.03224 \cdot x$
 $1.446429=1.03224 \cdot x$

x= 1.401253

PFDA result Conc = x/wt
result reported

5.452345 ng/L
5.46 ng/L

LABELED STANDARD (SURROGATE) CALCULATION

Compound

13C2-PFHxA

Sample volume (L)

0.257

Internal standard concentration

10

Concentration using quadratic/calibration curve

$$\text{Area} \times (\text{IS concentration} / \text{IS area}) / \text{RRF}$$
$$5150 \times (10 / 5040) / 1.102$$

9.272463

PFDA result Conc = x/wt
result reported

36.07962 ng/L
36.1 ng/L

True Value

39 ng/L

% recovery

92.51185

LFBD %R

B8J0059-BS1

PFHxA

Spike amount

LCS concentration

91.00

40

36.4

MM 10/11/2018

Dataset: X:\G1.PRO\Results\2018\181010G1\181010G1-11.qld

Last Altered: Thursday, October 11, 2018 10:29:03 Pacific Daylight Time

Printed: Thursday, October 11, 2018 10:29:50 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1010.mdb 11 Oct 2018 09:11:43

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_10-05-18_L14.cdb 09 Oct 2018 10:37:25

Name: 181010G1_11, Date: 10-Oct-2018, Time: 11:52:58, ID: 1803182-05RE1 CAL-DW03-20180926 0.25658, Description: CAL-DW03-20180926

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	298.8 > 80.2	2.28e1	9.25e3	0.257		2.91	2.92	0.0706	0.370	
2	2 PFHxA	312.8 > 269.0	7.29e2	5.04e3	0.257		3.29	3.28	1.45	5.46	
3	3 PFHpA	362.8 > 319.0	2.61e2	5.04e3	0.257		3.80	3.81	0.518	1.87	
4	4 PFHxS	398.7 > 80.2	1.52e1	9.25e3	0.257		3.93	3.93	0.0472	0.257	
5	5 PFOA	412.7 > 368.9	6.80e2	5.04e3	0.257		4.23	4.23	1.35	5.09	
6	6 PFNA	462.8 > 419.0	3.31e0	5.04e3	0.257		4.57	4.57	0.00657	0.0264	
7	7 PFOS	498.7 > 80.2	1.92e0	9.25e3	0.257		4.63	4.63	0.00595	0.0617	
8	8 PFDA	512.8 > 468.9	3.31e1	5.04e3	0.257		4.84	4.85	0.0658	0.199	
9	9 N-MeFOSAA	569.8 > 419.0		1.11e4	0.257		4.97				
10	10 N-EtFOSAA	583.8 > 419.0		1.11e4	0.257		5.10				
11	11 PFUnA	562.7 > 518.9		5.04e3	0.257		5.12				
12	12 PFDoA	612.8 > 569.0	1.87e0	5.04e3	0.257		5.37	5.37	0.00370	0.0119	
13	13 PFTrDA	662.8 > 619.0		5.04e3	0.257		5.59				
14	14 PFTeDA	712.8 > 669.0		5.04e3	0.257		5.76				
15	15 13C2-PFHxA	314.9 > 270.0	5.15e3	5.04e3	0.257	1.102	3.29	3.28	10.2	36.1	92.7
16	16 13C2-PFDA	514.8 > 470.0	5.68e3	5.04e3	0.257	1.199	4.87	4.84	11.3	36.7	94.1
17	17 d5-N-EtFOSAA	588.8 > 419.0	1.05e4	1.11e4	0.257	0.820	5.10	5.10	37.8	180	115.3
18	18 13C2-PFOA	414.8 > 370.0	5.04e3	5.04e3	0.257	1.000	4.23	4.23	10.0	39.0	100.0
19	19 13C4-PFOS	502.8 > 80.2	9.25e3	9.25e3	0.257	1.000	4.63	4.63	28.7	112	100.0
20	20 d3-N-MeFOSAA	572.7 > 419.0	1.11e4	1.11e4	0.257	1.000	4.97	4.97	40.0	156	100.0

KBF 10/11/2018

Work Order 1803182

Page 78 of 256



Sample Log in Checklist

PAGE # 1 of 1
 WO# 1803182
 SDG# WB05
 TAT 7

Section 1: Container Receipt			
Delivered By: ☒ FedEx ☐ UPS ☐ On Trac ☐ GSO ☐ DHL ☐ Hand Delivered ☐ Other:			
Number of Containers	Arrival Date	Arrival time	Cooler Received LR-SLC Initiated By/Date
<u>1</u>	<u>9/29/18</u>	<u>0940</u>	<u>MBB</u>

Section 2: Sample Receipt Condition and Initial Storage					
Container Condition	Chain of Custody	Preservation Type	Temperature	Storage Location	Initials/Date
☒ Shipping container intact ☒ Shipping seals intact ☒ Custody Seals present ☒ Custody seals intact	☒ COC present ☒ Multiple COC's: <u>2PS</u> ☒ "Relinquished By" Section complete	☒ Ice ☐ Blue Ice ☐ Dry Ice ☐ Other	Thermometer ID: <u>IR-4</u> ☐ Probe used Temp (uncorrected): <u>0.4</u> °C Temp (corrected): <u>0.3</u> °C	☒ WR2 ☐ WF2 ☐ NA	<u>MBB</u> <u>9/29/18</u>

Section 3: Sample Log In	
Airbill/Trk #	<u>8124 0808 9810</u>
Shipping container ☒ Vista ☐ Client ☒ Retain ☐ Return ☐ Dispose	By/date
Log In Time: <u>1222</u>	<u>MBB 9/29/18</u>
COC clearly identifies:	☒ Acceptable ☐ Not acceptable – anomaly form required
- Sample name - Sample matrix - Test method - Sample collection date or time - Collector's name - Preservation type	<u>MBB 9/29/18</u>
All samples present and accounted for on COC	<u>* Not on Chain of Custody</u> <u>MBB 9/29/18</u>
Sample IDs are legible	<u>MBB 9/29/18</u>
Samples conform to the description on the COC	<u>MBB 9/29/18</u>
Samples are intact and suitable for testing	<u>MBB 9/29/18</u>
Preservation documented as required: ☐ NA ☐ Na ₂ S ₂ O ₃ ☒ Trizma ☐ Other	<u>MBB 9/29/18</u>
Samples stored ☒ WR2 Shelf: <u>E3/B5</u> ☐ WF2 Shelf: <u> </u> ☐ R1 Shelf: <u> </u>	<u>MBB 9/29/18</u>
Comments: <u>* recd samples: CAL-DW06-FRB-20180926 4/B 09/26/18 1605</u> <u>CAL-DW06-20180926 ↓ ↓ ↓</u> <u>** TRIZMA LABELS ON SAMPLE CONTAINERS, NOTHING NOTED ON COC.</u>	

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

Method: 537 PFAS DW Unmodified MI Sp Sig Digs

B8J0059

Chemist: FR

Prep Date: 10-8-18

Prep Time: 10:05

Prepared using: LCMS - SPE Extraction-LCMS

Balance ID: <u>H215-10</u> <u>02-10/8/18</u>		Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	B8J0059-BLK1	<u>NA</u>	<u>NA</u>	<u>(0.250)</u> ✓	<u>FR</u> <u>10-8-18</u>	<u>QC</u> <u>10/8/18</u>	<u>10/9/18</u>
☐	B8J0059-BS1	<u>NA</u>	<u>NA</u>	<u>(0.250)</u> ✓	<u>T</u>	<u>T</u>	<u>T</u>
☐	B8J0059-BS1	<u>NA</u>	<u>NA</u>	<u>(0.250)</u> ✓	<u>T</u>	<u>T</u>	<u>T</u>
☐	1803042-01-01AE1	<u>279.54</u> <u>279.54</u>	<u>26.98</u>	<u>0.25256</u> ✓			
☐	1803182-01RE1	<u>297.77</u>	<u>37.36</u>	<u>0.26041</u> ✓			
☐	1803182-02RE1	<u>293.00</u>	<u>37.23</u>	<u>0.25577</u> ✓			
☐	1803182-03RE1	<u>297.85</u>	<u>37.25</u>	<u>0.26060</u> ✓			
☐	1803182-04RE1	<u>297.96</u>	<u>37.17</u>	<u>0.26079</u> ✓			
☐	1803182-05RE1	<u>293.88</u>	<u>37.30</u>	<u>0.25658</u> ✓			
☐	1803182-06RE1	<u>291.95</u>	<u>37.52</u>	<u>0.25439</u> ✓			
☐	1803182-07RE1	<u>299.62</u>	<u>37.31</u>	<u>0.26231</u> ✓			
☐	1803182-08RE1	<u>295.05</u>	<u>37.43</u>	<u>0.25762</u> ✓			
☐	1803182-09RE1	<u>292.85</u>	<u>37.66</u>	<u>0.25519</u> ✓			
☐	1803182-10RE1	<u>298.28</u>	<u>37.50</u>	<u>0.26078</u> ✓			
☐	1803182-11RE1	<u>293.64</u>	<u>37.71</u>	<u>0.25593</u> ✓			
☐	1803182-12RE1	<u>299.23</u>	<u>37.30</u>	<u>0.26193</u> ✓			

SS/IS: <u>18H1309, 20µL (V3)</u> NS: <u>18H1311, 10µL (V4)</u> IS/RS: <u>18H1310, 20µL (V1)</u>	SPE Chem: <u>518-003824</u> Lot#: <u>518-003824</u> Ele SOLV: <u>MeOH</u> Lot#: <u>518064209</u> Final Volume(s): <u>1 mL</u>	Notes: <u>1.25g of TRIZMA ADDED TO QC'S. 02 10/8/18</u>
---	---	---

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

Work Order 1803182

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

Method: 537 PFAS DW Unmodified MI So Sig Digs

B8J0059

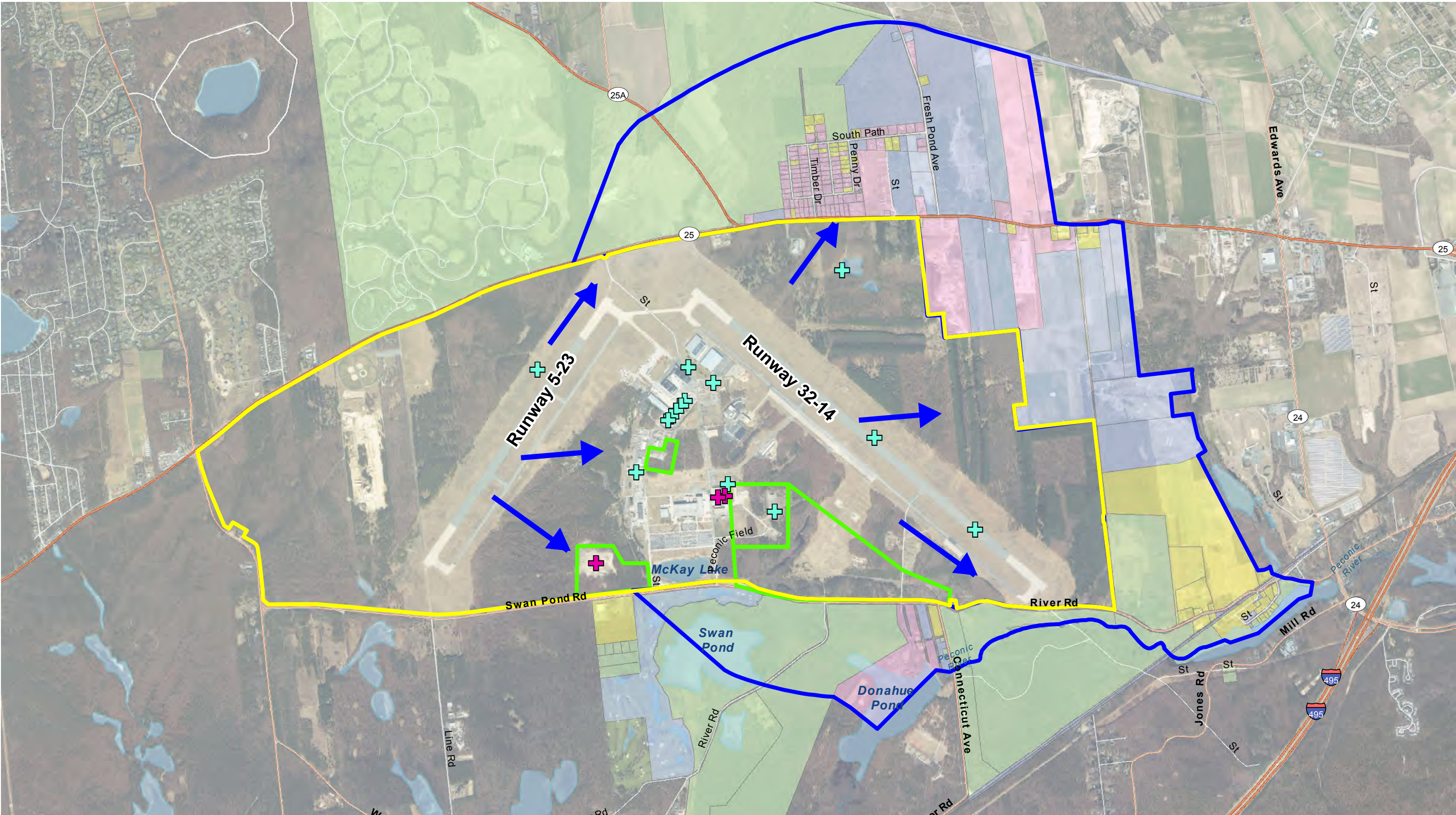
Chemist: 7R
Prep Date: 10-8-18
Prep Time: 10:05

Prepared using: LCMS - SPE Extraction-LCMS

Balance ID: <u>ALRMS-10</u> <u>10/8/18</u> <u>02</u>							
Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	1803182-13RE1	287.63	37.24	0.26042 ✓	7R 10-8-18	02	10/9/18
☐	1803182-14RE1	293.13	37.32	0.25591 ✓	T	T	T
☐	1803182-15RE1	294.18	37.51	0.25667 ✓	T	T	T
☐	1803182-16RE1	294.12	37.25	0.25687 ✓	T	T	T
☐	1803182-17RE1	294.95	37.37	0.25758 ✓	T	T	T

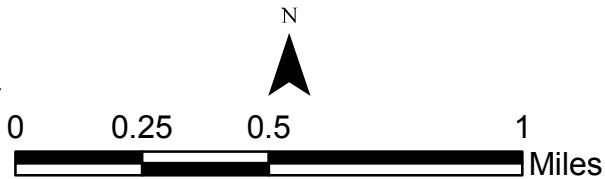
SS/IS: <u>18H1309, 20μL (V)</u> NS: <u>18H1311, 10μL (V)</u> IS/RS: <u>18H1310, 20μL (V)</u>	SPE Chem: <u>Strata X 33</u> <u>500 mg</u> Lot#: <u>500 mg</u> Ele SOLV: <u>MeOH</u> Lot#: <u>58069209</u> Final Volume(s): <u>1 mL</u>	Notes:
--	---	--------

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

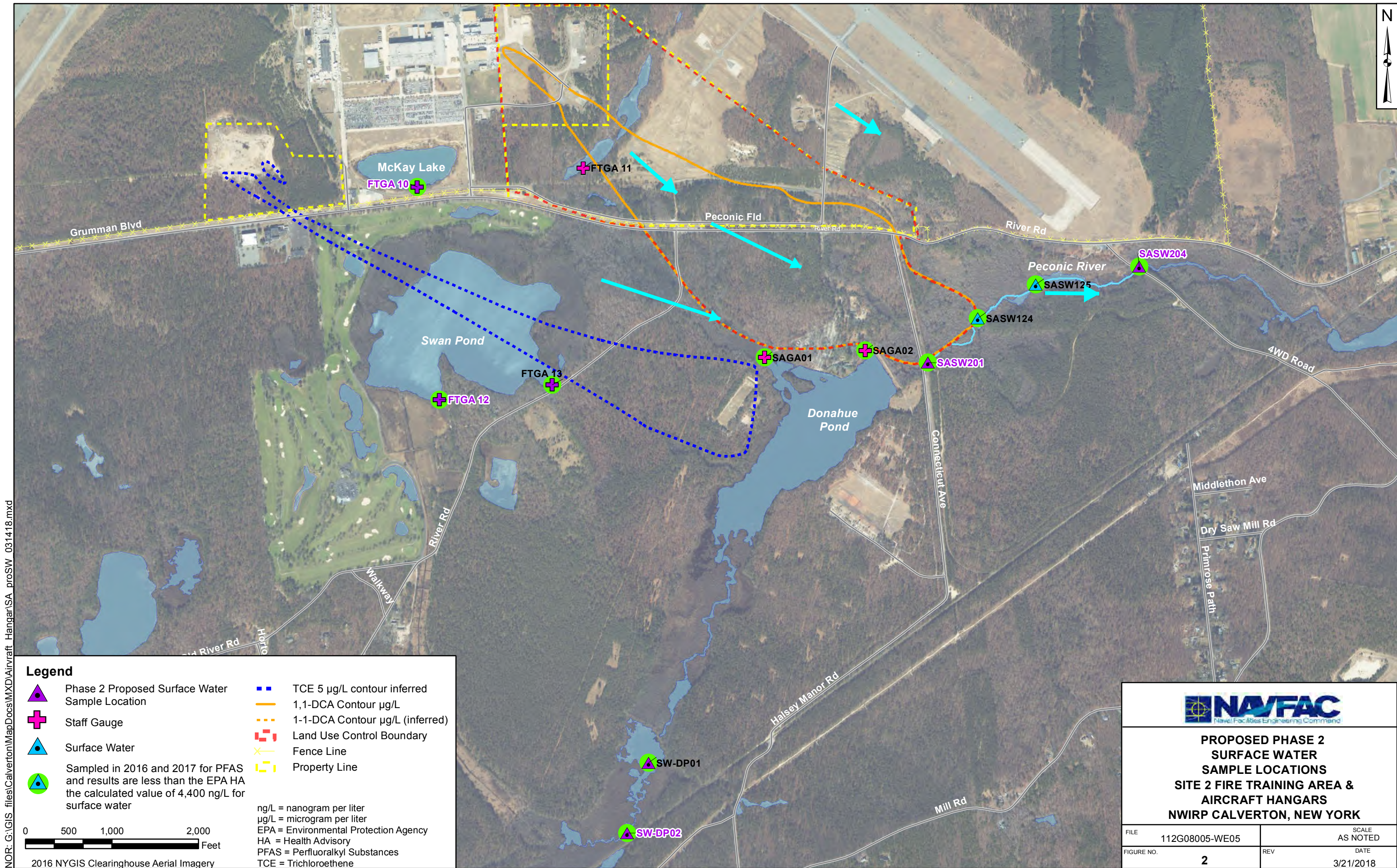


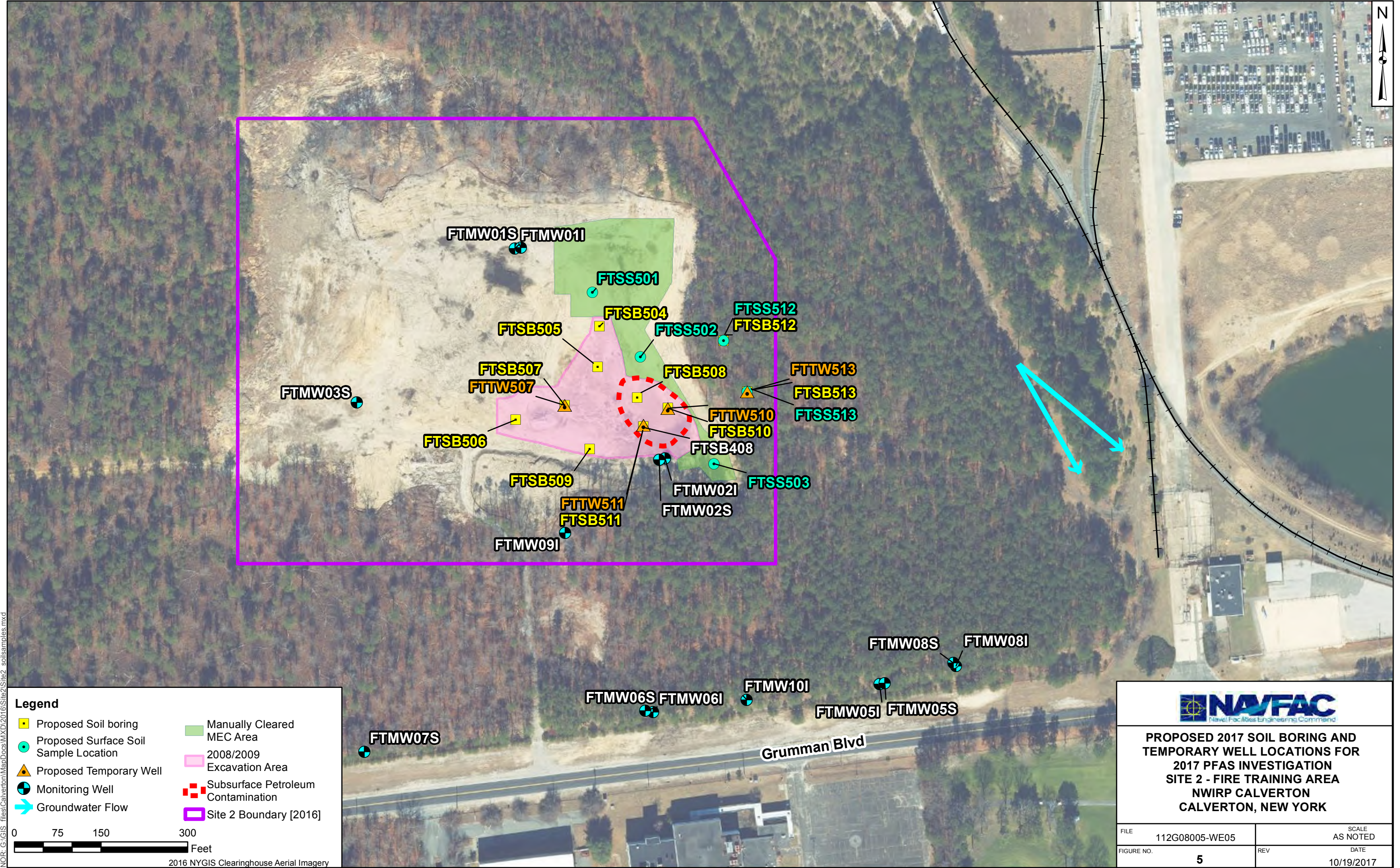
Legend

- | | | | | |
|------------------------------------|------------------------------|------------------------|--------------------|---|
| Location of Known PFAS Release | Groundwater Flow Direction | Former NWIRP Calverton | Government Parcels | Parcels Serviced by Riverhead Water District [†] |
| Location of Potential PFAS Release | Designated Area for Sampling | Current Navy Property | Other Parcels | Suspected Vacant or Unknown Parcels |



NOR: G:\GIS_files\Calverton\MapDocs\MXD\Aircraft_Hangar\SA_proSW_031418.mxd

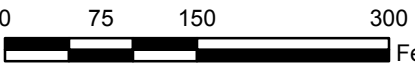




NOR: G:\GIS Files\Calverton\MapDocs\WXD\2016\Site2\Site2 soilsamples.mxd

Legend

- Proposed Soil boring
- Proposed Surface Soil Sample Location
- Proposed Temporary Well
- Monitoring Well
- Groundwater Flow
- Manually Cleared MEC Area
- 2008/2009 Excavation Area
- Subsurface Petroleum Contamination
- Site 2 Boundary [2016]

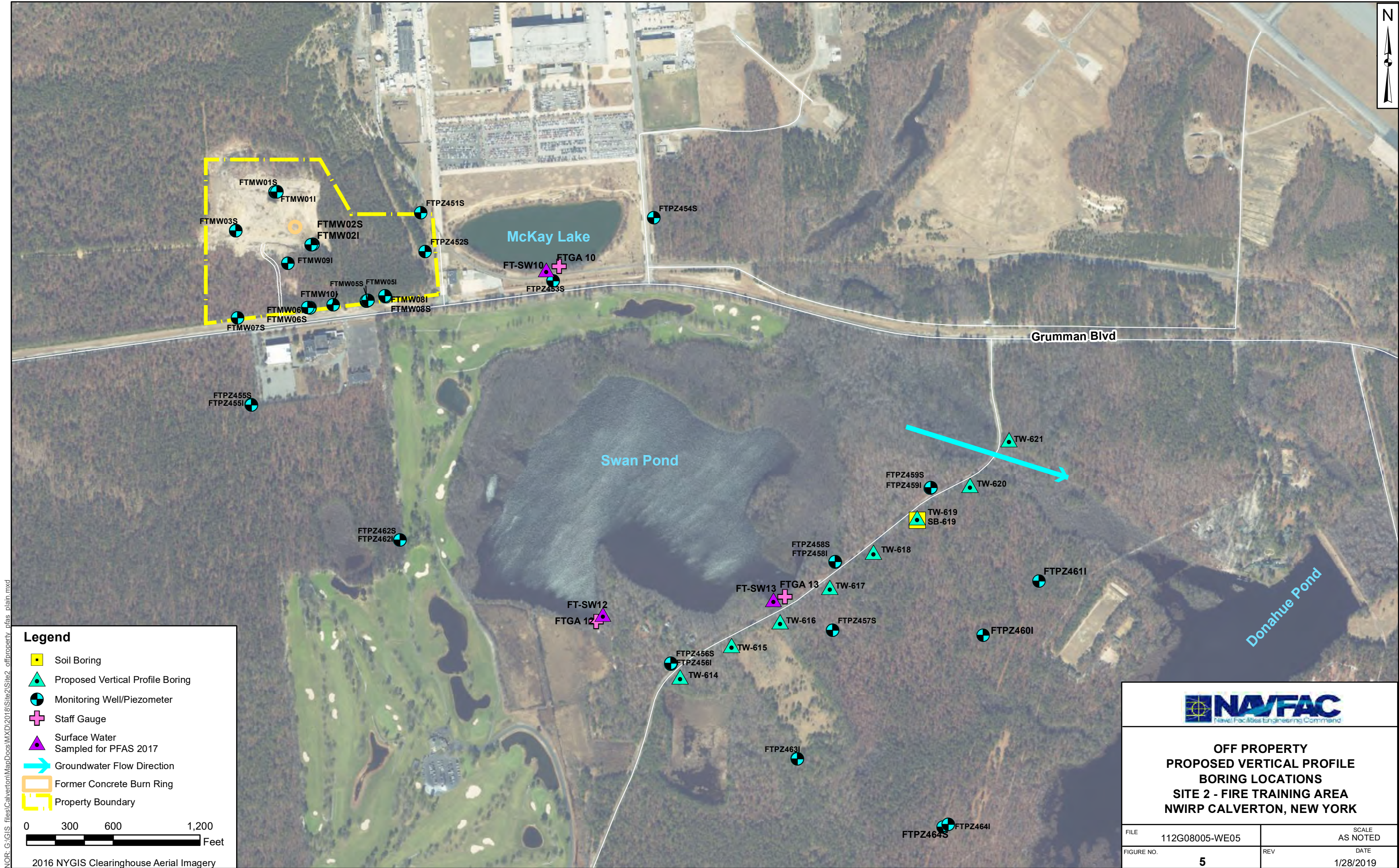


2016 NYGIS Clearinghouse Aerial Imagery



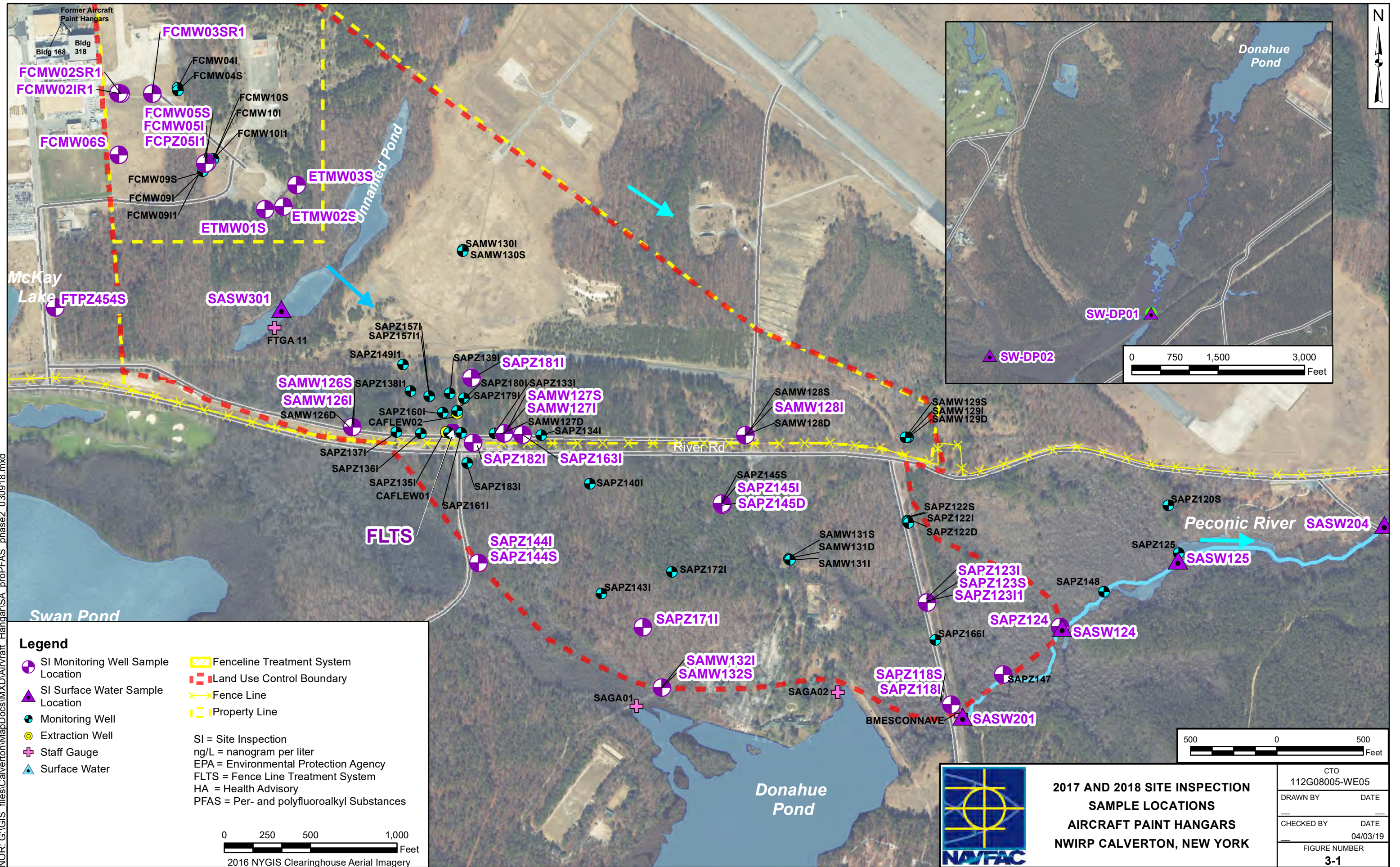
**PROPOSED 2017 SOIL BORING AND
TEMPORARY WELL LOCATIONS FOR
2017 PFAS INVESTIGATION
SITE 2 - FIRE TRAINING AREA
NWRP CALVERTON
CALVERTON, NEW YORK**

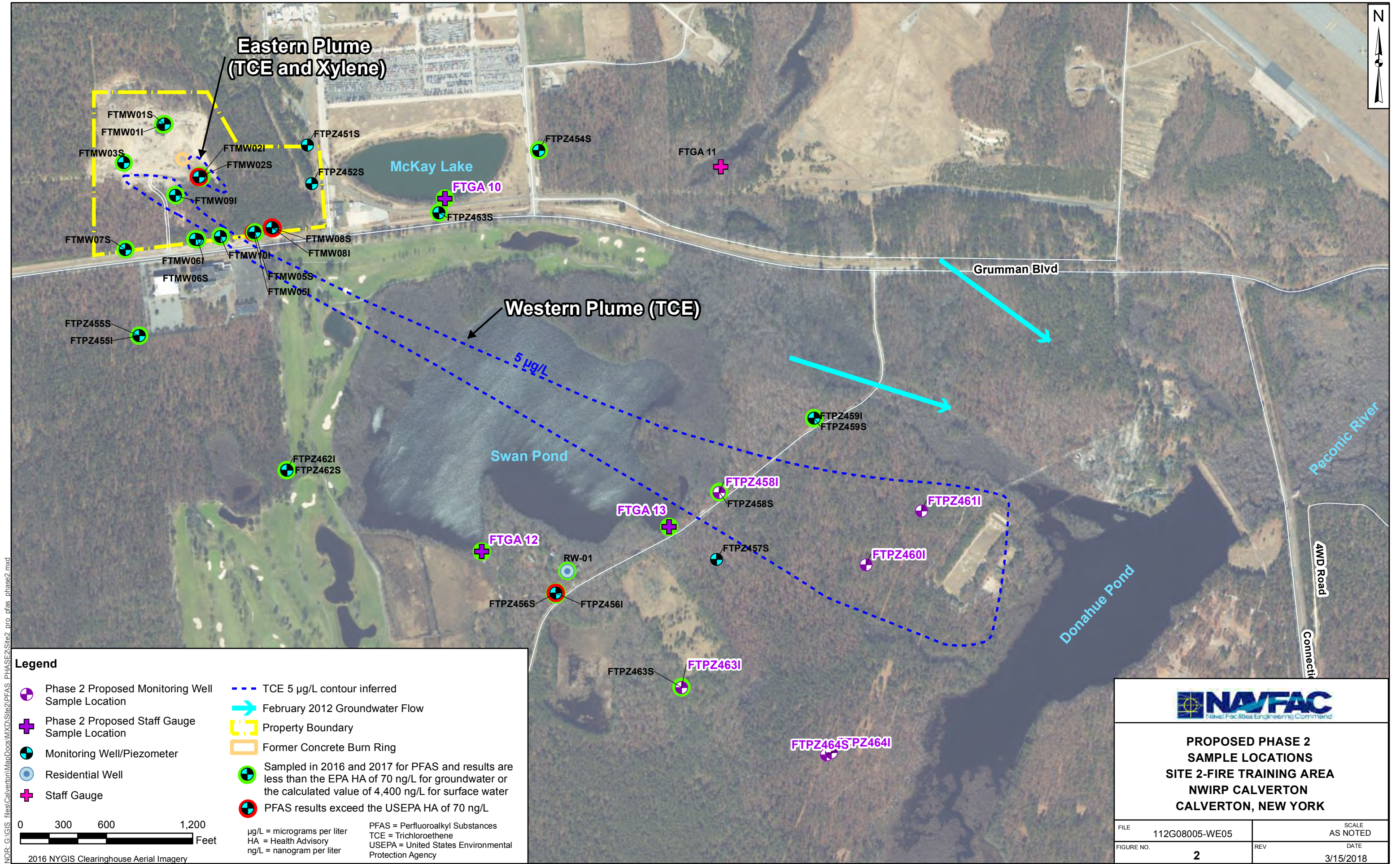
FILE	112G08005-WE05	SCALE	AS NOTED
FIGURE NO.	5	REV	DATE
			10/19/2017

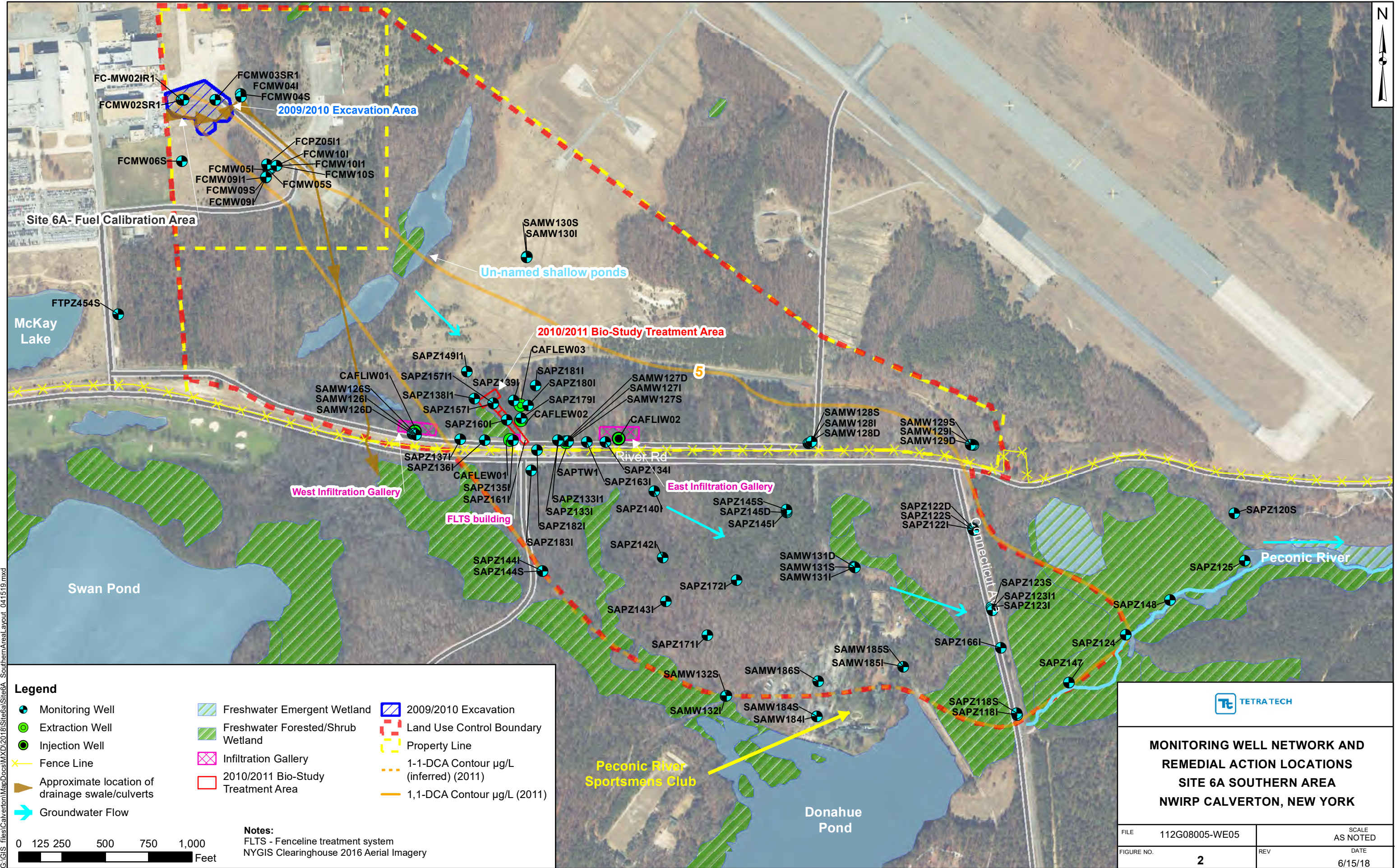


NOR: G:\GIS_files\Calverton\MapDocs\MXD\2018\Site2\Site2_offproperty_pfes_plain.mxd

NOR: G:\GIS_files\Calverton\MapDocs\MXD\Aircraft_Hangar\SA_proPFAS_phase2_030918.mxd







G:\GIS_files\Calverton\MapDocs\WMD\2018\Site6A Southern Area Layout 041519.mxd