

"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","375-73-5","PFBS","2.80","ng/L","U","1.00","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","307-24-4","PFHxA","2.80","ng/L","U","1.22","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","375-85-9","PFHpA","2.80","ng/L","U","0.331","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","355-46-4","PFHxS","2.80","ng/L","U","0.530","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","335-67-1","PFOA","1.55","ng/L","J","0.364","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","1763-23-1","PFOS","2.80","ng/L","U","0.452","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","375-95-1","PFNA","0.733","ng/L","J","0.453","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","335-76-2","PFDA","2.80","ng/L","U","0.834","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","2355-31-9","MeFOSAA","2.80","ng/L","U","0.923","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","2058-94-8","PFUnA","2.80","ng/L","U","0.588","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","2991-50-6","EtFOSAA","2.80","ng/L","U","0.767","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","307-55-1","PFDoA","2.80","ng/L","U","0.443","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","72629-94-8","PFTTrDA","2.80","ng/L","U","0.276","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","376-06-7","PFTeDA","2.80","ng/L","U","0.423","LOD","","TRG","","","4.48","LOQ","YES",-99,"","0.223","0.001","2.80",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","13C3-PFBS","13C3-PFBS","99.3","%R","","-99","NA","","IS","99.3","","-99","NA","YES","100","","0.223","0.001","-99",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","13C2-PFHxA","13C2-PFHxA","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.223","0.001","-99",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","13C4-PFHpA","13C4-PFHpA","96.6","%R","","-99","NA","","IS","96.6","","-99","NA","YES","100","","0.223","0.001","-99",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","18O2-PFHxS","18O2-PFHxS","113","%R","","-99","NA","","IS","113","","-99","NA","YES","100","","0.223","0.001","-99",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","13C2-PFOA","13C2-PFOA","105","%R","","-99","NA","","IS","105","","-99","NA","YES","100","","0.223","0.001","-99",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","13C8-PFOS","13C8-PFOS","97.1","%R","","-99","NA","","IS","97.1","","-99","NA","YES","100","","0.223","0.001","-99",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","13C5-PFNA","13C5-PFNA","89.3","%R","","-99","NA","","IS","89.3","","-99","NA","YES","100","","0.223","0.001","-99",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","13C2-PFDA","13C2-PFDA","67.9","%R","","-99","NA","","IS","67.9","","-99","NA","YES","100","","0.223","0.001","-99",""  
"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","d3-MeFOSAA","d3-MeFOSAA","100","%R","","-99","NA","","IS","100","","-99","NA","YES","100","","0.223","0.001","-99",""  
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"FT-PZ-462S-20171202","Modified EPA Method 537","Initial","1701851-01","Vista","d5-EtFOSAA","d5-

EtFOSAA", "77.0", "%R", "", "-99", "NA", "", "IS", "77.0", "", "-99", "NA", "YES", "100", "", "0.223", "0.001", "-99", ""  
"FT-PZ-462S-20171202", "Modified EPA Method 537", "Initial", "1701851-01", "Vista", "13C2-PFDoA", "13C2-  
PFDoA", "70.1", "%R", "", "-99", "NA", "", "IS", "70.1", "", "-99", "NA", "YES", "100", "", "0.223", "0.001", "-99", ""  
"FT-PZ-462S-20171202", "Modified EPA Method 537", "Initial", "1701851-01", "Vista", "13C2-PFTeDA", "13C2-  
PFTeDA", "62.6", "%R", "", "-99", "NA", "", "IS", "62.6", "", "-99", "NA", "YES", "100", "", "0.223", "0.001", "-99", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "375-73-  
5", "PFBS", "2.49", "ng/L", "U", "0.890", "LOD", "", "TRG", "", "", "3.98", "LOQ", "YES", "-99", "", "0.251", "0.001", "2.49", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "307-24-  
4", "PFHxA", "2.49", "ng/L", "U", "1.08", "LOD", "", "TRG", "", "", "3.98", "LOQ", "YES", "-99", "", "0.251", "0.001", "2.49", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "375-85-  
9", "PFHpA", "2.49", "ng/L", "U", "0.294", "LOD", "", "TRG", "", "", "3.98", "LOQ", "YES", "-99", "", "0.251", "0.001", "2.49", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "355-46-  
4", "PFHxS", "2.49", "ng/L", "U", "0.471", "LOD", "", "TRG", "", "", "3.98", "LOQ", "YES", "-99", "", "0.251", "0.001", "2.49", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "335-67-  
1", "PFOA", "2.49", "ng/L", "U", "0.324", "LOD", "", "TRG", "", "", "3.98", "LOQ", "YES", "-99", "", "0.251", "0.001", "2.49", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "1763-23-  
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"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "375-95-  
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"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "335-76-  
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"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "2355-31-  
9", "MeFOSAA", "2.49", "ng/L", "U", "0.821", "LOD", "", "TRG", "", "", "3.98", "LOQ", "YES", "-99", "", "0.251", "0.001", "2.49", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "2058-94-  
8", "PFUnA", "2.49", "ng/L", "U", "0.522", "LOD", "", "TRG", "", "", "3.98", "LOQ", "YES", "-99", "", "0.251", "0.001", "2.49", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "2991-50-  
6", "EtFOSAA", "2.49", "ng/L", "U", "0.681", "LOD", "", "TRG", "", "", "3.98", "LOQ", "YES", "-99", "", "0.251", "0.001", "2.49", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "307-55-  
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"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "72629-94-  
8", "PFTeDA", "2.49", "ng/L", "U", "0.246", "LOD", "", "TRG", "", "", "3.98", "LOQ", "YES", "-99", "", "0.251", "0.001", "2.49", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "376-06-  
7", "PFTeDA", "2.49", "ng/L", "U", "0.376", "LOD", "", "TRG", "", "", "3.98", "LOQ", "YES", "-99", "", "0.251", "0.001", "2.49", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "13C3-PFBS", "13C3-  
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"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "13C2-PFHxA", "13C2-  
PFHxA", "115", "%R", "", "-99", "NA", "", "IS", "115", "", "-99", "NA", "YES", "100", "", "0.251", "0.001", "-99", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "13C4-PFHpA", "13C4-  
PFHpA", "118", "%R", "", "-99", "NA", "", "IS", "118", "", "-99", "NA", "YES", "100", "", "0.251", "0.001", "-99", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "18O2-PFHxS", "18O2-  
PFHxS", "113", "%R", "", "-99", "NA", "", "IS", "113", "", "-99", "NA", "YES", "100", "", "0.251", "0.001", "-99", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "13C2-PFOA", "13C2-  
PFOA", "108", "%R", "", "-99", "NA", "", "IS", "108", "", "-99", "NA", "YES", "100", "", "0.251", "0.001", "-99", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "13C8-PFOS", "13C8-  
PFOS", "122", "%R", "", "-99", "NA", "", "IS", "122", "", "-99", "NA", "YES", "100", "", "0.251", "0.001", "-99", ""  
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PFNA", "97.5", "%R", "", "-99", "NA", "", "IS", "97.5", "", "-99", "NA", "YES", "100", "", "0.251", "0.001", "-99", ""  
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PFDA", "95.5", "%R", "", "-99", "NA", "", "IS", "95.5", "", "-99", "NA", "YES", "100", "", "0.251", "0.001", "-99", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "d3-MeFOSAA", "d3-

MeFOSAA", "74.9", "%R", "", "-99", "NA", "", "IS", "74.9", "", "-99", "NA", "YES", "100", "", "0.251", "0.001", "-99", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "13C2-PFUnA", "13C2-  
PFUnA", "81.2", "%R", "", "-99", "NA", "", "IS", "81.2", "", "-99", "NA", "YES", "100", "", "0.251", "0.001", "-99", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "d5-EtFOSAA", "d5-  
EtFOSAA", "81.0", "%R", "", "-99", "NA", "", "IS", "81.0", "", "-99", "NA", "YES", "100", "", "0.251", "0.001", "-99", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "13C2-PFDoA", "13C2-  
PFDoA", "71.3", "%R", "", "-99", "NA", "", "IS", "71.3", "", "-99", "NA", "YES", "100", "", "0.251", "0.001", "-99", ""  
"FT-PZ-462I-20171202", "Modified EPA Method 537", "Initial", "1701851-02", "Vista", "13C2-PFTeDA", "13C2-  
PFTeDA", "73.0", "%R", "", "-99", "NA", "", "IS", "73.0", "", "-99", "NA", "YES", "100", "", "0.251", "0.001", "-99", ""  
"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "375-73-  
5", "PFBS", "2.37", "ng/L", "U", "0.848", "LOD", "", "TRG", "", "", "3.79", "LOQ", "YES", "-99", "", "0.264", "0.001", "2.37", ""  
"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "307-24-  
4", "PFHxA", "2.37", "ng/L", "U", "1.03", "LOD", "", "TRG", "", "", "3.79", "LOQ", "YES", "-99", "", "0.264", "0.001", "2.37", ""  
"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "375-85-  
9", "PFHpA", "2.37", "ng/L", "U", "0.280", "LOD", "", "TRG", "", "", "3.79", "LOQ", "YES", "-99", "", "0.264", "0.001", "2.37", ""  
"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "355-46-  
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"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "1763-23-  
1", "PFOS", "2.37", "ng/L", "U", "0.382", "LOD", "", "TRG", "", "", "3.79", "LOQ", "YES", "-99", "", "0.264", "0.001", "2.37", ""  
"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "375-95-  
1", "PFNA", "2.37", "ng/L", "U", "0.384", "LOD", "", "TRG", "", "", "3.79", "LOQ", "YES", "-99", "", "0.264", "0.001", "2.37", ""  
"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "335-76-  
2", "PFDA", "2.37", "ng/L", "U", "0.706", "LOD", "", "TRG", "", "", "3.79", "LOQ", "YES", "-99", "", "0.264", "0.001", "2.37", ""  
"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "2355-31-  
9", "MeFOSAA", "2.37", "ng/L", "U", "0.782", "LOD", "", "TRG", "", "", "3.79", "LOQ", "YES", "-99", "", "0.264", "0.001", "2.37", ""  
"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "2058-94-  
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"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "2991-50-  
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"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "72629-94-  
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"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "376-06-  
7", "PFTeDA", "2.37", "ng/L", "U", "0.358", "LOD", "", "TRG", "", "", "3.79", "LOQ", "YES", "-99", "", "0.264", "0.001", "2.37", ""  
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"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "13C2-PFHxA", "13C2-  
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"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "18O2-PFHxS", "18O2-  
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"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "13C2-PFOA", "13C2-  
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PFOS", "124", "%R", "", "-99", "NA", "", "IS", "124", "", "-99", "NA", "YES", "100", "", "0.264", "0.001", "-99", ""  
"FT-PZ-455S-20171202", "Modified EPA Method 537", "Initial", "1701851-03", "Vista", "13C5-PFNA", "13C5-

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MeFOSAA", "93.8", "%R", "", "-99", "NA", "", "IS", "93.8", "", "-99", "NA", "YES", "100", "", "0.264", "0.001", "-99", ""  
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PFUnA", "96.1", "%R", "", "-99", "NA", "", "IS", "96.1", "", "-99", "NA", "YES", "100", "", "0.264", "0.001", "-99", ""  
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"FT-PZ-455I-20171202", "Modified EPA Method 537", "Initial", "1701851-04", "Vista", "72629-94-  
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PFHxA","112","%R","",-99,"NA","","IS","112","",-99,"NA","YES","100","","0.262","0.001","-99",""  
"FT-PZ-453S-FRB-20171202","Modified EPA Method 537","Initial","1701851-06","Vista","13C4-PFHpA","13C4-  
PFHpA","116","%R","",-99,"NA","","IS","116","",-99,"NA","YES","100","","0.262","0.001","-99",""  
"FT-PZ-453S-FRB-20171202","Modified EPA Method 537","Initial","1701851-06","Vista","18O2-PFHxS","18O2-  
PFHxS","114","%R","",-99,"NA","","IS","114","",-99,"NA","YES","100","","0.262","0.001","-99",""  
"FT-PZ-453S-FRB-20171202","Modified EPA Method 537","Initial","1701851-06","Vista","13C2-PFOA","13C2-  
PFOA","105","%R","",-99,"NA","","IS","105","",-99,"NA","YES","100","","0.262","0.001","-99",""  
"FT-PZ-453S-FRB-20171202","Modified EPA Method 537","Initial","1701851-06","Vista","13C8-PFOS","13C8-  
PFOS","124","%R","",-99,"NA","","IS","124","",-99,"NA","YES","100","","0.262","0.001","-99",""  
"FT-PZ-453S-FRB-20171202","Modified EPA Method 537","Initial","1701851-06","Vista","13C5-PFNA","13C5-  
PFNA","102","%R","",-99,"NA","","IS","102","",-99,"NA","YES","100","","0.262","0.001","-99",""  
"FT-PZ-453S-FRB-20171202","Modified EPA Method 537","Initial","1701851-06","Vista","13C2-PFDA","13C2-  
PFDA","82.0","%R","",-99,"NA","","IS","82.0","",-99,"NA","YES","100","","0.262","0.001","-99",""  
"FT-PZ-453S-FRB-20171202","Modified EPA Method 537","Initial","1701851-06","Vista","d3-MeFOSAA","d3-  
MeFOSAA","96.3","%R","",-99,"NA","","IS","96.3","",-99,"NA","YES","100","","0.262","0.001","-99",""  
"FT-PZ-453S-FRB-20171202","Modified EPA Method 537","Initial","1701851-06","Vista","13C2-PFUnA","13C2-  
PFUnA","72.7","%R","",-99,"NA","","IS","72.7","",-99,"NA","YES","100","","0.262","0.001","-99",""  
"FT-PZ-453S-FRB-20171202","Modified EPA Method 537","Initial","1701851-06","Vista","d5-EtFOSAA","d5-  
EtFOSAA","77.5","%R","",-99,"NA","","IS","77.5","",-99,"NA","YES","100","","0.262","0.001","-99",""  
"FT-PZ-453S-FRB-20171202","Modified EPA Method 537","Initial","1701851-06","Vista","13C2-PFDoA","13C2-  
PFDoA","90.3","%R","",-99,"NA","","IS","90.3","",-99,"NA","YES","100","","0.262","0.001","-99",""  
"FT-PZ-453S-FRB-20171202","Modified EPA Method 537","Initial","1701851-06","Vista","13C2-PFTeDA","13C2-  
PFTeDA","98.9","%R","",-99,"NA","","IS","98.9","",-99,"NA","YES","100","","0.262","0.001","-99",""  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","375-73-  
5","PFBS","2.46","ng/L","U","0.882","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","307-24-  
4","PFHxA","2.46","ng/L","U","1.07","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","375-85-  
9","PFHpA","2.46","ng/L","U","0.291","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","355-46-  
4","PFHxS","2.46","ng/L","U","0.467","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","335-67-  
1","PFOA","2.46","ng/L","U","0.321","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","1763-23-  
1","PFOS","2.46","ng/L","U","0.398","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","375-95-  
1","PFNA","2.46","ng/L","U","0.399","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","335-76-  
2","PFDA","2.46","ng/L","U","0.734","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","2355-31-  
9","MeFOSAA","2.46","ng/L","U","0.813","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46"  
"  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","2058-94-  
8","PFUnA","2.46","ng/L","U","0.518","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","2991-50-  
6","EtFOSAA","2.46","ng/L","U","0.675","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46"  
"  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","307-55-  
1","PFDoA","2.46","ng/L","U","0.390","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","72629-94-  
8","PFTTrDA","2.46","ng/L","U","0.243","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""  
"

"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","376-06-7","PFTeDA","2.46","ng/L","U","0.372","LOD","","TRG","","","3.94","LOQ","YES","-99","","","0.254","0.001","2.46",  
""  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","13C3-PFBS","13C3-PFBS","118","%R","","-99","NA","","IS","118","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","13C2-PFHxA","13C2-PFHxA","111","%R","","-99","NA","","IS","111","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","13C4-PFHpA","13C4-PFHpA","106","%R","","-99","NA","","IS","106","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","18O2-PFHxS","18O2-PFHxS","94.5","%R","","-99","NA","","IS","94.5","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","13C2-PFOA","13C2-PFOA","106","%R","","-99","NA","","IS","106","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","13C8-PFOS","13C8-PFOS","114","%R","","-99","NA","","IS","114","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","13C5-PFNA","13C5-PFNA","113","%R","","-99","NA","","IS","113","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","13C2-PFDA","13C2-PFDA","107","%R","","-99","NA","","IS","107","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","d3-MeFOSAA","d3-MeFOSAA","81.9","%R","","-99","NA","","IS","81.9","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","13C2-PFUnA","13C2-PFUnA","103","%R","","-99","NA","","IS","103","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","d5-EtFOSAA","d5-EtFOSAA","88.0","%R","","-99","NA","","IS","88.0","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","13C2-PFDoA","13C2-PFDoA","87.8","%R","","-99","NA","","IS","87.8","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-FRB-20171204","Modified EPA Method 537","Initial","1701851-07","Vista","13C2-PFTeDA","13C2-PFTeDA","91.1","%R","","-99","NA","","IS","91.1","","-99","NA","YES","100","","","0.254","0.001","-99",  
"FT-PZ-456I-20171204","Modified EPA Method 537","Initial","1701851-08","Vista","375-73-5","PFBS","2.40","ng/L","U","0.859","LOD","","TRG","","","3.84","LOQ","YES","-99","","","0.260","0.001","2.40",  
"FT-PZ-456I-20171204","Modified EPA Method 537","Initial","1701851-08","Vista","307-24-4","PFHxA","7.07","ng/L","","1.05","LOD","","TRG","","","3.84","LOQ","YES","-99","","","0.260","0.001","2.40",  
"FT-PZ-456I-20171204","Modified EPA Method 537","Initial","1701851-08","Vista","375-85-9","PFHpA","4.46","ng/L","","0.284","LOD","","TRG","","","3.84","LOQ","YES","-99","","","0.260","0.001","2.40",  
"FT-PZ-456I-20171204","Modified EPA Method 537","Initial","1701851-08","Vista","355-46-4","PFHxS","2.40","ng/L","U","0.455","LOD","","TRG","","","3.84","LOQ","YES","-99","","","0.260","0.001","2.40",  
"FT-PZ-456I-20171204","Modified EPA Method 537","Initial","1701851-08","Vista","335-67-1","PFOA","13.3","ng/L","","0.312","LOD","","TRG","","","3.84","LOQ","YES","-99","","","0.260","0.001","2.40",  
"FT-PZ-456I-20171204","Modified EPA Method 537","Initial","1701851-08","Vista","1763-23-1","PFOS","2.40","ng/L","U","0.387","LOD","","TRG","","","3.84","LOQ","YES","-99","","","0.260","0.001","2.40",  
"FT-PZ-456I-20171204","Modified EPA Method 537","Initial","1701851-08","Vista","375-95-1","PFNA","7.17","ng/L","","0.389","LOD","","TRG","","","3.84","LOQ","YES","-99","","","0.260","0.001","2.40",  
"FT-PZ-456I-20171204","Modified EPA Method 537","Initial","1701851-08","Vista","335-76-2","PFDA","2.40","ng/L","U","0.715","LOD","","TRG","","","3.84","LOQ","YES","-99","","","0.260","0.001","2.40",  
"FT-PZ-456I-20171204","Modified EPA Method 537","Initial","1701851-08","Vista","2355-31-9","MeFOSAA","2.40","ng/L","U","0.792","LOD","","TRG","","","3.84","LOQ","YES","-99","","","0.260","0.001","2.40",  
"FT-PZ-456I-20171204","Modified EPA Method 537","Initial","1701851-08","Vista","2058-94-8","PFUnA","2.40","ng/L","U","0.504","LOD","","TRG","","","3.84","LOQ","YES","-99","","","0.260","0.001","2.40",  
"FT-PZ-456I-20171204","Modified EPA Method 537","Initial","1701851-08","Vista","2991-50-6","EtFOSAA","2.40","ng/L","U","0.658","LOD","","TRG","","","3.84","LOQ","YES","-99","","","0.260","0.001","2.40",  
"FT-PZ-456I-20171204","Modified EPA Method 537","Initial","1701851-08","Vista","307-55-

1", "PFD<sub>o</sub>A", "2.40", "ng/L", "U", "0.380", "LOD", "", "TRG", "", "", "3.84", "LOQ", "YES", "-99", "", "0.260", "0.001", "2.40", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "72629-94-8", "PFT<sub>r</sub>DA", "2.40", "ng/L", "U", "0.237", "LOD", "", "TRG", "", "", "3.84", "LOQ", "YES", "-99", "", "0.260", "0.001", "2.40", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "376-06-7", "PFT<sub>e</sub>DA", "2.40", "ng/L", "U", "0.362", "LOD", "", "TRG", "", "", "3.84", "LOQ", "YES", "-99", "", "0.260", "0.001", "2.40", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "13C3-PFBS", "13C3-PFBS", "124", "%R", "", "-99", "NA", "", "IS", "124", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "13C2-PFH<sub>x</sub>A", "13C2-PFH<sub>x</sub>A", "110", "%R", "", "-99", "NA", "", "IS", "110", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "13C4-PFH<sub>p</sub>A", "13C4-PFH<sub>p</sub>A", "112", "%R", "", "-99", "NA", "", "IS", "112", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "18O2-PFH<sub>x</sub>S", "18O2-PFH<sub>x</sub>S", "98.5", "%R", "", "-99", "NA", "", "IS", "98.5", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "13C2-PFOA", "13C2-PFOA", "97.7", "%R", "", "-99", "NA", "", "IS", "97.7", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "13C8-PFOS", "13C8-PFOS", "107", "%R", "", "-99", "NA", "", "IS", "107", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "13C5-PFNA", "13C5-PFNA", "86.3", "%R", "", "-99", "NA", "", "IS", "86.3", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "13C2-PFDA", "13C2-PFDA", "109", "%R", "", "-99", "NA", "", "IS", "109", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "d3-MeFOSAA", "d3-MeFOSAA", "93.3", "%R", "", "-99", "NA", "", "IS", "93.3", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "13C2-PFUnA", "13C2-PFUnA", "111", "%R", "", "-99", "NA", "", "IS", "111", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "d5-EtFOSAA", "d5-EtFOSAA", "107", "%R", "", "-99", "NA", "", "IS", "107", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "13C2-PFD<sub>o</sub>A", "13C2-PFD<sub>o</sub>A", "104", "%R", "", "-99", "NA", "", "IS", "104", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456I-20171204", "Modified EPA Method 537", "Initial", "1701851-08", "Vista", "13C2-PFT<sub>e</sub>DA", "13C2-PFT<sub>e</sub>DA", "102", "%R", "", "-99", "NA", "", "IS", "102", "", "-99", "NA", "YES", "100", "", "0.260", "0.001", "-99", ""  
"FT-PZ-456S-20171204", "Modified EPA Method 537", "Initial", "1701851-09", "Vista", "375-73-5", "PFBS", "2.41", "ng/L", "U", "0.864", "LOD", "", "TRG", "", "", "3.86", "LOQ", "YES", "-99", "", "0.259", "0.001", "2.41", ""  
"FT-PZ-456S-20171204", "Modified EPA Method 537", "Initial", "1701851-09", "Vista", "307-24-4", "PFH<sub>x</sub>A", "2.41", "ng/L", "U", "1.05", "LOD", "", "TRG", "", "", "3.86", "LOQ", "YES", "-99", "", "0.259", "0.001", "2.41", ""  
"FT-PZ-456S-20171204", "Modified EPA Method 537", "Initial", "1701851-09", "Vista", "375-85-9", "PFH<sub>p</sub>A", "2.41", "ng/L", "U", "0.285", "LOD", "", "TRG", "", "", "3.86", "LOQ", "YES", "-99", "", "0.259", "0.001", "2.41", ""  
"FT-PZ-456S-20171204", "Modified EPA Method 537", "Initial", "1701851-09", "Vista", "355-46-4", "PFH<sub>x</sub>S", "2.41", "ng/L", "U", "0.457", "LOD", "", "TRG", "", "", "3.86", "LOQ", "YES", "-99", "", "0.259", "0.001", "2.41", ""  
"FT-PZ-456S-20171204", "Modified EPA Method 537", "Initial", "1701851-09", "Vista", "335-67-1", "PFOA", "2.41", "ng/L", "U", "0.314", "LOD", "", "TRG", "", "", "3.86", "LOQ", "YES", "-99", "", "0.259", "0.001", "2.41", ""  
"FT-PZ-456S-20171204", "Modified EPA Method 537", "Initial", "1701851-09", "Vista", "1763-23-1", "PFOS", "2.41", "ng/L", "U", "0.390", "LOD", "", "TRG", "", "", "3.86", "LOQ", "YES", "-99", "", "0.259", "0.001", "2.41", ""  
"FT-PZ-456S-20171204", "Modified EPA Method 537", "Initial", "1701851-09", "Vista", "375-95-1", "PFNA", "2.41", "ng/L", "U", "0.391", "LOD", "", "TRG", "", "", "3.86", "LOQ", "YES", "-99", "", "0.259", "0.001", "2.41", ""  
"FT-PZ-456S-20171204", "Modified EPA Method 537", "Initial", "1701851-09", "Vista", "335-76-2", "PFDA", "2.41", "ng/L", "U", "0.719", "LOD", "", "TRG", "", "", "3.86", "LOQ", "YES", "-99", "", "0.259", "0.001", "2.41", ""  
"FT-PZ-456S-20171204", "Modified EPA Method 537", "Initial", "1701851-09", "Vista", "2355-31-9", "MeFOSAA", "2.41", "ng/L", "U", "0.796", "LOD", "", "TRG", "", "", "3.86", "LOQ", "YES", "-99", "", "0.259", "0.001", "2.41", ""  
"FT-PZ-456S-20171204", "Modified EPA Method 537", "Initial", "1701851-09", "Vista", "2058-94-8", "PFUnA", "2.41", "ng/L", "U", "0.507", "LOD", "", "TRG", "", "", "3.86", "LOQ", "YES", "-99", "", "0.259", "0.001", "2.41", ""

"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","2991-50-6","EtFOSAA","2.41","ng/L","U","0.661","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",  
,""  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","307-55-1","PFDoA","2.41","ng/L","U","0.382","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","72629-94-8","PFTTrDA","2.41","ng/L","U","0.238","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",  
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"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","376-06-7","PFTeDA","2.41","ng/L","U","0.364","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",  
,""  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","13C3-PFBS","13C3-PFBS","146","%R","","-99","NA","","IS","146","","-99","NA","YES","100","","0.259","0.001","-99",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","13C2-PFHxA","13C2-PFHxA","120","%R","","-99","NA","","IS","120","","-99","NA","YES","100","","0.259","0.001","-99",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","13C4-PFHpA","13C4-PFHpA","122","%R","","-99","NA","","IS","122","","-99","NA","YES","100","","0.259","0.001","-99",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","18O2-PFHxS","18O2-PFHxS","114","%R","","-99","NA","","IS","114","","-99","NA","YES","100","","0.259","0.001","-99",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","13C2-PFOA","13C2-PFOA","112","%R","","-99","NA","","IS","112","","-99","NA","YES","100","","0.259","0.001","-99",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","13C8-PFOS","13C8-PFOS","112","%R","","-99","NA","","IS","112","","-99","NA","YES","100","","0.259","0.001","-99",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","13C5-PFNA","13C5-PFNA","108","%R","","-99","NA","","IS","108","","-99","NA","YES","100","","0.259","0.001","-99",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","13C2-PFDA","13C2-PFDA","92.7","%R","","-99","NA","","IS","92.7","","-99","NA","YES","100","","0.259","0.001","-99",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","d3-MeFOSAA","d3-MeFOSAA","81.1","%R","","-99","NA","","IS","81.1","","-99","NA","YES","100","","0.259","0.001","-99",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","13C2-PFUnA","13C2-PFUnA","88.0","%R","","-99","NA","","IS","88.0","","-99","NA","YES","100","","0.259","0.001","-99",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","d5-EtFOSAA","d5-EtFOSAA","84.1","%R","","-99","NA","","IS","84.1","","-99","NA","YES","100","","0.259","0.001","-99",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","13C2-PFDoA","13C2-PFDoA","71.3","%R","","-99","NA","","IS","71.3","","-99","NA","YES","100","","0.259","0.001","-99",  
"FT-PZ-456S-20171204","Modified EPA Method 537","Initial","1701851-09","Vista","13C2-PFTeDA","13C2-PFTeDA","80.1","%R","","-99","NA","","IS","80.1","","-99","NA","YES","100","","0.259","0.001","-99",  
"B7L0101-BLK1","Modified EPA Method 537","Initial","B7L0101-BLK1","Vista","375-73-5","PFBS","2.50","ng/L","U","0.895","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",  
"B7L0101-BLK1","Modified EPA Method 537","Initial","B7L0101-BLK1","Vista","307-24-4","PFHxA","2.50","ng/L","U","1.09","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",  
"B7L0101-BLK1","Modified EPA Method 537","Initial","B7L0101-BLK1","Vista","375-85-9","PFHpA","2.50","ng/L","U","0.296","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",  
"B7L0101-BLK1","Modified EPA Method 537","Initial","B7L0101-BLK1","Vista","355-46-4","PFHxS","2.50","ng/L","U","0.474","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",  
"B7L0101-BLK1","Modified EPA Method 537","Initial","B7L0101-BLK1","Vista","335-67-1","PFOA","2.50","ng/L","U","0.326","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",  
"B7L0101-BLK1","Modified EPA Method 537","Initial","B7L0101-BLK1","Vista","1763-23-1","PFOS","2.50","ng/L","U","0.404","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",  
"B7L0101-BLK1","Modified EPA Method 537","Initial","B7L0101-BLK1","Vista","375-95-1","PFNA","2.50","ng/L","U","0.405","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",  
"B7L0101-BLK1","Modified EPA Method 537","Initial","B7L0101-BLK1","Vista","335-76-2","PFDA","2.50","ng/L","U","0.745","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",  
"B7L0101-BLK1","Modified EPA Method 537","Initial","B7L0101-BLK1","Vista","2355-31-

9", "MeFOSAA", "2.50", "ng/L", "U", "0.825", "LOD", "", "TRG", "", "", "4.00", "LOQ", "YES", "-99", "", "0.250", "0.001", "2.50", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "2058-94-8", "PFUnA", "2.50", "ng/L", "U", "0.525", "LOD", "", "TRG", "", "", "4.00", "LOQ", "YES", "-99", "", "0.250", "0.001", "2.50", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "2991-50-6", "EtFOSAA", "2.50", "ng/L", "U", "0.685", "LOD", "", "TRG", "", "", "4.00", "LOQ", "YES", "-99", "", "0.250", "0.001", "2.50", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "307-55-1", "PFDoA", "2.50", "ng/L", "U", "0.396", "LOD", "", "TRG", "", "", "4.00", "LOQ", "YES", "-99", "", "0.250", "0.001", "2.50", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "72629-94-8", "PFTeDA", "2.50", "ng/L", "U", "0.247", "LOD", "", "TRG", "", "", "4.00", "LOQ", "YES", "-99", "", "0.250", "0.001", "2.50", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "376-06-7", "PFTeDA", "2.50", "ng/L", "U", "0.378", "LOD", "", "TRG", "", "", "4.00", "LOQ", "YES", "-99", "", "0.250", "0.001", "2.50", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "13C3-PFBS", "13C3-PFBS", "134", "%R", "", "-99", "NA", "", "IS", "134", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "13C2-PFHxA", "13C2-PFHxA", "134", "%R", "", "-99", "NA", "", "IS", "134", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "13C4-PFHpA", "13C4-PFHpA", "106", "%R", "", "-99", "NA", "", "IS", "106", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "18O2-PFHxS", "18O2-PFHxS", "112", "%R", "", "-99", "NA", "", "IS", "112", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "13C2-PFOA", "13C2-PFOA", "98.3", "%R", "", "-99", "NA", "", "IS", "98.3", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "13C8-PFOS", "13C8-PFOS", "93.7", "%R", "", "-99", "NA", "", "IS", "93.7", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "13C5-PFNA", "13C5-PFNA", "93.3", "%R", "", "-99", "NA", "", "IS", "93.3", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "13C2-PFDA", "13C2-PFDA", "92.6", "%R", "", "-99", "NA", "", "IS", "92.6", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "d3-MeFOSAA", "d3-MeFOSAA", "56.6", "%R", "", "-99", "NA", "", "IS", "56.6", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "13C2-PFUnA", "13C2-PFUnA", "71.4", "%R", "", "-99", "NA", "", "IS", "71.4", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "d5-EtFOSAA", "d5-EtFOSAA", "57.8", "%R", "", "-99", "NA", "", "IS", "57.8", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "13C2-PFDoA", "13C2-PFDoA", "69.9", "%R", "", "-99", "NA", "", "IS", "69.9", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BLK1", "Modified EPA Method 537", "Initial", "B7L0101-BLK1", "Vista", "13C2-PFTeDA", "13C2-PFTeDA", "96.9", "%R", "", "-99", "NA", "", "IS", "96.9", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""

"B7L0101-BS1", "Modified EPA Method 537", "Initial", "B7L0101-BS1", "Vista", "375-73-5", "PFBS", "45.2", "ng/L", "", "0.895", "LOD", "", "TRG", "113", "", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""

"B7L0101-BS1", "Modified EPA Method 537", "Initial", "B7L0101-BS1", "Vista", "307-24-4", "PFHxA", "37.4", "ng/L", "", "1.09", "LOD", "", "TRG", "93.5", "", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""

"B7L0101-BS1", "Modified EPA Method 537", "Initial", "B7L0101-BS1", "Vista", "375-85-9", "PFHpA", "40.2", "ng/L", "", "0.296", "LOD", "", "TRG", "100", "", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""

"B7L0101-BS1", "Modified EPA Method 537", "Initial", "B7L0101-BS1", "Vista", "355-46-4", "PFHxS", "46.4", "ng/L", "", "0.474", "LOD", "", "TRG", "116", "", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""

"B7L0101-BS1", "Modified EPA Method 537", "Initial", "B7L0101-BS1", "Vista", "335-67-

"1","PFOA","33.0","ng/L","","0.326","LOD","","TRG","82.5","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","1763-23-  
1","PFOS","36.6","ng/L","","0.404","LOD","","TRG","91.6","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","375-95-  
1","PFNA","34.6","ng/L","","0.405","LOD","","TRG","86.5","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","335-76-  
2","PFDA","50.9","ng/L","","0.745","LOD","","TRG","127","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","2355-31-  
9","MeFOSAA","36.4","ng/L","","0.825","LOD","","TRG","91.0","","4.00","LOQ","YES","40.0","","0.250","0.001",  
"2.50",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","2058-94-  
8","PFUnA","40.7","ng/L","","0.525","LOD","","TRG","102","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","2991-50-  
6","EtFOSAA","44.2","ng/L","","0.685","LOD","","TRG","111","","4.00","LOQ","YES","40.0","","0.250","0.001",  
"2.50",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","307-55-  
1","PFDoA","36.5","ng/L","","0.396","LOD","","TRG","91.2","","4.00","LOQ","YES","40.0","","0.250","0.001",  
"2.50",  
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"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","72629-94-  
8","PFTTrDA","32.7","ng/L","","0.247","LOD","","TRG","81.7","","4.00","LOQ","YES","40.0","","0.250","0.001",  
"2.50",  
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"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","376-06-  
7","PFTeDA","37.4","ng/L","","0.378","LOD","","TRG","93.4","","4.00","LOQ","YES","40.0","","0.250","0.001",  
"2.50",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","13C3-PFBS","13C3-  
PFBS","112","%R","","-99","NA","","IS","112","","-99","NA","YES","100","","0.250","0.001",  
"-99",  
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"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","13C2-PFHxA","13C2-  
PFHxA","94.2","%R","","-99","NA","","IS","94.2","","-99","NA","YES","100","","0.250","0.001",  
"-99",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","13C4-PFHpA","13C4-  
PFHpA","105","%R","","-99","NA","","IS","105","","-99","NA","YES","100","","0.250","0.001",  
"-99",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","18O2-PFHxS","18O2-  
PFHxS","104","%R","","-99","NA","","IS","104","","-99","NA","YES","100","","0.250","0.001",  
"-99",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","13C2-PFOA","13C2-  
PFOA","103","%R","","-99","NA","","IS","103","","-99","NA","YES","100","","0.250","0.001",  
"-99",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","13C8-PFOS","13C8-  
PFOS","107","%R","","-99","NA","","IS","107","","-99","NA","YES","100","","0.250","0.001",  
"-99",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","13C5-PFNA","13C5-  
PFNA","93.6","%R","","-99","NA","","IS","93.6","","-99","NA","YES","100","","0.250","0.001",  
"-99",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","13C2-PFDA","13C2-  
PFDA","81.2","%R","","-99","NA","","IS","81.2","","-99","NA","YES","100","","0.250","0.001",  
"-99",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","d3-MeFOSAA","d3-  
MeFOSAA","93.0","%R","","-99","NA","","IS","93.0","","-99","NA","YES","100","","0.250","0.001",  
"-99",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","13C2-PFUnA","13C2-  
PFUnA","74.2","%R","","-99","NA","","IS","74.2","","-99","NA","YES","100","","0.250","0.001",  
"-99",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","d5-EtFOSAA","d5-  
EtFOSAA","71.1","%R","","-99","NA","","IS","71.1","","-99","NA","YES","100","","0.250","0.001",  
"-99",  
""  
"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","13C2-PFDoA","13C2-  
PFDoA","79.3","%R","","-99","NA","","IS","79.3","","-99","NA","YES","100","","0.250","0.001",  
"-99",  
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"B7L0101-BS1","Modified EPA Method 537","Initial","B7L0101-BS1","Vista","13C2-PFTeDA","13C2-

PFTeDA", "92.4", "%R", "", "-99", "NA", "", "IS", "92.4", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "375-73-5", "PFBS", "37.3", "ng/L", "", "0.895", "LOD", "", "TRG", "93.2", "19.3", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "307-24-4", "PFHxA", "33.9", "ng/L", "", "1.09", "LOD", "", "TRG", "84.8", "9.83", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "375-85-9", "PFHpA", "33.6", "ng/L", "", "0.296", "LOD", "", "TRG", "84.0", "17.8", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "355-46-4", "PFHxS", "39.3", "ng/L", "", "0.474", "LOD", "", "TRG", "98.3", "16.4", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "335-67-1", "PFOA", "36.4", "ng/L", "", "0.326", "LOD", "", "TRG", "91.1", "9.93", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "1763-23-1", "PFOS", "40.0", "ng/L", "", "0.404", "LOD", "", "TRG", "99.9", "8.71", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "375-95-1", "PFNA", "38.2", "ng/L", "", "0.405", "LOD", "", "TRG", "95.5", "9.94", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "335-76-2", "PFDA", "34.1", "ng/L", "", "0.745", "LOD", "", "TRG", "85.4", "39.4", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "2355-31-9", "MeFOSAA", "28.1", "ng/L", "", "0.825", "LOD", "", "TRG", "70.4", "25.6", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "2058-94-8", "PFUnA", "38.6", "ng/L", "", "0.525", "LOD", "", "TRG", "96.6", "5.10", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "2991-50-6", "EtFOSAA", "29.8", "ng/L", "", "0.685", "LOD", "", "TRG", "74.6", "38.9", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "307-55-1", "PFDoA", "44.9", "ng/L", "", "0.396", "LOD", "", "TRG", "112", "20.8", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "72629-94-8", "PFTeDA", "40.8", "ng/L", "", "0.247", "LOD", "", "TRG", "102", "22.0", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "376-06-7", "PFTeDA", "36.1", "ng/L", "", "0.378", "LOD", "", "TRG", "90.2", "3.46", "4.00", "LOQ", "YES", "40.0", "", "0.250", "0.001", "2.50", ""  
"B7L0101-BSD1", "Modified EPA Method 537", "Initial", "B7L0101-BSD1", "Vista", "13C3-PFBS", "13C3-PFBS", "123", "%R", "", "-99", "NA", "", "IS", "123", "", "-99", "NA", "YES", "100", "", "0.250", "0.001", "-99", ""  
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PFNA","104","%R","",-99,"NA","","IS","104","",-99,"NA","YES","100","","0.250","0.001","-99",""  
"B7L0101-BSD1","Modified EPA Method 537","Initial","B7L0101-BSD1","Vista","13C2-PFDA","13C2-  
PFDA","88.3","%R","",-99,"NA","","IS","88.3","",-99,"NA","YES","100","","0.250","0.001","-99",""  
"B7L0101-BSD1","Modified EPA Method 537","Initial","B7L0101-BSD1","Vista","d3-MeFOSAA","d3-  
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00:00","100","B7L0101","B7L0101","NA","S8A0042","1701851","12/05/2017 11:15","01/01/1900 00:00",""  
"112G08005-WE05","112G08005-WE05","FT-PZ-455S-20171202","12/02/2017 10:36","AQ","1701851-  
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07","NM","","0.60","Modified EPA Method 537","METHOD","Initial","12/14/2017 14:00","01/16/2018  
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**TETRA TECH****INTERNAL CORRESPONDENCE**

**TO:** K. FRANCISCO  
**DATE:** MARCH 16, 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) 1701851

**SAMPLES:** 7/Groundwater  
FT-PZ-453S-20171202 FT-PZ-455I-20171202  
FT-PZ-455S-20171202 FT-PZ-456I-20171204  
FT-PZ-456S-20171204 FT-PZ-462I-20171202  
FT-PZ-462S-20171202  
2/Field Reagent Blank (FRB)  
FT-PZ-453S-FRB-20171202 FT-PZ-456I-FRB-20171204

**Overview**

The sample set for NWIRP Calverton, SDG 1701851 consisted of seven (7) aqueous environmental samples and two (2) FRB samples. All samples were analyzed for polyfluoroalkyl substances (PFAS). No field duplicate pairs were included in this SDG.

The samples were collected by Tetra Tech, Inc. on December 2 and 4, 2017 and analyzed by Vista Analytical Laboratory. All analyses were conducted in accordance with EPA Method 537 Modified analytical and reporting protocols. The data contained in this SDG was validated with regard to the following parameters:

- \*      •      Data completeness
- Hold times/Sample Preservation
- \*      •      LC/MS/MS System Tuning and Performance
- \*      •      Ion Transition Check
- Initial/Continuing Calibrations
- \*      •      Laboratory Method Blank Results
- \*      •      Field Reagent Blank Results
- \*      •      Extraction Internal Standard Recoveries
- Injection Internal Standard Recoveries
- Laboratory Control Sample / Laboratory Control Sample Duplicate Recoveries
- \*      •      Ongoing Precision Recovery (OPR) 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**

The 28 day hold time from extraction to analyses was exceeded by one to five days for all samples. The detected and nondetected results reported in the affected samples were qualified as estimated (J) and (UJ), respectively.

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 LOD.

**Additional Comments**

It was noted by the laboratory that the original analyses of all samples except FT-PZ-462I-20171202 had one or more injected internal standards outside quality control limits. The laboratory re-injected the samples and all samples met acceptance criteria except for sample FT-PZ-456I-FRB-20171204 which contained one standard (13C9-PFHNA) with a low recovery ( $40\% < x < 50\%$ ). All re-injected results are reported. No validation action was required as the injected internal standard does not affect sample quantitation and all extraction internal standards satisfied recovery limits.

The laboratory control sample / laboratory control sample duplicate (LCS/LCSD) relative percent differences (RPDs) for perfluorodecanoic acid (PFDA) and N-ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) were outside the quality control limits. No validation actions were required as all sample results were nondetects.

The continuing calibration performed on 01/16/2018 @ 5:00 had a percent recovery for perfluorododecanoic acid (PFDoA) which exceeded the 130% laboratory quality control limit. Samples FT-PZ-453S-20171202, FT-PZ-453S-FRB-20171202, FT-PZ-455I-20171202, FT-PZ-455S-20171202, FT-PZ-456I-20171204, FT-PZ-456I-FRB-20171204 and FT-PZ-456S-20171204 were affected. No validation actions were warranted as the aforementioned sample results were nondetects.

**Executive Summary**

**Laboratory Performance Issues:** Several hold times were exceeded due to sample re-analyses.

**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.



for

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



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

TO: K. FRANCISCO  
SDG: 1701851

PAGE 3

Attachments:

Appendix A - Qualified Analytical Results  
Appendix B – Results as Reported by the Laboratory  
Appendix C – Support Documentation

**APPENDIX A**

**QUALIFIED ANALYTICAL RESULTS**

**APPENDIX B**

**RESULTS AS REPORTED BY THE LABORATORY**

**APPENDIX C**

**SUPPORT DOCUMENTATION**



**TO:** K. FRANCISCO **DATE:** MARCH 12, 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) 1701851

**SAMPLES:** 7/Groundwater  
FT-PZ-453S-20171202 FT-PZ-455I-20171202  
FT-PZ-455S-20171202 FT-PZ-456I-20171204  
FT-PZ-456S-20171204 FT-PZ-462I-20171202  
FT-PZ-462S-20171202

1/Field Reagent Blank (FRB)  
FT-PZ-453S-FRB-20171202 FT-PZ-456I-FRB-20171204

**Overview**

The sample set for NWIRP Calverton, SDG 1701851 consisted of seven (7) aqueous environmental samples and two (2) FRB samples. All samples were analyzed for polyfluoroalkyl substances (PFAS). No field duplicate pairs were included in this SDG.

The samples were collected by Tetra Tech, Inc. on December 2 and 4, 2017 and analyzed by Vista Analytical Laboratory. All analyses were conducted in accordance with EPA Method 537 Modified analytical and reporting protocols. The data contained in this SDG was validated with regard to the following parameters:

- \* ● Data completeness
- Hold times/Sample Preservation
- \* ● LC/MS/MS System Tuning and Performance
- Initial/Continuing Calibrations
- \* ● Laboratory Method Blank Results
- \* ● Field Reagent Blank Results
- \* ● Isotope Dilution Analyte Surrogate Recoveries
- Laboratory Control Sample / Laboratory Control Sample Duplicate Recoveries
- \* ● Ongoing Precision Recovery (OPR) 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**

The 28 day hold time from extraction to analyses was exceeded by one to five days for all samples. The detected and nondetected results reported in the affected samples were qualified as estimated (J) and (UJ), respectively.

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 LOD.

## **Additional Comments**

It was noted by the laboratory that the original analyses of all samples except FT-PZ-462I-20171202 had one or more injected internal standards outside quality control limits. The laboratory re-injected the samples with similar results. All re-injected results are reported. No validation action was required as the injected internal standard does not affect sample results.

The laboratory control sample / laboratory control sample duplicate (LCS/LCSD) relative percent differences (RPDs) for perfluorodecanoic acid (PFDA) and n-ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) were outside the quality control limits. No validation actions were required as all sample results were nondetects.

The continuing calibration performed on 01/16/2018 @ 5:00 had a percent recovery for perfluorododecanoic acid (PFDoA) which exceeded the 130% laboratory quality control limit. Samples FT-PZ-453S-20171202, FT-PZ-453S-FRB-20171202, FT-PZ-455I-20171202, FT-PZ-455S-20171202, FT-PZ-456I-20171204, FT-PZ-456I-FRB-20171204 and FT-PZ-456S-20171204 were affected. No validation actions were warranted as the aforementioned sample results were nondetects.

## **Executive Summary**

**Laboratory Performance Issues:** Several hold times were exceeded.

**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" (2013). The text of this report has been formulated to address only those areas affecting data quality.



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

---

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

TO: K. FRANCISCO  
SDG: 1701851

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.

<b>U</b>	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
<b>J</b>	The analyte was positively identified and 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).
<b>J+</b>	The result is an estimated quantity, but the result may be biased high.
<b>J-</b>	The result is an estimated quantity, but the result may be biased low.
<b>UJ</b>	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
<b>R</b>	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.
<b>UR</b>	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.

**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	NSAMPLE	FT-PZ-453S-20171202			FT-PZ-453S-FRB-20171202			FT-PZ-455I-20171202			FT-PZ-455S-20171202		
<b>SDG: 1701851</b>	LAB_ID	1701851-05			1701851-06			1701851-04			1701851-03		
<b>FRACTION: PFAS</b>	SAMP_DATE	12/2/2017			12/2/2017			12/2/2017			12/2/2017		
<b>MEDIA: WATER</b>	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-ETHYL PERFLUOROOCANE SULFONAMIDOACETIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	
N-METHYL PERFLUOROOCANE SULFONAMIDOACETIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	
PENTADEC AFLUOROOCANOIC ACID	0.693	J	HP	2.39	UJ	H	2.44	UJ	H	0.345	J	HP	
PERFLUOROBUTANESULFONIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	
PERFLUORODECANOIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	
PERFLUORODODECANOIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	
PERFLUOROHEPTANOIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	
PERFLUOROHEXANESULFONIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	
PERFLUOROHEXANOIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	
PERFLUORONONANOIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	
PERFLUOROOCANE SULFONIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	
PERFLUOROTETRADECANOIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	
PERFLUOROTRIDECANOIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	
PERFLUOROUNDECANOIC ACID	2.68	UJ	H	2.39	UJ	H	2.44	UJ	H	2.37	UJ	H	

<b>PROJ_NO: 08005-WE05</b> <b>SDG: 1701851</b> <b>FRACTION: PFAS</b> <b>MEDIA: WATER</b>	NSAMPLE	FT-PZ-456I-20171204			FT-PZ-456I-FRB-20171204			FT-PZ-456S-20171204			FT-PZ-462I-20171202		
	LAB_ID	1701851-08			1701851-07			1701851-09			1701851-02		
	SAMP_DATE	12/4/2017			12/4/2017			12/4/2017			12/2/2017		
	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-ETHYL PERFLUOROOCANE SULFONAMIDOACETIC ACID	2.4	UJ	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
N-METHYL PERFLUOROOCANE SULFONAMIDOACETIC ACID	2.4	UJ	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
PENTADEC AFLUOROOCANOIC ACID	13.3	J	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
PERFLUOROBUTANESULFONIC ACID	2.4	UJ	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
PERFLUORODECANOIC ACID	2.4	UJ	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
PERFLUORODODECANOIC ACID	2.4	UJ	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
PERFLUOROHEPTANOIC ACID	4.46	J	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
PERFLUOROHEXANESULFONIC ACID	2.4	UJ	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
PERFLUOROHEXANOIC ACID	7.07	J	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
PERFLUORONONANOIC ACID	7.17	J	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
PERFLUOROOCANE SULFONIC ACID	2.4	UJ	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
PERFLUOROTETRADECANOIC ACID	2.4	UJ	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
PERFLUOROTRIDECANOIC ACID	2.4	UJ	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	
PERFLUOROUNDECANOIC ACID	2.4	UJ	H	2.46	UJ	H	2.41	UJ	H	2.49	UJ	H	

<b>PROJ_NO: 08005-WE05</b> <b>SDG: 1701851</b> <b>FRACTION: PFAS</b> <b>MEDIA: WATER</b>	NSAMPLE	FT-PZ-462S-20171202		
	LAB_ID	1701851-01		
	SAMP_DATE	12/2/2017		
	QC_TYPE	NM		
	UNITS	NG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER	RESULT	VQL	QLCD	
N-ETHYL PERFLUOROOCANE SULFONAMIDOACETIC ACID	2.8	UJ	H	
N-METHYL PERFLUOROOCANE SULFONAMIDOACETIC ACID	2.8	UJ	H	
PENTADECYLAFLUOROOCANOIC ACID	1.55	J	HP	
PERFLUOROBUTANESULFONIC ACID	2.8	UJ	H	
PERFLUORODECANOIC ACID	2.8	UJ	H	
PERFLUORODODECANOIC ACID	2.8	UJ	H	
PERFLUOROHEPTANOIC ACID	2.8	UJ	H	
PERFLUOROHEXANESULFONIC ACID	2.8	UJ	H	
PERFLUOROHEXANOIC ACID	2.8	UJ	H	
PERFLUORONONANOIC ACID	0.733	J	HP	
PERFLUOROOCANE SULFONIC ACID	2.8	UJ	H	
PERFLUOROTETRADECANOIC ACID	2.8	UJ	H	
PERFLUOROTRIDECANOIC ACID	2.8	UJ	H	
PERFLUOROUNDECANOIC ACID	2.8	UJ	H	

**Appendix B**

Results as Reported by the Laboratory

**Sample ID: FT-PZ-462S-20171202**

**Modified EPA Method 537**

Client Data					Laboratory Data						
Name:	Tetra Tech		Matrix:	Groundwater	Lab Sample:	1701851-01	Column:	BEH C18			
Project:	NWIRP Calverton PFAS Investigation 112G08005-W				Date Collected:	02-Dec-17 08:50		Date Received:	05-Dec-17 11:15		
SDG:	WE05										

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	1.00	2.80	4.48		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
PFHxA	ND	1.22	2.80	4.48		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
PFHpA	ND	0.331	2.80	4.48		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
PFHxS	ND	0.530	2.80	4.48		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
PFOA	1.55	0.364	2.80	4.48	J	B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
PFOS	ND	0.452	2.80	4.48		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
PFNA	0.733	0.453	2.80	4.48	J	B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
PFDA	ND	0.834	2.80	4.48		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
MeFOSAA	ND	0.923	2.80	4.48		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
PFUnA	ND	0.588	2.80	4.48		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
EtFOSAA	ND	0.767	2.80	4.48		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
PFDaA	ND	0.443	2.80	4.48		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
PFTTrDA	ND	0.276	2.80	4.48		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
PFTeDA	ND	0.423	2.80	4.48		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	99.3	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
13C2-PFHxA	IS	101	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
13C4-PFHpA	IS	96.6	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
18O2-PFHxS	IS	113	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
13C2-PFOA	IS	105	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
13C8-PFOS	IS	97.1	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
13C5-PFNA	IS	89.3	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
13C2-PFDA	IS	67.9	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
d3-MeFOSAA	IS	100	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
13C2-PFUnA	IS	94.0	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
d5-EtFOSAA	IS	77.0	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
13C2-PFDaA	IS	70.1	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1
13C2-PFTeDA	IS	62.6	50 - 150		B7L0101	14-Dec-17	0.223 L	14-Jan-18 18:36	1

DL - Detection Limit

LOD - Limit of Detection  
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit  
Results reported to the DL.

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

Sample ID: FT-PZ-462I-20171202						Modified EPA Method 537					
Client Data					Laboratory Data						
Name:	Tetra Tech		Matrix:	Groundwater		Lab Sample:	1701851-02		Column:	BEH C18	
Project:	NWIRP Calverton PFAS Investigation 112G08005-W					Date Collected:	02-Dec-17 08:52				
SDG:	WE05					Date Received:	05-Dec-17 11:15				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBS	ND	0.890	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
PFHxA	ND	1.08	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
PFHpA	ND	0.294	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
PFHxS	ND	0.471	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
PFOA	ND	0.324	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
PFOS	ND	0.401	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
PFNA	ND	0.403	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
PFDA	ND	0.741	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
MeFOSAA	ND	0.821	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
PFUnA	ND	0.522	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
EtFOSAA	ND	0.681	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
PFDaA	ND	0.394	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
PFTrDA	ND	0.246	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
PFTeDA	ND	0.376	2.49	3.98		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
13C3-PFBS	IS	118	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		
13C2-PFHxA	IS	115	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		
13C4-PFHpA	IS	118	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		
18O2-PFHxS	IS	113	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		
13C2-PFOA	IS	108	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		
13C8-PFOS	IS	122	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		
13C5-PFNA	IS	97.5	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		
13C2-PFDA	IS	95.5	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		
d3-MeFOSAA	IS	74.9	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		
13C2-PFUnA	IS	81.2	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		
d5-EtFOSAA	IS	81.0	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		
13C2-PFDaA	IS	71.3	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		
13C2-PFTeDA	IS	73.0	50 - 150		B7L0101	14-Dec-17	0.251 L	12-Jan-18 05:19	1		

DL - Detection Limit

LOD - Limit of Detection  
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit  
Results reported to the DL.

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

**Sample ID: FT-PZ-455S-20171202**

**Modified EPA Method 537**

Client Data					Laboratory Data					
Name:	Tetra Tech	Matrix:	Groundwater		Lab Sample:	1701851-03	Column:	BEH C18		
Project:	NWIRP Calverton PFAS Investigation 112G08005-W				Date Collected:	02-Dec-17 10:36				
SDG:	WE05				Date Received:	05-Dec-17 11:15				

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.848	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
PFHxA	ND	1.03	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
PFHpA	ND	0.280	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
PFHxS	ND	0.449	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
PFOA	0.345	0.308	2.37	3.79	J	B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
PFOS	ND	0.382	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
PFNA	ND	0.384	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
PFDA	ND	0.706	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
MeFOSAA	ND	0.782	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
PFUnA	ND	0.498	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
EtFOSAA	ND	0.649	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
PFDaA	ND	0.375	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
PFTrDA	ND	0.234	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
PFTeDA	ND	0.358	2.37	3.79		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	134	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
13C2-PFHxA	IS	101	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
13C4-PFHpA	IS	111	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
18O2-PFHxS	IS	101	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
13C2-PFOA	IS	104	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
13C8-PFOS	IS	124	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
13C5-PFNA	IS	88.0	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
13C2-PFDA	IS	81.0	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
d3-MeFOSAA	IS	93.8	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
13C2-PFUnA	IS	96.1	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
d5-EtFOSAA	IS	91.8	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
13C2-PFDaA	IS	83.1	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1
13C2-PFTeDA	IS	78.6	50 - 150		B7L0101	14-Dec-17	0.264 L	16-Jan-18 02:20	1

DL - Detection Limit

LOD - Limit of Detection  
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit  
Results reported to the DL.

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

Sample ID: FT-PZ-455I-20171202						Modified EPA Method 537					
Client Data					Laboratory Data						
Name:	Tetra Tech		Matrix:	Groundwater		Lab Sample:	1701851-04		Column:	BEH C18	
Project:	NWIRP Calverton PFAS Investigation 112G08005-W					Date Collected:	02-Dec-17 10:45				
SDG:	WE05					Date Received:	05-Dec-17 11:15				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBS	ND	0.873	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
PFHxA	ND	1.06	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
PFHpA	ND	0.288	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
PFHxS	ND	0.462	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
PFOA	ND	0.317	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
PFOS	ND	0.393	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
PFNA	ND	0.395	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
PFDA	ND	0.726	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
MeFOSAA	ND	0.805	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
PFUnA	ND	0.512	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
EtFOSAA	ND	0.668	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
PFDaA	ND	0.386	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
PFTTrDA	ND	0.241	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
PFTeDA	ND	0.368	2.44	3.90		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
13C3-PFBS	IS	141	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		
13C2-PFHxA	IS	113	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		
13C4-PFHpA	IS	108	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		
18O2-PFHxS	IS	117	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		
13C2-PFOA	IS	116	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		
13C8-PFOS	IS	102	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		
13C5-PFNA	IS	99.4	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		
13C2-PFDA	IS	100	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		
d3-MeFOSAA	IS	88.1	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		
13C2-PFUnA	IS	76.7	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		
d5-EtFOSAA	IS	81.5	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		
13C2-PFDaA	IS	83.7	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		
13C2-PFTeDA	IS	94.8	50 - 150		B7L0101	14-Dec-17	0.256 L	16-Jan-18 02:31	1		

DL - Detection Limit

LOD - Limit of Detection  
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit  
Results reported to the DL.

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

**Sample ID: FT-PZ-453S-20171202**

**Modified EPA Method 537**

Client Data					Laboratory Data				
Name:	Tetra Tech		Matrix:	Groundwater	Lab Sample:	1701851-05	Column:	BEH C18	
Project:	NWIRP Calverton PFAS Investigation 112G08005-W				Date Collected:	02-Dec-17 12:26			
SDG:	WE05				Date Received:	05-Dec-17 11:15			

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.961	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
PFHxA	ND	1.17	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
PFHpA	ND	0.317	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
PFHxS	ND	0.508	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
PFOA	0.693	0.349	2.68	4.29	J	B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
PFOS	ND	0.433	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
PFNA	ND	0.435	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
PFDA	ND	0.800	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
MeFOSAA	ND	0.886	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
PFUnA	ND	0.564	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
EtFOSAA	ND	0.735	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
PFDaA	ND	0.425	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
PFTeDA	ND	0.265	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
PFTeDA	ND	0.405	2.68	4.29		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	122	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
13C2-PFHxA	IS	112	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
13C4-PFHpA	IS	114	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
18O2-PFHxS	IS	105	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
13C2-PFOA	IS	118	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
13C8-PFOS	IS	122	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
13C5-PFNA	IS	117	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
13C2-PFDA	IS	99.2	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
d3-MeFOSAA	IS	117	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
13C2-PFUnA	IS	135	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
d5-EtFOSAA	IS	105	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
13C2-PFDaA	IS	112	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1
13C2-PFTeDA	IS	129	50 - 150		B7L0101	14-Dec-17	0.233 L	16-Jan-18 02:43	1

DL - Detection Limit

LOD - Limit of Detection  
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit  
Results reported to the DL.

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

**Sample ID: FT-PZ-453S-FRB-20171202**

**Modified EPA Method 537**

Client Data					Laboratory Data				
Name:	Tetra Tech	Matrix:	Groundwater		Lab Sample:	1701851-06	Column:	BEH C18	
Project:	NWIRP Calverton PFAS Investigation 112G08005-W				Date Collected:	02-Dec-17 12:26			
SDG:	WE05				Date Received:	05-Dec-17 11:15			

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.855	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
PFHxA	ND	1.04	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
PFHpA	ND	0.282	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
PFHxS	ND	0.453	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
PFOA	ND	0.311	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
PFOS	ND	0.386	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
PFNA	ND	0.387	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
PFDA	ND	0.712	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
MeFOSAA	ND	0.788	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
PFUnA	ND	0.502	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
EtFOSAA	ND	0.655	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
PFDaA	ND	0.378	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
PFTrDA	ND	0.236	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
PFTeDA	ND	0.361	2.39	3.82		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	125	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
13C2-PFHxA	IS	112	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
13C4-PFHpA	IS	116	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
18O2-PFHxS	IS	114	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
13C2-PFOA	IS	105	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
13C8-PFOS	IS	124	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
13C5-PFNA	IS	102	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
13C2-PFDA	IS	82.0	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
d3-MeFOSAA	IS	96.3	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
13C2-PFUnA	IS	72.7	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
d5-EtFOSAA	IS	77.5	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
13C2-PFDaA	IS	90.3	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1
13C2-PFTeDA	IS	98.9	50 - 150		B7L0101	14-Dec-17	0.262 L	16-Jan-18 02:54	1

DL - Detection Limit

LOD - Limit of Detection  
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit  
Results reported to the DL.

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

**Sample ID: FT-PZ-456I-FRB-20171204**

**Modified EPA Method 537**

Client Data					Laboratory Data					
Name:	Tetra Tech	Matrix:	Groundwater		Lab Sample:	1701851-07	Column:	BEH C18		
Project:	NWIRP Calverton PFAS Investigation 112G08005-W				Date Collected:	04-Dec-17 08:50				
SDG:	WE05				Date Received:	05-Dec-17 11:15				

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.882	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
PFHxA	ND	1.07	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
PFHpA	ND	0.291	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
PFHxS	ND	0.467	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
PFOA	ND	0.321	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
PFOS	ND	0.398	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
PFNA	ND	0.399	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
PFDA	ND	0.734	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
MeFOSAA	ND	0.813	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
PFUnA	ND	0.518	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
EtFOSAA	ND	0.675	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
PFDaA	ND	0.390	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
PFTeDA	ND	0.243	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
PFTeDA	ND	0.372	2.46	3.94		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	118	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
13C2-PFHxA	IS	111	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
13C4-PFHpA	IS	106	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
18O2-PFHxS	IS	94.5	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
13C2-PFOA	IS	106	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
13C8-PFOS	IS	114	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
13C5-PFNA	IS	113	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
13C2-PFDA	IS	107	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
d3-MeFOSAA	IS	81.9	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
13C2-PFUnA	IS	103	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
d5-EtFOSAA	IS	88.0	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
13C2-PFDaA	IS	87.8	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1
13C2-PFTeDA	IS	91.1	50 - 150		B7L0101	14-Dec-17	0.254 L	16-Jan-18 03:06	1

DL - Detection Limit

LOD - Limit of Detection  
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit  
Results reported to the DL.

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

Sample ID: FT-PZ-456I-20171204					Modified EPA Method 537						
Client Data					Laboratory Data						
Name:	Tetra Tech		Matrix:	Groundwater		Lab Sample:	1701851-08		Column:	BEH C18	
Project:	NWIRP Calverton PFAS Investigation 112G08005-W					Date Collected:	04-Dec-17 08:50				
SDG:	WE05					Date Received:	05-Dec-17 11:15				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBS	ND	0.859	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
PFHxA	7.07	1.05	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
PFHpA	4.46	0.284	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
PFHxS	ND	0.455	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
PFOA	13.3	0.312	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
PFOS	ND	0.387	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
PFNA	7.17	0.389	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
PFDA	ND	0.715	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
MeFOSAA	ND	0.792	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
PFUnA	ND	0.504	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
EtFOSAA	ND	0.658	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
PFDaA	ND	0.380	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
PFTrDA	ND	0.237	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
PFTeDA	ND	0.362	2.40	3.84		B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C3-PFBS	IS	124	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
13C2-PFHxA	IS	110	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
13C4-PFHpA	IS	112	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
18O2-PFHxS	IS	98.5	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
13C2-PFOA	IS	97.7	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
13C8-PFOS	IS	107	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
13C5-PFNA	IS	86.3	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
13C2-PFDA	IS	109	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
d3-MeFOSAA	IS	93.3	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
13C2-PFUnA	IS	111	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
d5-EtFOSAA	IS	107	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
13C2-PFDaA	IS	104	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	
13C2-PFTeDA	IS	102	50 - 150			B7L0101	14-Dec-17	0.260 L	16-Jan-18 03:17	1	

DL - Detection Limit

LOD - Limit of Detection  
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit  
Results reported to the DL.

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

**Sample ID: FT-PZ-456S-20171204**

**Modified EPA Method 537**

Client Data					Laboratory Data					
Name:	Tetra Tech		Matrix:	Groundwater	Lab Sample:	1701851-09		Column:	BEH C18	
Project:	NWIRP Calverton PFAS Investigation 112G08005-W				Date Collected:	04-Dec-17 08:55				
SDG:	WE05				Date Received:	05-Dec-17 11:15				

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.864	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
PFHxA	ND	1.05	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
PFHpA	ND	0.285	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
PFHxS	ND	0.457	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
PFOA	ND	0.314	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
PFOS	ND	0.390	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
PFNA	ND	0.391	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
PFDA	ND	0.719	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
MeFOSAA	ND	0.796	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
PFUnA	ND	0.507	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
EtFOSAA	ND	0.661	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
PFDaA	ND	0.382	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
PFTrDA	ND	0.238	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
PFTeDA	ND	0.364	2.41	3.86		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	146	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
13C2-PFHxA	IS	120	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
13C4-PFHpA	IS	122	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
18O2-PFHxS	IS	114	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
13C2-PFOA	IS	112	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
13C8-PFOS	IS	112	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
13C5-PFNA	IS	108	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
13C2-PFDA	IS	92.7	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
d3-MeFOSAA	IS	81.1	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
13C2-PFUnA	IS	88.0	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
d5-EtFOSAA	IS	84.1	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
13C2-PFDaA	IS	71.3	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1
13C2-PFTeDA	IS	80.1	50 - 150		B7L0101	14-Dec-17	0.259 L	16-Jan-18 03:29	1

DL - Detection Limit

LOD - Limit of Detection  
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit  
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS 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 #: 1701851 Temp: 0.6 °C  
 Storage ID: WR-2 Storage Secured: Yes  No

Project ID: 12G08005-WE05 PO#: \_\_\_\_\_ Sampler: Jacob Birkett  
Lauren Donston  
Beau Benfield (name)

TAT (check one):  21 days  
 14 days  7 days Rush (surcharge may apply) Specify: \_\_\_\_\_

Invoice to: Name \_\_\_\_\_ Company Tetra Tech Address 5700 Lake Wright Dr, Suite 102 City Norfolk State VA Ph# 757-466-4902 Fax# \_\_\_\_\_

Relinquished by (printed name and signature) Jacob Birkett Date 12-4-17 Time 1600 Received by (printed name and signature) FedEx Date \_\_\_\_\_ Time \_\_\_\_\_

Relinquished by (printed name and signature) FedEx Date \_\_\_\_\_ Time \_\_\_\_\_ Received by (printed name and signature) Marissa Sparks Date 12/05/17 Time 1146

SHIP TO: Vista Analytical Laboratory  
 1104 Windfield Way  
 El Dorado Hills, CA 95762  
 (916) 673-1520 \* Fax (916) 673-0106

Method of Shipment: FedEx

Add Analysis(es) Requested

Container(s)

Tracking No.: 816291070477

ATTN: \_\_\_\_\_

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	Add Analysis(es) Requested				Other Please List Below	Comments		
							PFOA/PFOS	UCMR3 PFAS List 6	337 List 14	Mod. EPA Method 837		EPA Method 537 (DW only)		
FT-PZ-462S-20171202	12-2-17	0850	FT-PZ-462S	2	P	AQ								
FT-PZ-462I-20171202	12-2-17	0852	462I	2	P	AQ								
FT-PZ-455S-20171202	12-2-17	1036	455S	2	P	AQ								
FT-PZ-455I-20171202	12-2-17	1045	455I	2	P	AQ								
FT-PZ-453S-20171202	12-2-17	1226	453S	2	P	AQ								
FT-PZ-453S-FRB-20171202	12-2-17	1226	453S	2	P	AQ								Field Reagent Blank
FT-PZ-456I-FRB-20171204	12-4-17	0850	456I	2	P	QA								Field Reagent Blank
FT-PZ-456I-20171204	12-4-17	0850	456I	2	P	AQ								
FT-PZ-456S-20171204	12-4-17	0855	456S	2	P	AQ								

Special Instructions/Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
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SEND DOCUMENTATION AND RESULTS TO:

Name: Kristi Francisco  
 Company: Tetra Tech  
 Address: 5700 Lake Wright Dr, Suite 102  
 City: Norfolk State: VA Zip: 23502  
 Phone: 757-466-4902 Fax: \_\_\_\_\_  
 Email: Kristi.Francisco@tetra.tech.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: \_\_\_\_\_

**SDG Number WE05**

**Vista Work Order No. 1701851**

**Case Narrative**

**Sample Condition on Receipt:**

Nine groundwater 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.

**Analytical Notes:**

**Modified EPA Method 537**

Samples "FT-PZ-462S-20171202" and "FT-PZ-453S-20171202" contained particulate and were centrifuged prior to extraction.

The aqueous samples were extracted and analyzed for a selected list of PFAS using Modified EPA Method 537.

**Holding Times**

The samples were extracted and analyzed within the method hold times.

**Quality Control**

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

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 of the LOQ concentrations. The LCS/LCSD recoveries were within the acceptance criteria.

The extracts of all samples except "FT-PZ-462I-20171202" and the LCSD were re-injected because one or more Injection Internal Standard Analyte response areas were outside of criteria. The results were similar in the second injection. The results from the re-injections have been reported. The raw data from the original analyses are included in the report.

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

## DATA QUALIFIERS & ABBREVIATIONS

<b>B</b>	<b>This compound was also detected in the method blank.</b>
<b>D</b>	<b>Dilution</b>
<b>E</b>	<b>The associated compound concentration exceeded the calibration range of the instrument.</b>
<b>H</b>	<b>Recovery and/or RPD was outside laboratory acceptance limits.</b>
<b>I</b>	<b>Chemical Interference</b>
<b>J</b>	<b>The amount detected is below the Reporting Limit/LOQ.</b>
<b>M</b>	<b>Estimated Maximum Possible Concentration. (CA Region 2 projects only)</b>
<b>*</b>	<b>See Cover Letter</b>
<b>Conc.</b>	<b>Concentration</b>
<b>NA</b>	<b>Not applicable</b>
<b>ND</b>	<b>Not Detected</b>
<b>TEQ</b>	<b>Toxic Equivalency</b>
<b>U</b>	<b>Not Detected (specific projects only)</b>

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Sample ID: Method Blank						Modified EPA Method 537					
Client Data					Laboratory Data						
Name:	Tetra Tech		Matrix:	Aqueous		Lab Sample:	B7L0101-BLK1		Column:	BEH C18	
Project:	NWIRP Calverton PFAS Investigation 112G08005-W										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBS	ND	0.895	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
PFHxA	ND	1.09	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
PFHpA	ND	0.296	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
PFHxS	ND	0.474	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
PFOA	ND	0.326	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
PFOS	ND	0.404	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
PFNA	ND	0.405	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
PFDA	ND	0.745	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
MeFOSAA	ND	0.825	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
PFUnA	ND	0.525	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
EtFOSAA	ND	0.685	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
PFDaA	ND	0.396	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
PFTrDA	ND	0.247	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
PFTeDA	ND	0.378	2.50	4.00		B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C3-PFBS	IS	134	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
13C2-PFHxA	IS	134	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
13C4-PFHpA	IS	106	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
18O2-PFHxS	IS	112	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
13C2-PFOA	IS	98.3	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
13C8-PFOS	IS	93.7	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
13C5-PFNA	IS	93.3	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
13C2-PFDA	IS	92.6	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
d3-MeFOSAA	IS	56.6	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
13C2-PFUnA	IS	71.4	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
d5-EtFOSAA	IS	57.8	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
13C2-PFDaA	IS	69.9	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	
13C2-PFTeDA	IS	96.9	50 - 150			B7L0101	14-Dec-17	0.250 L	14-Jan-18 18:02	1	

DL - Detection Limit

LOD - Limit of Detection

LCL-UCL- Lower control limit - upper control limit

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.

LOQ - Limit of quantitation

Results reported to the DL.

Only the linear isomer is reported for all other analytes.

Sample ID: LCSD										Modified EPA Method 537					
Name: Tetra Tech				Lab Sample: B7L0101-BS1/B7L0101-BSD1				Date Extracted: 14-Dec-17							
Project: NWIRP Calverton PFAS Investigation 112G08005-				QC Batch: B7L0101				Column:		BEH C18					
Matrix: Aqueous				Samp Size: 0.250/0.250 L				rpd used 30%							
Analyte	LCS (ng/L)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBS	45.2	40.0	113		37.3	40.0	93.2	19.3		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
PFHxA	37.4	40.0	93.5		33.9	40.0	84.8	9.83		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
PFHpA	40.2	40.0	100		33.6	40.0	84.0	17.8		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
PFHxS	46.4	40.0	116		39.3	40.0	98.3	16.4		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
PFOA	33.0	40.0	82.5		36.4	40.0	91.1	9.93		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
PFOS	36.6	40.0	91.6		40.0	40.0	99.9	8.71		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
PFNA	34.6	40.0	86.5		38.2	40.0	95.5	9.94		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
PFDA	50.9	40.0	127		34.1	40.0	85.4	39.4		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
MeFOSAA	36.4	40.0	91.0		28.1	40.0	70.4	25.6		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
PFOxA	40.7	40.0	102		38.6	40.0	96.6	5.10		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
EtFOSAA	44.2	40.0	111		29.8	40.0	74.6	38.9		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
PFOA	36.5	40.0	91.2		44.9	40.0	112	20.8		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
PFTTrDA	32.7	40.0	81.7		40.8	40.0	102	22.0		60-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
PFTeDA	37.4	40.0	93.4		36.1	40.0	90.2	3.46		70-130		14-Jan-18 17:39	1	12-Jan-18 04:12	1
Labeled Standards	Type		LCS % Rec	LCS Quals			LCSD % Rec	LCSD Quals	Limits			LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBS	IS		112				123		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1
13C2-PFHxA	IS		94.2				120		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1
13C4-PFHpA	IS		105				115		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1
18O2-PFHxS	IS		104				118		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1
13C2-PFOA	IS		103				112		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1
13C8-PFOS	IS		107				123		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1
13C5-PFNA	IS		93.6				104		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1
13C2-PFDA	IS		81.2				88.3		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1
d3-MeFOSAA	IS		93.0				80.1		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1
13C2-PFOxA	IS		74.2				70.2		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1
d5-EtFOSAA	IS		71.1				81.7		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1
13C2-PFDoA	IS		79.3				70.5		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1
13C2-PFTeDA	IS		92.4				77.3		50-150			14-Jan-18 17:39	1	12-Jan-18 04:12	1

Dataset: U:\Q4.PRO\results\180114M1\180114M1-22.qld

Last Altered: Monday, January 15, 2018 16:04:21 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 15:24:12 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818D.mdb 15 Jan 2018 12:58:53

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-14-18-FULL.cdb 15 Jan 2018 14:59:56

Name: 180114M1\_22, Date: 14-Jan-2018, Time: 17:39:19, ID: B7L0101-BS1 OPR 0.25, Description: OPR

used 70-130

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3 PFBS	299.0 > 79.7	1.70e3	9.84e2	0.250		2.60	2.50	21.6	45.2469	113.1
2	4 PFHxA	313.2 > 268.9	7.46e3	2.18e3	0.250		3.00	2.93	17.1	37.4119	93.5
3	5 PFHpA	363.0 > 318.9	6.48e3	6.23e3	0.250		3.54	3.45	13.0	40.1564	100.4
4	6 L-PFHxS	398.9 > 79.6	1.13e3	8.58e2	0.250		3.68	3.59	16.5	38.6165	96.5
5	9 L-PFOA	413 > 368.7	7.74e3	9.69e3	0.250		4.07	3.97	9.99	32.9917	82.5
6	12 PFNA	463.0 > 418.8	7.92e3	7.67e3	0.250		4.54	4.44	12.9	34.5837	86.5
7	14 L-PFOS	499 > 79.9	2.04e3	2.34e3	0.250		4.63	4.53	10.9	36.6409	91.6
8	16 PFDA	513 > 468.8	7.74e3	5.71e3	0.250		4.94	4.84	16.9	50.8942	127.2
9	18 N-MeFOSAA	570.1 > 419	2.73e3	1.75e3	0.250		5.10	4.99	19.6	36.3965	91.0
10	19 N-EtFOSAA	584.2 > 419	2.03e3	1.84e3	0.250		5.27	5.18	13.8	44.2203	110.6
11	20 PFUdA	563.0 > 518.9	5.30e3	5.51e3	0.250		5.30	5.19	12.0	40.6734	101.7
12	22 PFDoA	612.9 > 569.0	7.90e3	4.22e3	0.250		5.60	5.50	23.4	36.4670	91.2

Dataset: U:\Q4.PRO\results\180114M1\180114M1-22.qld

Last Altered: Monday, January 15, 2018 16:04:21 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 15:24:21 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818D.mdb 15 Jan 2018 12:58:53  
 Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-14-18-FULL.cdb 15 Jan 2018 14:59:56

Name: 180114M1\_22, Date: 14-Jan-2018, Time: 17:39:19, ID: B7L0101-BS1 OPR 0.25, Description: OPR

#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	24	PFTrDA	662.9 > 618.9	8.73e3	2.21e3	0.250	5.85	5.77	49.4	32.6863	81.7	
2	25	PFTeDA	712.9 > 668.8	4.46e3	2.21e3	0.250	6.10	6.00	25.2	37.3644	93.4	
3	33	13C3-PFBS	302. > 98.8	9.84e2	9.12e3	0.250	0.097	2.60	2.50	1.35	55.8744	111.7
4	34	13C2-PFHxA	315 > 269.8	2.18e3	9.12e3	0.250	0.633	3.00	2.93	2.99	18.8494	94.2
5	35	13C4-PFHpA	367.2 > 321.8	6.23e3	9.12e3	0.250	0.651	3.56	3.46	8.54	52.4882	105.0
6	36	18O2-PFHxS	403.0 > 102.6	8.58e2	2.53e3	0.250	0.326	3.68	3.59	4.23	52.0073	104.0
7	37	13C2-6:2 FTS	429.1 > 408.9	1.77e3	1.04e4	0.250	0.171	4.00	3.88	2.13	50.0579	100.1
8	38	13C2-PFOA	414.9 > 369.7	9.69e3	1.04e4	0.250	0.903	4.07	3.97	11.7	51.5852	103.2
9	39	13C5-PFNA	468.2 > 422.9	7.67e3	9.71e3	0.250	0.844	4.54	4.44	9.88	46.8144	93.6
10	40	13C8-PFOSA	506.1 > 77.7	8.00e2	8.26e3	0.250	0.165	4.61	4.51	1.21	29.2913	58.6
11	41	13C8-PFOS	507.0 > 79.9	2.34e3	2.38e3	0.250	0.920	4.62	4.52	12.3	53.4590	106.9
12	42	13C2-PFDA	515.1 > 469.9	5.71e3	6.74e3	0.250	1.044	4.82	4.84	10.6	40.5772	81.2
13	43	13C2-8:2 FTS	529.1 > 508.7	9.83e2	9.12e3	0.250	0.087	4.89	4.79	1.35	62.2789	124.6
14	44	d3-N-MeFOSAA	573.3 > 419	1.75e3	8.26e3	0.250	0.227	5.08	4.99	2.64	46.5235	93.0
15	45	d5-N-EtFOSAA	589.3 > 419	1.84e3	8.26e3	0.250	0.313	5.27	5.17	2.79	35.5689	71.1
16	46	13C2-PFUdA	565 > 519.8	5.51e3	8.26e3	0.250	0.899	5.28	5.19	8.34	37.0850	74.2
17	47	13C2-PFDoA	615.0 > 569.7	4.22e3	8.26e3	0.250	0.645	5.60	5.50	6.39	39.6532	79.3
18	49	13C2-PFTeDA	714.8 > 669.6	2.21e3	8.26e3	0.250	0.290	6.10	6.00	3.35	46.1849	92.4
19	55	13C5-PFHxA	318 > 272.9	9.12e3	9.12e3	0.250	1.000	3.00	2.93	12.5	50.0000	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.53e3	2.53e3	0.250	1.000	3.68	3.59	12.5	50.0000	100.0
21	57	13C8-PFOA	421.3 > 376	1.04e4	1.04e4	0.250	1.000	4.07	3.96	12.5	50.0000	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.71e3	9.71e3	0.250	1.000	4.54	4.44	12.5	50.0000	100.0
23	59	13C4-PFOS	503 > 79.9	2.38e3	2.38e3	0.250	1.000	4.63	4.53	12.5	50.0000	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.74e3	6.74e3	0.250	1.000	4.94	4.84	12.5	50.0000	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.26e3	8.26e3	0.250	1.000	5.28	5.19	12.5	50.0000	100.0
26	62	Total PFHxS	398.9 > 79.6	1.37e3	8.58e2	0.250		3.50		19.9	46.3681	
27	63	Total PFOA	413 > 368.7	7.74e3	9.69e3	0.250		3.90		9.99	32.9917	
28	64	Total PFOS	499 > 79.9	2.04e3	2.34e3	0.250		4.50		10.9	36.6409	
29	65	Total N-MeFOSAA	570.1 > 419	2.73e3	1.75e3	0.250		5.00		19.6	36.3965	
30	66	Total N-EtFOSAA	584.2 > 419	2.03e3	1.84e3	0.250		5.20		13.8	44.2203	

PREPARATION BENCH SHEET

Matrix: Aqueous

B7L0101

Chemist: KC

Method: 537M PFAS DOD (LOQ as mRL)

Prep Date/Time: 14-Dec-17 10:37

Prepared using: LCMS - SPE Extraction-LCMS

1400  
KC 12/14/17

		Date/Initials: <u>HB 12/14/17</u>			BalanceID: <u>HPMS-8</u>						
Cen	VISTA Sample ID	pH Before	pH After	Chlorine (Cl)	Drops HCl Added	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
<input type="checkbox"/>	B7L0101-BLK1	5	2	0	3	NA	NA	(0.250) ✓	<u>KC GEB 12/14/17</u>	<u>GEB 12/14/17</u>	<u>7/2 GEB 12/14/17</u>
<input type="checkbox"/>	B7L0101-BS1	5	2	0	3	↓	↓	(0.250) ✓	↓	↓	↓
<input type="checkbox"/>	B7L0101-BSD1	5	2	0	3	↓	↓	(0.250) ✓	↓	↓	↓
<input type="checkbox"/>	1701840-04	6	2	0	3	147.98	26.86	0.12110	↓	↓	↓
<input type="checkbox"/>	1701840-05	6	2	0	3	141.97	26.85	0.11512	↓	↓	↓
<input checked="" type="checkbox"/>	1701851-01 (A)	4	2	0	3	<del>254.99</del> 251.09	27.75	0.22334 ✓	↓	↓	↓
<input type="checkbox"/>	1701851-02	4	2	0	3	279.04	27.73	0.25131 ✓	↓	↓	↓
<input type="checkbox"/>	1701851-03	4	2	0	3	291.50	27.70	0.26380 ✓	↓	↓	↓
<input type="checkbox"/>	1701851-04	4	2	0	3	284.07	27.70	0.26637 ✓	↓	↓	↓
<input checked="" type="checkbox"/>	1701851-05	4	2	0	3	260.55	27.70	0.23285 ✓	↓	↓	↓
<input type="checkbox"/>	1701851-06	4	2	0	3	289.33	27.74	0.26159 ✓	↓	↓	↓
<input type="checkbox"/>	1701851-07	4	2	0	3	281.31	27.71	0.25360 ✓	↓	↓	↓
<input type="checkbox"/>	1701851-08	4	2	0	3	298.22	27.81	0.26041 ✓	↓	↓	↓
<input type="checkbox"/>	1701851-09	4	2	0	3	286.71	27.73	0.25899 ✓	↓	↓	↓

IS: <u>17L0402, 10µL (V1)</u>	SPE Chem: <u>STEARA X-AW 33µm 200mg 6mL</u>	Notes: (A) sample still deeply colored after centrifuging. No particulate came out of sample. HB 12/14/17 microcentrifuged sample but no particulate came out
IS SUP: <u>NA</u>	Ele SOLV: <u>0.5% NH4OH in MeOH/MeOH</u>	
NS: <u>17J1820, 10µL (V2)</u>	Final Volume(s): <u>1µL</u>	
RS: <u>17K2502, 10µL (V3)</u>		

Comments: Assume 1 g = 1 mL

Cen = Centrifuged 1701851

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

B7L0101

Chemist: KC

Prep Date/Time: 14-Dec-17 10:37

1400  
KC 12/14/17

Prepared using: LCMS - SPE Extraction-LCMS

Cen	VISTA Sample ID	Date/Initials: <u>HB 12/14/17</u>		BalanceID: <u>HRM1-Y</u>				IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
		pH Before	pH After	Chlorine (Cl)	Drops HCl Added	Bottle + Sample (g)	Bottle Only (g)			
<input checked="" type="checkbox"/>	<del>B7L0101-BLK1</del>									
<input type="checkbox"/>	B7L0101-BS1									
<input type="checkbox"/>	B7L0101-BSD1				<u>HB 12/14/17</u>					
<input type="checkbox"/>	1701840-04									
<input checked="" type="checkbox"/>	<del>1701840-05</del>									
<input type="checkbox"/>	1701840-10	<u>6</u>	<u>2</u>	<u>0</u>	<u>3</u>	<u>135.05</u>	<u>26.85</u>	<u>0.10920</u>	<u>KC GRB 12/14/17</u>	<u>GRB 12/14/17</u>
<input checked="" type="checkbox"/>	<del>1701851-01</del>									
<input type="checkbox"/>	1701851-02									
<input type="checkbox"/>	1701851-03									
<input type="checkbox"/>	1701851-04									
<input type="checkbox"/>	1701851-05									
<input type="checkbox"/>	1701851-06					<u>12/14/17 HB</u>				
<input type="checkbox"/>	1701851-07									
<input type="checkbox"/>	1701851-08									
<input checked="" type="checkbox"/>	<del>1701851-09</del>									

IS: <u>17L0402, 10µL (V4)</u>	SPE Chem: <u>Greata X-AW 33µm 200mg 6mL MeOH</u>	Notes:
IS SUP: <u>N/A</u>	Ele SOLV: <u>0.5% NaOH in MeOH</u>	
NS: <u>17J1820, 10µL (V1)</u>	Final Volume(s): <u>1µL</u>	
RS: <u>17K2502, 10µL (V3)</u>		

Comments: Assume 1 g = 1 mL

Cen = Centrifuge 1701851

Batch: B7L0101

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1701840-04	0.1211 ✓	NA	NA	1000	14-Dec-17 14:00	GRB			Aqueous	537M PFAS DOD (LOQ as
1701840-05	0.11512 ✓	T	T	1000	14-Dec-17 14:00	GRB			Aqueous	537M PFAS DOD (LOQ as
1701840-10	0.1082 ✓			1000	14-Dec-17 14:00	GRB			Aqueous	537M PFAS DOD (LOQ as
1701851-01	0.22334 ✓			1000	14-Dec-17 14:00	GRB			Groundwater	537M PFAS DOD (LOQ as
1701851-02	0.25131 ✓			1000	14-Dec-17 14:00	GRB			Groundwater	537M PFAS DOD (LOQ as
1701851-03	0.2638 ✓			1000	14-Dec-17 14:00	GRB			Groundwater	537M PFAS DOD (LOQ as
1701851-04	0.25637 ✓			1000	14-Dec-17 14:00	GRB			Groundwater	537M PFAS DOD (LOQ as
1701851-05	0.23285 ✓			1000	14-Dec-17 14:00	GRB			Groundwater	537M PFAS DOD (LOQ as
1701851-06	0.26159 ✓			1000	14-Dec-17 14:00	GRB			Groundwater	537M PFAS DOD (LOQ as
1701851-07	0.2536 ✓			1000	14-Dec-17 14:00	GRB			Groundwater	537M PFAS DOD (LOQ as
1701851-08	0.26041 ✓			1000	14-Dec-17 14:00	GRB			Groundwater	537M PFAS DOD (LOQ as
1701851-09	0.25898 ✓			1000	14-Dec-17 14:00	GRB			Groundwater	537M PFAS DOD (LOQ as
B7L0101-BLK1	0.25 ✓			1000	14-Dec-17 14:00	GRB				QC
B7L0101-BS1	0.25 ✓			1000	14-Dec-17 14:00	GRB	17J1820 ✓	10 ✓		QC
B7L0101-BSD1	0.25 ✓	↓	↓	1000	14-Dec-17 14:00	GRB	17J1820 ✓	10 ✓		QC

KC 12/16/17

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time

Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818.mdb 09 Jan 2018 10:39:49

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Compound name: PFBA

Correlation coefficient:  $r = 0.999526$ ,  $r^2 = 0.999051$

Calibration curve:  $1.47179 * x + -0.0484807$

Response type: Internal Std ( Ref 31 ), Area \* ( IS Conc. / IS Area )

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

*P 1/11/18*  
*vja 01/11/2018*

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180110M3_2	Standard	0.250	1.34	158.015	5445.118	0.363	0.3	11.8	NO	0.999	NO	MM
2	2 180110M3_3	Standard	0.500	1.34	298.382	5531.277	0.674	0.5	-1.8	NO	0.999	NO	MM
3	3 180110M3_4	Standard	1.000	1.34	656.323	6197.237	1.324	0.9	-6.8	NO	0.999	NO	bb
4	4 180110M3_5	Standard	2.000	1.34	1397.959	6682.359	2.615	1.8	-9.5	NO	0.999	NO	bb
5	5 180110M3_6	Standard	5.000	1.33	5018.948	8645.433	7.257	5.0	-0.7	NO	0.999	NO	bb
6	6 180110M3_7	Standard	10.000	1.34	8762.965	7475.106	14.654	10.0	-0.1	NO	0.999	NO	bb
7	7 180110M3_8	Standard	50.000	1.34	47496.918	8574.918	69.238	47.1	-5.8	NO	0.999	NO	bb
8	8 180110M3_9	Standard	100.000	1.34	92845.438	8087.149	143.508	97.5	-2.5	NO	0.999	NO	bb
9	9 180110M3_10	Standard	250.000	1.34	322793.250	10724.149	376.246	255.7	2.3	NO	0.999	NO	bb

Compound name: PFPeA

Correlation coefficient:  $r = 0.999692$ ,  $r^2 = 0.999384$

Calibration curve:  $1.26321 * x + -0.0617763$

Response type: Internal Std ( Ref 32 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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 180110M3_2	Standard	0.250	2.31	137.895	6191.314	0.278	0.3	7.7	NO	0.999	NO	bb
2	2 180110M3_3	Standard	0.500	2.32	294.900	6388.503	0.577	0.5	1.1	NO	0.999	NO	bb
3	3 180110M3_4	Standard	1.000	2.31	611.176	7240.874	1.055	0.9	-11.6	NO	0.999	NO	bb
4	4 180110M3_5	Standard	2.000	2.31	1403.153	7656.253	2.291	1.9	-6.9	NO	0.999	NO	bb
5	5 180110M3_6	Standard	5.000	2.31	5529.848	10067.521	6.866	5.5	9.7	NO	0.999	NO	bb
6	6 180110M3_7	Standard	10.000	2.32	9436.634	9432.145	12.506	9.9	-0.5	NO	0.999	NO	bb
7	7 180110M3_8	Standard	50.000	2.32	48777.508	9361.531	65.130	51.6	3.2	NO	0.999	NO	bb
8	8 180110M3_9	Standard	100.000	2.31	87627.469	8984.164	121.919	96.6	-3.4	NO	0.999	NO	bb
9	9 180110M3_10	Standard	250.000	2.32	298433.719	11738.701	317.788	251.6	0.6	NO	0.999	NO	bb

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Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

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**Compound name: PFBS**

Coefficient of Determination:  $R^2 = 0.999640$

Calibration curve:  $0.00081362 * x^2 + 2.12043 * x + 0.00999409$

Response type: Internal Std ( Ref 33 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180110M3_2	Standard	0.250	2.59	40.093	843.391	0.594	0.3	10.2	NO	1.000	NO	MM
2	2 180110M3_3	Standard	0.500	2.60	65.625	875.797	0.937	0.4	-12.6	NO	1.000	NO	MM
3	3 180110M3_4	Standard	1.000	2.60	157.137	894.616	2.196	1.0	3.0	NO	1.000	NO	bb
4	4 180110M3_5	Standard	2.000	2.60	324.442	1011.215	4.011	1.9	-5.7	NO	1.000	NO	bb
5	5 180110M3_6	Standard	5.000	2.59	1100.859	1232.651	11.164	5.2	5.0	NO	1.000	NO	bb
6	6 180110M3_7	Standard	10.000	2.60	2102.512	1207.154	21.771	10.2	2.2	NO	1.000	NO	bb
7	7 180110M3_8	Standard	50.000	2.59	10660.588	1285.018	103.701	48.0	-4.0	NO	1.000	NO	bb
8	8 180110M3_9	Standard	100.000	2.59	21287.502	1183.646	224.809	102.0	2.0	NO	1.000	NO	bb
9	9 180110M3_10	Standard	250.000	2.60	69073.766	1488.746	579.966	249.6	-0.2	NO	1.000	NO	bb

**Compound name: PFHxA**

Correlation coefficient:  $r = 0.999048$ ,  $r^2 = 0.998098$

Calibration curve:  $1.9385 * x + -0.0246659$

Response type: Internal Std ( Ref 34 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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 180110M3_2	Standard	0.250	3.09	216.357	2081.847	0.520	0.3	12.3	NO	0.998	NO	bb
2	2 180110M3_3	Standard	0.500	3.09	311.359	2064.240	0.754	0.4	-19.6	NO	0.998	NO	bb
3	3 180110M3_4	Standard	1.000	3.09	809.112	2293.726	1.764	0.9	-7.7	NO	0.998	NO	bb
4	4 180110M3_5	Standard	2.000	3.09	1863.764	2353.448	3.960	2.1	2.8	NO	0.998	NO	bb
5	5 180110M3_6	Standard	5.000	3.09	6463.479	3551.324	9.100	4.7	-5.9	NO	0.998	NO	bb
6	6 180110M3_7	Standard	10.000	3.09	12226.492	2750.103	22.229	11.5	14.8	NO	0.998	NO	bb
7	7 180110M3_8	Standard	50.000	3.09	62812.871	3223.589	97.427	50.3	0.5	NO	0.998	NO	bb
8	8 180110M3_9	Standard	100.000	3.09	121751.227	2973.789	204.707	105.6	5.6	NO	0.998	NO	bb
9	9 180110M3_10	Standard	250.000	3.09	379602.906	4029.222	471.062	243.0	-2.8	NO	0.998	NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
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**Compound name: PFHpA**

Correlation coefficient:  $r = 0.999839$ ,  $r^2 = 0.999677$

Calibration curve:  $1.65421 * x + -0.120464$

Response type: Internal Std ( Ref 35 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	0.250	3.71	153.400	5439.776	0.352	0.3	14.4	NO	1.000	NO	bb
2	180110M3_3	Standard	0.500	3.71	280.672	5317.372	0.660	0.5	-5.7	NO	1.000	NO	bb
3	180110M3_4	Standard	1.000	3.71	717.935	6029.103	1.488	1.0	-2.7	NO	1.000	NO	bb
4	180110M3_5	Standard	2.000	3.71	1492.550	6373.487	2.927	1.8	-7.9	NO	1.000	NO	bb
5	180110M3_6	Standard	5.000	3.71	5516.071	8559.692	8.055	4.9	-1.2	NO	1.000	NO	bb
6	180110M3_7	Standard	10.000	3.71	9751.433	7383.596	16.509	10.1	0.5	NO	1.000	NO	bb
7	180110M3_8	Standard	50.000	3.71	51160.898	7430.805	86.062	52.1	4.2	NO	1.000	NO	bb
8	180110M3_9	Standard	100.000	3.70	97725.922	7501.529	162.843	98.5	-1.5	NO	1.000	NO	bb
9	180110M3_10	Standard	250.000	3.71	316358.625	9581.552	412.718	249.6	-0.2	NO	1.000	NO	bb

**Compound name: L-PFHxS**

Correlation coefficient:  $r = 0.999101$ ,  $r^2 = 0.998203$

Calibration curve:  $2.11856 * x + -0.208942$

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	0.250	3.85	19.254	607.107	0.396	0.3	14.3	NO	0.998	NO	MM
2	180110M3_3	Standard	0.500	3.86	48.454	587.859	1.030	0.6	17.0	NO	0.998	NO	MM
3	180110M3_4	Standard	1.000	3.85	74.238	721.191	1.287	0.7	-29.4	NO	0.998	NO	MM
4	180110M3_5	Standard	2.000	3.85	208.085	841.432	3.091	1.6	-22.1	NO	0.998	NO	MM
5	180110M3_6	Standard	5.000	3.86	868.133	928.808	11.683	5.6	12.3	NO	0.998	NO	MM
6	180110M3_7	Standard	10.000	3.86	1509.147	837.404	22.527	10.7	7.3	NO	0.998	NO	MM
7	180110M3_8	Standard	50.000	3.85	7829.683	881.507	111.027	52.5	5.0	NO	0.998	NO	MM
8	180110M3_9	Standard	100.000	3.85	15222.428	947.682	200.785	94.9	-5.1	NO	0.998	NO	MM
9	180110M3_10	Standard	250.000	3.86	50756.664	1189.369	533.441	251.9	0.8	NO	0.998	NO	MM

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
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**Compound name: 6:2 FTS**

Coefficient of Determination:  $R^2 = 0.995180$   
 Calibration curve:  $0.0125368 * x^2 + 2.94435 * x + -0.110501$   
 Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Include, 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 180110M3_2	Standard	0.250	4.17	27.306	607.107	0.562	0.2	-8.7	NO	0.995	NO	MM
2	2 180110M3_3	Standard	0.500	4.18	82.592	587.859	1.756	0.6	26.5	NO	0.995	NO	bb
3	3 180110M3_4	Standard	1.000	4.17	113.301	721.191	1.964	0.7	-29.8	NO	0.995	NO	bb
4	4 180110M3_5	Standard	2.000	4.17	318.644	841.432	4.734	1.6	-18.3	NO	0.995	NO	bb
5	5 180110M3_6	Standard	5.000	4.17	1331.516	928.808	17.920	6.0	19.4	NO	0.995	NO	bb
6	6 180110M3_7	Standard	10.000	4.17	1956.682	837.404	29.208	9.6	-4.3	NO	0.995	NO	bb
7	7 180110M3_8	Standard	50.000	4.17	12586.734	881.507	178.483	50.0	0.0	NO	0.995	NO	bb
8	8 180110M3_9	Standard	100.000	4.17	18243.367	947.682	240.631	64.2	-35.8	NO	0.995	NO	bbX
9	9 180110M3_10	Standard	250.000	4.17	67354.156	1189.369	707.877	147.6	-40.9	NO	0.995	NO	bbX

**Compound name: L-PFOA**

Coefficient of Determination:  $R^2 = 0.998464$   
 Calibration curve:  $-9.7055e-005 * x^2 + 1.26022 * x + 0.185633$   
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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 180110M3_2	Standard	0.250	4.23	298.790	6843.800	0.546	0.3	14.3	NO	0.998	NO	MM
2	2 180110M3_3	Standard	0.500	4.23	519.394	7076.908	0.917	0.6	16.1	NO	0.998	NO	MM
3	3 180110M3_4	Standard	1.000	4.22	859.486	9304.335	1.155	0.8	-23.1	NO	0.998	NO	bb
4	4 180110M3_5	Standard	2.000	4.23	1848.242	8455.973	2.732	2.0	1.1	NO	0.998	NO	db
5	5 180110M3_6	Standard	5.000	4.22	5524.569	11446.934	6.033	4.6	-7.2	NO	0.998	NO	bb
6	6 180110M3_7	Standard	10.000	4.23	10129.542	10524.176	12.031	9.4	-5.9	NO	0.998	NO	bb
7	7 180110M3_8	Standard	50.000	4.22	52634.219	9660.232	68.107	54.1	8.2	NO	0.998	NO	bb
8	8 180110M3_9	Standard	100.000	4.22	96777.461	10039.607	120.495	96.2	-3.8	NO	0.998	NO	bb
9	9 180110M3_10	Standard	250.000	4.22	349181.594	14076.219	310.081	250.7	0.3	NO	0.998	NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
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**Compound name: PFHpS**

Coefficient of Determination: R<sup>2</sup> = 0.999403  
 Calibration curve: 0.00123665 \* x<sup>2</sup> + 0.283611 \* x + -0.0187761  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	4.34	40.899	6843.800	0.075	0.3	31.6	NO	0.999	NO	MMX
2	180110M3_3	Standard	0.500	4.33	68.354	7076.908	0.121	0.5	-1.8	NO	0.999	NO	bb
3	180110M3_4	Standard	1.000	4.33	197.523	9304.335	0.265	1.0	-0.2	NO	0.999	NO	bb
4	180110M3_5	Standard	2.000	4.33	365.727	8455.973	0.541	2.0	-2.2	NO	0.999	NO	bb
5	180110M3_6	Standard	5.000	4.33	1415.746	11446.934	1.546	5.4	7.8	NO	0.999	NO	bb
6	180110M3_7	Standard	10.000	4.34	2382.782	10524.176	2.830	9.6	-3.6	NO	0.999	NO	bb
7	180110M3_8	Standard	50.000	4.33	13342.360	9660.232	17.265	50.0	0.1	NO	0.999	NO	bb
8	180110M3_9	Standard	100.000	4.33	26513.092	10039.607	33.011	85.0	-15.0	NO	0.999	NO	bbX
9	180110M3_10	Standard	250.000	4.33	85610.664	14076.219	76.024	158.5	-36.6	NO	0.999	NO	bbX

**Compound name: PFNA**

Coefficient of Determination: R<sup>2</sup> = 0.998092  
 Calibration curve: 0.000693223 \* x<sup>2</sup> + 1.40868 \* x + 0.0082777  
 Response type: Internal Std ( Ref 39 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	4.66	214.934	6595.252	0.407	0.3	13.3	NO	0.998	NO	bb
2	180110M3_3	Standard	0.500	4.66	364.859	7834.280	0.582	0.4	-18.5	NO	0.998	NO	bb
3	180110M3_4	Standard	1.000	4.66	803.702	7113.500	1.412	1.0	-0.4	NO	0.998	NO	bb
4	180110M3_5	Standard	2.000	4.66	1676.318	7757.888	2.701	1.9	-4.5	NO	0.998	NO	bb
5	180110M3_6	Standard	5.000	4.66	5845.264	10243.467	7.133	5.0	0.9	NO	0.998	NO	bb
6	180110M3_7	Standard	10.000	4.66	10523.932	8076.588	16.288	11.5	14.9	NO	0.998	NO	bb
7	180110M3_8	Standard	50.000	4.66	56089.699	10747.179	65.238	45.3	-9.4	NO	0.998	NO	bb
8	180110M3_9	Standard	100.000	4.66	107733.680	8749.379	153.916	103.9	3.9	NO	0.998	NO	bb
9	180110M3_10	Standard	250.000	4.66	368969.406	11695.055	394.365	249.4	-0.3	NO	0.998	NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: PFOSA**

Correlation coefficient:  $r = 0.999329$ ,  $r^2 = 0.998658$

Calibration curve:  $1.30775 * x + 0.0347805$

Response type: Internal Std ( Ref 40 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	0.250	4.72	50.514	1564.524	0.404	0.3	12.8	NO	0.999	NO	MM
2	180110M3_3	Standard	0.500	4.72	68.373	1375.187	0.621	0.4	-10.3	NO	0.999	NO	bb
3	180110M3_4	Standard	1.000	4.71	201.535	1766.893	1.426	1.1	6.4	NO	0.999	NO	bb
4	180110M3_5	Standard	2.000	4.72	360.366	1897.929	2.373	1.8	-10.6	NO	0.999	NO	bb
5	180110M3_6	Standard	5.000	4.72	1269.298	2478.382	6.402	4.9	-2.6	NO	0.999	NO	bb
6	180110M3_7	Standard	10.000	4.72	2319.396	2100.719	13.801	10.5	5.3	NO	0.999	NO	bb
7	180110M3_8	Standard	50.000	4.72	12512.175	2311.924	67.650	51.7	3.4	NO	0.999	NO	bb
8	180110M3_9	Standard	100.000	4.72	21843.365	2220.110	122.986	94.0	-6.0	NO	0.999	NO	bb
9	180110M3_10	Standard	250.000	4.72	79570.422	2993.427	332.271	254.1	1.6	NO	0.999	NO	bb

**Compound name: L-PFOS**

Coefficient of Determination:  $R^2 = 0.997444$

Calibration curve:  $-3.62431e-005 * x^2 + 1.17583 * x + 0.0311451$

Response type: Internal Std ( Ref 41 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	4.74	52.733	1618.655	0.407	0.3	27.9	NO	0.997	NO	MM
2	180110M3_3	Standard	0.500	4.75	80.186	1941.504	0.516	0.4	-17.5	NO	0.997	NO	MM
3	180110M3_4	Standard	1.000	4.74	227.959	1895.721	1.503	1.3	25.2	NO	0.997	NO	MM
4	180110M3_5	Standard	2.000	4.74	330.437	2275.169	1.815	1.5	-24.1	NO	0.997	NO	MM
5	180110M3_6	Standard	5.000	4.74	1373.176	3237.610	5.302	4.5	-10.3	NO	0.997	NO	MM
6	180110M3_7	Standard	10.000	4.75	2325.923	2589.350	11.228	9.5	-4.7	NO	0.997	NO	MM
7	180110M3_8	Standard	50.000	4.74	13028.005	2649.839	61.457	52.3	4.6	NO	0.997	NO	MM
8	180110M3_9	Standard	100.000	4.74	24612.139	2652.518	115.985	98.9	-1.1	NO	0.997	NO	MM
9	180110M3_10	Standard	250.000	4.74	94234.469	2938.436	400.870	344.6	37.8	NO	0.997	NO	MMX

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: PFDA**

Coefficient of Determination:  $R^2 = 0.999932$   
 Calibration curve:  $0.00546964 * x^2 + 1.60165 * x + -0.235203$   
 Response type: Internal Std ( Ref 42 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.03	149.694	6621.417	0.283	0.3	29.2	NO	1.000	NO	bbX
2	180110M3_3	Standard	0.500	5.03	326.927	7011.031	0.583	0.5	2.0	NO	1.000	NO	bb
3	180110M3_4	Standard	1.000	5.03	882.103	7865.675	1.402	1.0	1.9	NO	1.000	NO	bb
4	180110M3_5	Standard	2.000	5.03	1805.777	7909.186	2.854	1.9	-4.2	NO	1.000	NO	bb
5	180110M3_6	Standard	5.000	5.03	5656.708	8990.281	7.865	5.0	-0.5	NO	1.000	NO	bb
6	180110M3_7	Standard	10.000	5.03	11071.540	8394.882	16.486	10.1	0.9	NO	1.000	NO	bb
7	180110M3_8	Standard	50.000	5.03	53691.906	7178.136	93.499	50.0	-0.0	NO	1.000	NO	bb
8	180110M3_9	Standard	100.000	5.03	106324.383	8067.630	164.739	80.7	-19.3	NO	1.000	NO	bbX
9	180110M3_10	Standard	250.000	5.03	334810.344	11784.516	355.138	147.5	-41.0	NO	1.000	NO	bbX

**Compound name: 8:2 FTS**

Coefficient of Determination:  $R^2 = 0.997732$   
 Calibration curve:  $0.00123859 * x^2 + 0.307368 * x + -0.0309813$   
 Response type: Internal Std ( Ref 42 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	5.01	6.878	6621.417	0.013	0.1	-42.8	NO	0.998	NO	MMX
2	180110M3_3	Standard	0.500	5.00	69.176	7011.031	0.123	0.5	0.2	NO	0.998	NO	bb
3	180110M3_4	Standard	1.000	5.00	143.316	7865.675	0.228	0.8	-16.1	NO	0.998	NO	bb
4	180110M3_5	Standard	2.000	5.00	310.839	7909.186	0.491	1.7	-15.6	NO	0.998	NO	bb
5	180110M3_6	Standard	5.000	5.00	1255.848	8990.281	1.746	5.7	13.1	NO	0.998	NO	bb
6	180110M3_7	Standard	10.000	5.00	2087.793	8394.882	3.109	9.8	-1.7	NO	0.998	NO	bb
7	180110M3_8	Standard	50.000	5.00	10583.119	7178.136	18.429	50.0	-0.0	NO	0.998	NO	bb
8	180110M3_9	Standard	100.000	5.00	21826.646	8067.630	33.818	82.6	-17.4	NO	0.998	NO	bbX
9	180110M3_10	Standard	250.000	5.00	63576.629	11784.516	67.437	140.2	-43.9	NO	0.998	NO	bbX

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: N-MeFOSAA**

Coefficient of Determination:  $R^2 = 0.991446$   
 Calibration curve:  $-0.00315911 * x^2 + 2.0555 * x + -0.320574$   
 Response type: Internal Std ( Ref 44 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	5.18	36.415	2584.018	0.176	0.2	-3.3	NO	0.991	NO	MM
2	180110M3_3	Standard	0.500	5.18	80.226	2279.408	0.440	0.4	-26.0	NO	0.991	NO	bb
3	180110M3_4	Standard	1.000	5.18	378.250	2474.278	1.911	1.1	8.7	NO	0.991	NO	bb
4	180110M3_5	Standard	2.000	5.19	712.568	3010.187	2.959	1.6	-20.0	NO	0.991	NO	bb
5	180110M3_6	Standard	5.000	5.18	2686.279	4004.625	8.385	4.3	-14.7	NO	0.991	NO	bb
6	180110M3_7	Standard	10.000	5.18	4645.245	3453.088	16.816	8.4	-15.5	NO	0.991	NO	bb
7	180110M3_8	Standard	50.000	5.18	27682.430	3302.028	104.793	55.9	11.9	NO	0.991	NO	bb
8	180110M3_9	Standard	100.000	5.18	50942.434	3769.683	168.921	96.7	-3.3	NO	0.991	NO	bb
9	180110M3_10	Standard	250.000	5.18	168432.422	3847.682	547.188			NO	0.991	NO	bbXI

**Compound name: N-EtFOSAA**

Coefficient of Determination:  $R^2 = 0.999097$   
 Calibration curve:  $-0.000915461 * x^2 + 1.58258 * x + -0.401153$   
 Response type: Internal Std ( Ref 45 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	5.33	66.359	3050.200	0.272	0.4	70.2	NO	0.999	NO	bbX
2	180110M3_3	Standard	0.500	5.34	73.558	3056.172	0.301	0.4	-11.3	NO	0.999	NO	bb
3	180110M3_4	Standard	1.000	5.33	220.973	3257.867	0.848	0.8	-21.0	NO	0.999	NO	bb
4	180110M3_5	Standard	2.000	5.34	631.177	3281.707	2.404	1.8	-11.3	NO	0.999	NO	bb
5	180110M3_6	Standard	5.000	5.34	2480.533	4319.860	7.178	4.8	-4.0	NO	0.999	NO	bb
6	180110M3_7	Standard	10.000	5.34	4016.860	3499.391	14.348	9.4	-6.3	NO	0.999	NO	bb
7	180110M3_8	Standard	50.000	5.34	20914.289	3318.419	78.781	51.6	3.1	NO	0.999	NO	bb
8	180110M3_9	Standard	100.000	5.33	43324.688	3635.765	148.953	100.2	0.2	NO	0.999	NO	bb
9	180110M3_10	Standard	250.000	5.33	130110.156	4818.760	337.509	249.5	-0.2	NO	0.999	NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: PFUDa**

Coefficient of Determination: R<sup>2</sup> = 0.997858

Calibration curve: -0.000355567 \* x<sup>2</sup> + 1.33241 \* x + -0.0949136

Response type: Internal Std ( Ref 46 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180110M3_2	Standard	0.250	5.36	175.412	7775.131	0.282	0.3	13.2	NO	0.998	NO	bb
2	2 180110M3_3	Standard	0.500	5.35	241.658	5841.358	0.517	0.5	-8.1	NO	0.998	NO	MM
3	3 180110M3_4	Standard	1.000	5.35	652.062	6821.692	1.195	1.0	-3.2	NO	0.998	NO	MM
4	4 180110M3_5	Standard	2.000	5.35	1465.764	7907.348	2.317	1.8	-9.4	NO	0.998	NO	bb
5	5 180110M3_6	Standard	5.000	5.35	4824.436	9228.782	6.534	5.0	-0.4	NO	0.998	NO	bb
6	6 180110M3_7	Standard	10.000	5.35	11112.00	10040.164	13.834	10.5	4.8	NO	0.998	NO	bb
7	7 180110M3_8	Standard	50.000	5.35	54444.684	9539.813	71.339	54.4	8.8	NO	0.998	NO	bb
8	8 180110M3_9	Standard	100.000	5.35	92094.172	9474.396	121.504	93.6	-6.4	NO	0.998	NO	bb
9	9 180110M3_10	Standard	250.000	5.35	343973.500	13743.283	312.856	251.8	0.7	NO	0.998	NO	bb

**Compound name: PFDS**

Coefficient of Determination: R<sup>2</sup> = 0.997344

Calibration curve: 0.000962848 \* x<sup>2</sup> + 0.363602 \* x + -0.00209133

Response type: Internal Std ( Ref 46 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180110M3_2	Standard	0.250	5.40	48.906	7775.131	0.079	0.2	-11.3	NO	0.997	NO	MM
2	2 180110M3_3	Standard	0.500	5.41	89.190	5841.358	0.191	0.5	6.0	NO	0.997	NO	bb
3	3 180110M3_4	Standard	1.000	5.40	200.620	6821.692	0.368	1.0	1.4	NO	0.997	NO	bb
4	4 180110M3_5	Standard	2.000	5.40	442.118	7907.348	0.699	1.9	-4.1	NO	0.997	NO	bb
5	5 180110M3_6	Standard	5.000	5.40	1573.748	9228.782	2.132	5.8	15.6	NO	0.997	NO	bb
6	6 180110M3_7	Standard	10.000	5.40	2755.989	10040.164	3.431	9.2	-7.8	NO	0.997	NO	bb
7	7 180110M3_8	Standard	50.000	5.40	15734.462	9539.813	20.617	50.1	0.1	NO	0.997	NO	bb
8	8 180110M3_9	Standard	100.000	5.40	26637.205	9474.396	35.144	79.8	-20.2	NO	0.997	NO	bbX
9	9 180110M3_10	Standard	250.000	5.40	84029.797	13743.283	76.428	150.3	-39.9	NO	0.997	NO	bbX

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: PFDaA**

Coefficient of Determination:  $R^2 = 0.998683$   
 Calibration curve:  $0.00180407 * x^2 + 2.09493 * x + 0.150658$   
 Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.64	187.793	4189.487	0.560	0.2	-21.8	NO	0.999	NO	MM
2	180110M3_3	Standard	0.500	5.64	395.079	3969.021	1.244	0.5	4.4	NO	0.999	NO	bd
3	180110M3_4	Standard	1.000	5.64	711.553	4869.713	1.826	0.8	-20.1	NO	0.999	NO	bd
4	180110M3_5	Standard	2.000	5.64	1599.483	4575.956	4.369	2.0	0.5	NO	0.999	NO	bd
5	180110M3_6	Standard	5.000	5.63	7052.525	6385.208	13.806	6.5	29.6	NO	0.999	NO	bb
6	180110M3_7	Standard	10.000	5.64	10897.177	5791.910	23.518	11.0	10.5	NO	0.999	NO	bb
7	180110M3_8	Standard	50.000	5.63	62116.109	7164.268	108.378	49.5	-0.9	NO	0.999	NO	bb
8	180110M3_9	Standard	100.000	5.64	105146.766	5943.687	221.131	97.3	-2.7	NO	0.999	NO	bb
9	180110M3_10	Standard	250.000	5.63	373600.125	7304.709	639.314	250.9	0.4	NO	0.999	NO	bb

**Compound name: N-MeFOSA**

Correlation coefficient:  $r = 0.999537$ ,  $r^2 = 0.999075$   
 Calibration curve:  $1.10666 * x + -0.170034$   
 Response type: Internal Std ( Ref 48 ), Area \* ( IS Conc. / IS Area )  
 Curve type: Linear, Origin: Include, 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	180110M3_2	Standard	1.250	5.71	74.505	10743.257	1.040	1.1	-12.5	NO	0.999	NO	bb
2	180110M3_3	Standard	2.500	5.71	176.977	9835.262	2.699	2.6	3.7	NO	0.999	NO	bb
3	180110M3_4	Standard	5.000	5.71	344.751	12097.896	4.275	4.0	-19.7	NO	0.999	NO	bb
4	180110M3_5	Standard	10.000	5.71	911.162	12431.512	10.994	10.1	0.9	NO	0.999	NO	bb
5	180110M3_6	Standard	25.000	5.71	3012.821	16115.154	28.043	25.5	2.0	NO	0.999	NO	bb
6	180110M3_7	Standard	50.000	5.71	5797.346	14402.728	60.378	54.7	9.4	NO	0.999	NO	bb
7	180110M3_8	Standard	250.000	5.71	29412.832	15466.819	285.251	257.9	3.2	NO	0.999	NO	bb
8	180110M3_9	Standard	500.000	5.71	54924.184	14480.274	568.955	514.3	2.9	NO	0.999	NO	bb
9	180110M3_10	Standard	1250.000	5.71	171069.844	18952.975	1353.902	1223.6	-2.1	NO	0.999	NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: PFTrDA**

Coefficient of Determination:  $R^2 = 0.999460$   
 Calibration curve:  $0.000122781 * x^2 + 2.39065 * x + 0.000840038$   
 Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.88	174.970	4189.487	0.522	0.2	-12.8	NO	0.999	NO	bb
2	180110M3_3	Standard	0.500	5.88	376.310	3969.021	1.185	0.5	-0.9	NO	0.999	NO	bb
3	180110M3_4	Standard	1.000	5.88	950.586	4869.713	2.440	1.0	2.0	NO	0.999	NO	bb
4	180110M3_5	Standard	2.000	5.89	1891.809	4575.956	5.168	2.2	8.1	NO	0.999	NO	bb
5	180110M3_6	Standard	5.000	5.88	5659.594	6385.208	11.080	4.6	-7.3	NO	0.999	NO	bb
6	180110M3_7	Standard	10.000	5.89	12450.600	5791.910	26.871	11.2	12.3	NO	0.999	NO	bb
7	180110M3_8	Standard	50.000	5.88	68696.688	7164.268	119.860	50.0	0.0	NO	0.999	NO	bb
8	180110M3_9	Standard	100.000	5.88	112410.352	5943.687	236.407	98.4	-1.6	NO	0.999	NO	bb
9	180110M3_10	Standard	250.000	5.88	354589.906	7304.709	606.783	250.6	0.2	NO	0.999	NO	bb

**Compound name: PFTeDA**

Coefficient of Determination:  $R^2 = 0.999533$   
 Calibration curve:  $0.00349062 * x^2 + 2.93229 * x + -0.154941$   
 Response type: Internal Std ( Ref 49 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	6.09	124.998	1955.129	0.799	0.3	30.1	NO	1.000	NO	bbX
2	180110M3_3	Standard	0.500	6.10	236.010	1829.135	1.613	0.6	20.5	NO	1.000	NO	bb
3	180110M3_4	Standard	1.000	6.10	405.845	2327.717	2.179	0.8	-20.5	NO	1.000	NO	bb
4	180110M3_5	Standard	2.000	6.09	1041.416	2174.831	5.986	2.1	4.4	NO	1.000	NO	bb
5	180110M3_6	Standard	5.000	6.10	3533.474	3158.222	13.985	4.8	-4.1	NO	1.000	NO	bb
6	180110M3_7	Standard	10.000	6.10	6573.327	2821.178	29.125	9.9	-1.3	NO	1.000	NO	bb
7	180110M3_8	Standard	50.000	6.09	36266.531	2885.126	157.127	50.6	1.2	NO	1.000	NO	bb
8	180110M3_9	Standard	100.000	6.10	68578.852	2620.882	327.079	99.8	-0.2	NO	1.000	NO	db
9	180110M3_10	Standard	250.000	6.10	176036.891	3871.496	568.375	162.5	-35.0	NO	1.000	NO	dbX

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: N-EtFOSA**

Coefficient of Determination:  $R^2 = 0.999897$   
 Calibration curve:  $-3.00904e-005 * x^2 + 1.02444 * x + -0.199244$   
 Response type: Internal Std ( Ref 50 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	1.250	6.10	131.383	16238.895	1.214	1.4	10.3	NO	1.000	NO	bb
2	180110M3_3	Standard	2.500	6.11	254.736	15620.249	2.446	2.6	3.3	NO	1.000	NO	bb
3	180110M3_4	Standard	5.000	6.10	520.024	17774.992	4.388	4.5	-10.4	NO	1.000	NO	bb
4	180110M3_5	Standard	10.000	6.10	1156.534	18942.303	9.158	9.1	-8.6	NO	1.000	NO	bb
5	180110M3_6	Standard	25.000	6.10	4408.425	24990.723	26.460	26.0	4.2	NO	1.000	NO	bb
6	180110M3_7	Standard	50.000	6.10	7411.040	21510.641	51.679	50.7	1.4	NO	1.000	NO	bb
7	180110M3_8	Standard	250.000	6.10	37406.688	22103.201	253.855	249.8	-0.1	NO	1.000	NO	bb
8	180110M3_9	Standard	500.000	6.10	71470.891	21279.357	503.804	499.3	-0.1	NO	1.000	NO	bb
9	180110M3_10	Standard	1250.000	6.10	207247.922	25200.256	1233.606	1250.3	0.0	NO	1.000	NO	bb

**Compound name: PFHxDA**

Coefficient of Determination:  $R^2 = 0.997686$   
 Calibration curve:  $-0.00114258 * x^2 + 0.984182 * x + 0.0683094$   
 Response type: Internal Std ( Ref 51 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	6.43	89.534	1428.470	0.313	0.2	-0.4	NO	0.998	NO	MM
2	180110M3_3	Standard	0.500	6.43	149.353	1602.730	0.466	0.4	-19.2	NO	0.998	NO	MM
3	180110M3_4	Standard	1.000	6.43	383.028	1624.887	1.179	1.1	13.0	NO	0.998	NO	bb
4	180110M3_5	Standard	2.000	6.43	604.669	1502.644	2.012	2.0	-1.0	NO	0.998	NO	bb
5	180110M3_6	Standard	5.000	6.43	2370.623	2226.881	5.323	5.4	7.4	NO	0.998	NO	bb
6	180110M3_7	Standard	10.000	6.43	3907.469	2045.703	9.550	9.7	-2.6	NO	0.998	NO	bb
7	180110M3_8	Standard	50.000	6.43	22137.709	2213.677	50.002	54.1	8.3	NO	0.998	NO	bb
8	180110M3_9	Standard	100.000	6.43	40541.285	2470.003	82.067	93.5	-6.5	NO	0.998	NO	bb
9	180110M3_10	Standard	250.000	6.43	106609.336	3028.907	175.986	253.1	1.3	NO	0.998	NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: PFODA**

Coefficient of Determination:  $R^2 = 0.997999$

Calibration curve:  $-0.00347318 * x^2 + 1.33796 * x + -0.219409$

Response type: Internal Std ( Ref 51 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	6.66	89.732	1428.470	0.314	0.4	59.7	NO	0.998	NO	bbX
2	180110M3_3	Standard	0.500	6.66	134.672	1602.730	0.420	0.5	-4.3	NO	0.998	NO	bb
3	180110M3_4	Standard	1.000	6.66	288.807	1624.887	0.889	0.8	-17.0	NO	0.998	NO	bb
4	180110M3_5	Standard	2.000	6.66	713.056	1502.644	2.373	1.9	-2.6	NO	0.998	NO	bb
5	180110M3_6	Standard	5.000	6.66	2483.912	2226.881	5.577	4.4	-12.4	NO	0.998	NO	bb
6	180110M3_7	Standard	10.000	6.66	5287.183	2045.703	12.923	10.1	0.9	NO	0.998	NO	bb
7	180110M3_8	Standard	50.000	6.66	26551.906	2213.677	59.972	52.0	4.0	NO	0.998	NO	bb
8	180110M3_9	Standard	100.000	6.66	48357.449	2470.003	97.889	98.5	-1.5	NO	0.998	NO	bb
9	180110M3_10	Standard	250.000	6.66	71018.602	3028.907	117.235	135.3	-45.9	NO	0.998	NO	bbX

**Compound name: N-MeFOSE**

Correlation coefficient:  $r = 0.998982$ ,  $r^2 = 0.997965$

Calibration curve:  $1.173 * x + -0.745383$

Response type: Internal Std ( Ref 52 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	1.250	6.24	132.978	18600.686	1.072	1.5	24.0	NO	0.998	NO	bb
2	180110M3_3	Standard	2.500	6.26	224.899	14371.076	2.347	2.6	5.5	NO	0.998	NO	bb
3	180110M3_4	Standard	5.000	6.25	520.318	17457.375	4.471	4.4	-11.1	NO	0.998	NO	bb
4	180110M3_5	Standard	10.000	6.25	1056.121	18372.555	8.623	8.0	-20.1	NO	0.998	NO	bb
5	180110M3_6	Standard	25.000	6.25	4167.101	23253.285	26.881	23.6	-5.8	NO	0.998	NO	bb
6	180110M3_7	Standard	50.000	6.25	7847.585	18111.193	64.995	56.0	12.1	NO	0.998	NO	bb
7	180110M3_8	Standard	250.000	6.25	44727.859	23087.781	290.594	248.4	-0.7	NO	0.998	NO	bb
8	180110M3_9	Standard	500.000	6.25	74536.172	20386.021	548.436	468.2	-6.4	NO	0.998	NO	bb
9	180110M3_10	Standard	1250.000	6.25	281086.719	28074.316	1501.836	1281.0	2.5	NO	0.998	NO	bd

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: N-EtFOSE**

Correlation coefficient:  $r = 0.999540$ ,  $r^2 = 0.999080$

Calibration curve:  $1.40177 * x + -0.207477$

Response type: Internal Std ( Ref 53 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	1.250	6.40	179.573	16885.416	1.595	1.3	2.9	NO	0.999	NO	bb
2	180110M3_3	Standard	2.500	6.41	310.656	13110.849	3.554	2.7	7.3	NO	0.999	NO	bb
3	180110M3_4	Standard	5.000	6.40	739.963	16446.465	6.749	5.0	-0.7	NO	0.999	NO	bb
4	180110M3_5	Standard	10.000	6.41	1344.736	16689.393	12.086	8.8	-12.3	NO	0.999	NO	bb
5	180110M3_6	Standard	25.000	6.41	5119.930	22391.037	34.299	24.6	-1.5	NO	0.999	NO	bb
6	180110M3_7	Standard	50.000	6.41	9741.974	19962.660	73.201	52.4	4.7	NO	0.999	NO	bb
7	180110M3_8	Standard	250.000	6.40	52164.645	22425.359	348.922	249.1	-0.4	NO	0.999	NO	bd
8	180110M3_9	Standard	500.000	6.40	98149.102	16106.103	914.086	652.2	30.4	NO	0.999	NO	bbX
9	180110M3_10	Standard	1250.000	6.40	346314.875	28984.094	1792.267	1278.7	2.3	NO	0.999	NO	bbX

**Compound name: 13C3-PFBA**

Response Factor: 0.763512

RRF SD: 0.0350184, Relative SD: 4.58648

Response type: Internal Std ( Ref 54 ), 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	180110M3_2	Standard	12.500	1.33	5445.118	7508.845	9.065	11.9	-5.0	NO		NO	bb
2	180110M3_3	Standard	12.500	1.34	5531.277	7057.356	9.797	12.8	2.7	NO		NO	bd
3	180110M3_4	Standard	12.500	1.34	6197.237	8001.987	9.681	12.7	1.4	NO		NO	bb
4	180110M3_5	Standard	12.500	1.34	6682.359	8507.537	9.818	12.9	2.9	NO		NO	bb
5	180110M3_6	Standard	12.500	1.33	8645.433	11925.119	9.062	11.9	-5.0	NO		NO	bb
6	180110M3_7	Standard	12.500	1.34	7475.106	10276.120	9.093	11.9	-4.7	NO		NO	bb
7	180110M3_8	Standard	12.500	1.33	8574.918	10906.643	9.828	12.9	3.0	NO		NO	bb
8	180110M3_9	Standard	12.500	1.34	8087.149	9827.420	10.286	13.5	7.8	NO		NO	bb
9	180110M3_10	Standard	12.500	1.34	10724.149	14467.951	9.265	12.1	-2.9	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: 13C3-PFPeA**

Response Factor: 0.730064

RRF SD: 0.0283912, Relative SD: 3.88886

Response type: Internal Std ( Ref 55 ), 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	180110M3_2	Standard	12.500	2.31	6191.314	8819.409	8.775	12.0	-3.8	NO		NO	bb
2	180110M3_3	Standard	12.500	2.32	6388.503	8657.168	9.224	12.6	1.1	NO		NO	bb
3	180110M3_4	Standard	12.500	2.31	7240.874	10153.727	8.914	12.2	-2.3	NO		NO	bb
4	180110M3_5	Standard	12.500	2.31	7656.253	10362.211	9.236	12.7	1.2	NO		NO	bb
5	180110M3_6	Standard	12.500	2.31	10067.521	14579.612	8.632	11.8	-5.4	NO		NO	bb
6	180110M3_7	Standard	12.500	2.32	9432.145	12281.571	9.600	13.1	5.2	NO		NO	bb
7	180110M3_8	Standard	12.500	2.31	9361.531	12975.809	9.018	12.4	-1.2	NO		NO	bb
8	180110M3_9	Standard	12.500	2.31	8984.164	11578.389	9.699	13.3	6.3	NO		NO	bb
9	180110M3_10	Standard	12.500	2.32	11738.701	16242.380	9.034	12.4	-1.0	NO		NO	bb

**Compound name: 13C3-PFBS**

Response Factor: 0.0953602

RRF SD: 0.0060334, Relative SD: 6.32696

Response type: Internal Std ( Ref 55 ), 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	180110M3_2	Standard	12.500	2.59	843.391	8819.409	1.195	12.5	0.3	NO		NO	bb
2	180110M3_3	Standard	12.500	2.60	875.797	8657.168	1.265	13.3	6.1	NO		NO	bb
3	180110M3_4	Standard	12.500	2.59	894.616	10153.727	1.101	11.5	-7.6	NO		NO	bb
4	180110M3_5	Standard	12.500	2.59	1011.215	10362.211	1.220	12.8	2.3	NO		NO	bb
5	180110M3_6	Standard	12.500	2.59	1232.651	14579.612	1.057	11.1	-11.3	NO		NO	bb
6	180110M3_7	Standard	12.500	2.60	1207.154	12281.571	1.229	12.9	3.1	NO		NO	bb
7	180110M3_8	Standard	12.500	2.59	1285.018	12975.809	1.238	13.0	3.9	NO		NO	bb
8	180110M3_9	Standard	12.500	2.59	1183.646	11578.389	1.278	13.4	7.2	NO		NO	bb
9	180110M3_10	Standard	12.500	2.60	1488.746	16242.380	1.146	12.0	-3.9	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: 13C2-PFHxA**

Response Factor: 0.596765

RRF SD: 0.0287608, Relative SD: 4.81945

Response type: Internal Std ( Ref 55 ), 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 180110M3_2	Standard	5.000	3.08	2081.847	8819.409	2.951	4.9	-1.1	NO		NO	bb
2	2 180110M3_3	Standard	5.000	3.09	2064.240	8657.168	2.981	5.0	-0.1	NO		NO	bb
3	3 180110M3_4	Standard	5.000	3.08	2293.726	10153.727	2.824	4.7	-5.4	NO		NO	bb
4	4 180110M3_5	Standard	5.000	3.09	2353.448	10362.211	2.839	4.8	-4.9	NO		NO	bb
5	5 180110M3_6	Standard	5.000	3.09	3551.324	14579.612	3.045	5.1	2.0	NO		NO	bb
6	6 180110M3_7	Standard	5.000	3.09	2750.103	12281.571	2.799	4.7	-6.2	NO		NO	bb
7	7 180110M3_8	Standard	5.000	3.09	3223.589	12975.809	3.105	5.2	4.1	NO		NO	bb
8	8 180110M3_9	Standard	5.000	3.09	2973.789	11578.389	3.210	5.4	7.6	NO		NO	bb
9	9 180110M3_10	Standard	5.000	3.09	4029.222	16242.380	3.101	5.2	3.9	NO		NO	bb

**Compound name: 13C4-PFHpA**

Response Factor: 0.604292

RRF SD: 0.0220638, Relative SD: 3.65118

Response type: Internal Std ( Ref 55 ), 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 180110M3_2	Standard	12.500	3.70	5439.776	8819.409	7.710	12.8	2.1	NO		NO	bb
2	2 180110M3_3	Standard	12.500	3.71	5317.372	8657.168	7.678	12.7	1.6	NO		NO	bb
3	3 180110M3_4	Standard	12.500	3.70	6029.103	10153.727	7.422	12.3	-1.7	NO		NO	bb
4	4 180110M3_5	Standard	12.500	3.71	6373.487	10362.211	7.688	12.7	1.8	NO		NO	bb
5	5 180110M3_6	Standard	12.500	3.70	8559.692	14579.612	7.339	12.1	-2.8	NO		NO	bb
6	6 180110M3_7	Standard	12.500	3.71	7383.596	12281.571	7.515	12.4	-0.5	NO		NO	bb
7	7 180110M3_8	Standard	12.500	3.71	7430.805	12975.809	7.158	11.8	-5.2	NO		NO	bb
8	8 180110M3_9	Standard	12.500	3.70	7501.529	11578.389	8.099	13.4	7.2	NO		NO	bb
9	9 180110M3_10	Standard	12.500	3.71	9581.552	16242.380	7.374	12.2	-2.4	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time

Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: 18O2-PFHxS**

Response Factor: 0.293143

RRF SD: 0.02198, Relative SD: 7.49804

Response type: Internal Std ( Ref 56 ), 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	180110M3_2	Standard	12.500	3.85	607.107	2278.692	3.330	11.4	-9.1	NO		NO	bb
2	180110M3_3	Standard	12.500	3.85	587.859	2027.751	3.624	12.4	-1.1	NO		NO	bb
3	180110M3_4	Standard	12.500	3.85	721.191	2588.349	3.483	11.9	-5.0	NO		NO	MM
4	180110M3_5	Standard	12.500	3.85	841.432	2638.712	3.986	13.6	8.8	NO		NO	bb
5	180110M3_6	Standard	12.500	3.86	928.808	3243.043	3.580	12.2	-2.3	NO		NO	bb
6	180110M3_7	Standard	12.500	3.86	837.404	2945.932	3.553	12.1	-3.0	NO		NO	bb
7	180110M3_8	Standard	12.500	3.85	881.507	3128.825	3.522	12.0	-3.9	NO		NO	bb
8	180110M3_9	Standard	12.500	3.85	947.682	3222.897	3.676	12.5	0.3	NO		NO	bb
9	180110M3_10	Standard	12.500	3.85	1189.369	3518.808	4.225	14.4	15.3	NO		NO	bb

**Compound name: 13C2-6:2 FTS**

Response Factor: 0.215203

RRF SD: 0.0808496, Relative SD: 37.5689

Response type: Internal Std ( Ref 57 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

*Not used*

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	180110M3_2	Standard	12.500	4.17	1482.806	7716.699	2.402	11.2	-10.7	NO		NO	bb
2	180110M3_3	Standard	12.500	4.17	1155.556	8022.848	1.800	8.4	-33.1	NO		NO	bb
3	180110M3_4	Standard	12.500	4.17	1397.855	9839.251	1.776	8.3	-34.0	NO		NO	bb
4	180110M3_5	Standard	12.500	4.17	1987.587	9158.829	2.713	12.6	0.8	NO		NO	bb
5	180110M3_6	Standard	12.500	4.17	2364.256	13168.367	2.244	10.4	-16.6	NO		NO	bb
6	180110M3_7	Standard	12.500	4.17	2119.823	12177.514	2.176	10.1	-19.1	NO		NO	bb
7	180110M3_8	Standard	12.500	4.17	2466.705	11624.087	2.653	12.3	-1.4	NO		NO	bb
8	180110M3_9	Standard	12.500	4.17	2650.556	9690.272	3.419	15.9	27.1	NO		NO	bb
9	180110M3_10	Standard	12.500	4.17	5642.398	14028.530	5.028	23.4	86.9	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time

Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: 13C2-PFOA**

Response Factor: 0.915764

RRF SD: 0.0680605, Relative SD: 7.4321

Response type: Internal Std ( Ref 57 ), 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 180110M3_2	Standard	12.500	4.22	6843.800	7716.699	11.086	12.1	-3.2	NO		NO	bb
2	2 180110M3_3	Standard	12.500	4.23	7076.908	8022.848	11.026	12.0	-3.7	NO		NO	bb
3	3 180110M3_4	Standard	12.500	4.22	9304.335	9839.251	11.820	12.9	3.3	NO		NO	bb
4	4 180110M3_5	Standard	12.500	4.23	8455.973	9158.829	11.541	12.6	0.8	NO		NO	bb
5	5 180110M3_6	Standard	12.500	4.22	11446.934	13168.367	10.866	11.9	-5.1	NO		NO	bb
6	6 180110M3_7	Standard	12.500	4.23	10524.176	12177.514	10.803	11.8	-5.6	NO		NO	bb
7	7 180110M3_8	Standard	12.500	4.22	9660.232	11624.087	10.388	11.3	-9.3	NO		NO	bb
8	8 180110M3_9	Standard	12.500	4.23	10039.607	9690.272	12.951	14.1	13.1	NO		NO	bb
9	9 180110M3_10	Standard	12.500	4.23	14076.219	14028.530	12.542	13.7	9.6	NO		NO	bb

**Compound name: 13C5-PFNA**

Response Factor: 0.817427

RRF SD: 0.0843622, Relative SD: 10.3205

Response type: Internal Std ( Ref 58 ), 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 180110M3_2	Standard	12.500	4.66	6595.252	8419.302	9.792	12.0	-4.2	NO		NO	bb
2	2 180110M3_3	Standard	12.500	4.66	7834.280	7958.151	12.305	15.1	20.4	NO		NO	bb
3	3 180110M3_4	Standard	12.500	4.65	7113.500	8439.292	10.536	12.9	3.1	NO		NO	bb
4	4 180110M3_5	Standard	12.500	4.66	7757.888	9727.010	9.970	12.2	-2.4	NO		NO	bb
5	5 180110M3_6	Standard	12.500	4.66	10243.467	13224.706	9.682	11.8	-5.2	NO		NO	bb
6	6 180110M3_7	Standard	12.500	4.66	8076.588	11503.174	8.776	10.7	-14.1	NO		NO	bb
7	7 180110M3_8	Standard	12.500	4.66	10747.179	11865.055	11.322	13.9	10.8	NO		NO	bb
8	8 180110M3_9	Standard	12.500	4.66	8749.379	11583.457	9.442	11.6	-7.6	NO		NO	bb
9	9 180110M3_10	Standard	12.500	4.66	11695.055	14424.272	10.135	12.4	-0.8	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: 13C8-PFOSA**

Response Factor: 0.222952

RRF SD: 0.0226253, Relative SD: 10.148

Response type: Internal Std ( Ref 61 ), 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 180110M3_2	Standard	12.500	4.72	1564.524	7146.186	2.737	12.3	-1.8	NO		NO	bb
2	2 180110M3_3	Standard	12.500	4.72	1375.187	6976.103	2.464	11.1	-11.6	NO		NO	bb
3	3 180110M3_4	Standard	12.500	4.72	1766.893	8730.687	2.530	11.3	-9.2	NO		NO	bb
4	4 180110M3_5	Standard	12.500	4.72	1897.929	8502.860	2.790	12.5	0.1	NO		NO	bb
5	5 180110M3_6	Standard	12.500	4.72	2478.382	9392.645	3.298	14.8	18.4	NO		NO	bb
6	6 180110M3_7	Standard	12.500	4.72	2100.719	10144.617	2.588	11.6	-7.1	NO		NO	bb
7	7 180110M3_8	Standard	12.500	4.72	2311.924	10475.976	2.759	12.4	-1.0	NO		NO	bb
8	8 180110M3_9	Standard	12.500	4.72	2220.110	10176.034	2.727	12.2	-2.1	NO		NO	bb
9	9 180110M3_10	Standard	12.500	4.71	2993.427	11733.247	3.189	14.3	14.4	NO		NO	bb

**Compound name: 13C8-PFOS**

Response Factor: 0.874623

RRF SD: 0.125135, Relative SD: 14.3074

Response type: Internal Std ( Ref 59 ), 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 180110M3_2	Standard	12.500	4.74	1618.655	2105.094	9.612	11.0	-12.1	NO		NO	bb
2	2 180110M3_3	Standard	12.500	4.74	1941.504	2275.136	10.667	12.2	-2.4	NO		NO	bb
3	3 180110M3_4	Standard	12.500	4.74	1895.721	2164.789	10.946	12.5	0.1	NO		NO	bb
4	4 180110M3_5	Standard	12.500	4.74	2275.169	1933.818	14.706	16.8	34.5	NO		NO	bb
5	5 180110M3_6	Standard	12.500	4.74	3237.610	3714.762	10.894	12.5	-0.4	NO		NO	bb
6	6 180110M3_7	Standard	12.500	4.74	2589.350	2811.424	11.513	13.2	5.3	NO		NO	bb
7	7 180110M3_8	Standard	12.500	4.74	2649.839	3528.814	9.386	10.7	-14.1	NO		NO	bb
8	8 180110M3_9	Standard	12.500	4.74	2652.518	3149.809	10.527	12.0	-3.7	NO		NO	bb
9	9 180110M3_10	Standard	12.500	4.74	2938.436	3620.976	10.144	11.6	-7.2	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qid

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: 13C2-PFDA**

Response Factor: 1.10533  
 RRF SD: 0.141708, Relative SD: 12.8204  
 Response type: Internal Std ( Ref 60 ), 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	180110M3_2	Standard	12.500	5.03	6621.417	6709.350	12.336	11.2	-10.7	NO		NO	bb
2	180110M3_3	Standard	12.500	5.04	7011.031	6275.866	13.964	12.6	1.1	NO		NO	bb
3	180110M3_4	Standard	12.500	5.03	7865.675	5735.000	17.144	15.5	24.1	NO		NO	bb
4	180110M3_5	Standard	12.500	5.03	7909.186	7379.163	13.398	12.1	-3.0	NO		NO	bb
5	180110M3_6	Standard	12.500	5.03	8990.281	8404.810	13.371	12.1	-3.2	NO		NO	bb
6	180110M3_7	Standard	12.500	5.03	8394.882	6873.380	15.267	13.8	10.5	NO		NO	bb
7	180110M3_8	Standard	12.500	5.03	7178.136	7852.201	11.427	10.3	-17.3	NO		NO	bb
8	180110M3_9	Standard	12.500	5.03	8067.630	8147.183	12.378	11.2	-10.4	NO		NO	bb
9	180110M3_10	Standard	12.500	5.03	11784.516	9778.104	15.065	13.6	9.0	NO		NO	bb

**Compound name: 13C2-8:2FTS**

Response Factor: 0.100865  
 RRF SD: 0.0423355, Relative SD: 41.9722  
 Response type: Internal Std ( Ref 55 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

*Not used*

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x-excluded
1	180110M3_2	Standard	12.500	5.00	644.281	8819.409	0.913	9.1	-27.6	NO		NO	bb
2	180110M3_3	Standard	12.500	5.00	889.045	8657.168	1.284	12.7	1.8	NO		NO	bb
3	180110M3_4	Standard	12.500	5.00	654.053	10153.727	0.805	8.0	-36.1	NO		NO	bb
4	180110M3_5	Standard	12.500	5.01	773.072	10362.211	0.933	9.2	-26.0	NO		NO	bb
5	180110M3_6	Standard	12.500	5.00	975.410	14579.612	0.836	8.3	-33.7	NO		NO	bb
6	180110M3_7	Standard	12.500	5.00	1012.922	12281.571	1.031	10.2	-18.2	NO		NO	bb
7	180110M3_8	Standard	12.500	5.00	1364.890	12975.809	1.315	13.0	4.3	NO		NO	bb
8	180110M3_9	Standard	12.500	5.00	1744.984	11578.389	1.884	18.7	49.4	NO		NO	bb
9	180110M3_10	Standard	12.500	5.00	3049.447	16242.380	2.347	23.3	86.1	NO		NO	bb

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Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time

Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: d3-N-MeFOSAA**

Response Factor: 0.34512

RRF SD: 0.0402363, Relative SD: 11.6586

Response type: Internal Std ( Ref 61 ), 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 180110M3_2	Standard	12.500	5.18	2584.018	7146.186	4.520	13.1	4.8	NO		NO	bb
2	2 180110M3_3	Standard	12.500	5.18	2279.408	6976.103	4.084	11.8	-5.3	NO		NO	bb
3	3 180110M3_4	Standard	12.500	5.18	2474.278	8730.687	3.543	10.3	-17.9	NO		NO	bb
4	4 180110M3_5	Standard	12.500	5.18	3010.187	8502.860	4.425	12.8	2.6	NO		NO	bb
5	5 180110M3_6	Standard	12.500	5.18	4004.625	9392.645	5.329	15.4	23.5	NO		NO	bb
6	6 180110M3_7	Standard	12.500	5.18	3453.088	10144.617	4.255	12.3	-1.4	NO		NO	bb
7	7 180110M3_8	Standard	12.500	5.18	3302.028	10475.976	3.940	11.4	-8.7	NO		NO	bb
8	8 180110M3_9	Standard	12.500	5.18	3769.683	10176.034	4.631	13.4	7.3	NO		NO	bb
9	9 180110M3_10	Standard	12.500	5.18	3847.682	11733.247	4.099	11.9	-5.0	NO		NO	bb

**Compound name: d5-N-EtFOSAA**

Response Factor: 0.390404

RRF SD: 0.0471008, Relative SD: 12.0646

Response type: Internal Std ( Ref 61 ), 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 180110M3_2	Standard	12.500	5.33	3050.200	7146.186	5.335	13.7	9.3	NO		NO	bb
2	2 180110M3_3	Standard	12.500	5.33	3056.172	6976.103	5.476	14.0	12.2	NO		NO	bb
3	3 180110M3_4	Standard	12.500	5.33	3257.867	8730.687	4.664	11.9	-4.4	NO		NO	bb
4	4 180110M3_5	Standard	12.500	5.33	3281.707	8502.860	4.824	12.4	-1.1	NO		NO	bb
5	5 180110M3_6	Standard	12.500	5.33	4319.860	9392.645	5.749	14.7	17.8	NO		NO	bb
6	6 180110M3_7	Standard	12.500	5.34	3499.391	10144.617	4.312	11.0	-11.6	NO		NO	bb
7	7 180110M3_8	Standard	12.500	5.33	3318.419	10475.976	3.960	10.1	-18.9	NO		NO	bb
8	8 180110M3_9	Standard	12.500	5.33	3635.765	10176.034	4.466	11.4	-8.5	NO		NO	bb
9	9 180110M3_10	Standard	12.500	5.33	4818.760	11733.247	5.134	13.1	5.2	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
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**Compound name: 13C2-PFUdA**

Response Factor: 0.957991

RRF SD: 0.119129, Relative SD: 12.4353

Response type: Internal Std ( Ref 61 ), 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	180110M3_2	Standard	12.500	5.35	7775.131	7146.186	13.600	14.2	13.6	NO		NO	bb
2	180110M3_3	Standard	12.500	5.35	5841.358	6976.103	10.467	10.9	-12.6	NO		NO	bb
3	180110M3_4	Standard	12.500	5.35	6821.692	8730.687	9.767	10.2	-18.4	NO		NO	bb
4	180110M3_5	Standard	12.500	5.36	7907.348	8502.860	11.625	12.1	-2.9	NO		NO	bb
5	180110M3_6	Standard	12.500	5.35	9228.782	9392.645	12.282	12.8	2.6	NO		NO	bb
6	180110M3_7	Standard	12.500	5.35	10040.164	10144.617	12.371	12.9	3.3	NO		NO	bb
7	180110M3_8	Standard	12.500	5.35	9539.813	10475.976	11.383	11.9	-4.9	NO		NO	bb
8	180110M3_9	Standard	12.500	5.35	9474.396	10176.034	11.638	12.1	-2.8	NO		NO	bb
9	180110M3_10	Standard	12.500	5.35	13743.283	11733.247	14.641	15.3	22.3	NO		NO	bb

**Compound name: 13C2-PFDoA**

Response Factor: 0.599156

RRF SD: 0.0521603, Relative SD: 8.70563

Response type: Internal Std ( Ref 61 ), 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	180110M3_2	Standard	12.500	5.63	4189.487	7146.186	7.328	12.2	-2.2	NO		NO	bb
2	180110M3_3	Standard	12.500	5.64	3969.021	6976.103	7.112	11.9	-5.0	NO		NO	bb
3	180110M3_4	Standard	12.500	5.63	4869.713	8730.687	6.972	11.6	-6.9	NO		NO	bb
4	180110M3_5	Standard	12.500	5.64	4575.956	8502.860	6.727	11.2	-10.2	NO		NO	bb
5	180110M3_6	Standard	12.500	5.63	6385.208	9392.645	8.498	14.2	13.5	NO		NO	bb
6	180110M3_7	Standard	12.500	5.64	5791.910	10144.617	7.137	11.9	-4.7	NO		NO	bb
7	180110M3_8	Standard	12.500	5.63	7164.268	10475.976	8.548	14.3	14.1	NO		NO	bb
8	180110M3_9	Standard	12.500	5.63	5943.687	10176.034	7.301	12.2	-2.5	NO		NO	bb
9	180110M3_10	Standard	12.500	5.64	7304.709	11733.247	7.782	13.0	3.9	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time

Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: d3-N-MeFOSA**

Response Factor: 0.124177

RRF SD: 0.00905884, Relative SD: 7.29512

Response type: Internal Std ( Ref 61 ), 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	180110M3_2	Standard	150.000	5.73	10743.257	7146.186	18.792	151.3	0.9	NO		NO	bb
2	180110M3_3	Standard	150.000	5.73	9835.262	6976.103	17.623	141.9	-5.4	NO		NO	bb
3	180110M3_4	Standard	150.000	5.73	12097.896	8730.687	17.321	139.5	-7.0	NO		NO	bb
4	180110M3_5	Standard	150.000	5.73	12431.512	8502.860	18.275	147.2	-1.9	NO		NO	bb
5	180110M3_6	Standard	150.000	5.73	16115.154	9392.645	21.447	172.7	15.1	NO		NO	bb
6	180110M3_7	Standard	150.000	5.73	14402.728	10144.617	17.747	142.9	-4.7	NO		NO	bb
7	180110M3_8	Standard	150.000	5.73	15466.819	10475.976	18.455	148.6	-0.9	NO		NO	bb
8	180110M3_9	Standard	150.000	5.73	14480.274	10176.034	17.787	143.2	-4.5	NO		NO	bb
9	180110M3_10	Standard	150.000	5.73	18952.975	11733.247	20.192	162.6	8.4	NO		NO	bb

**Compound name: 13C2-PFTeDA**

Response Factor: 0.281715

RRF SD: 0.0301772, Relative SD: 10.712

Response type: Internal Std ( Ref 61 ), 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	180110M3_2	Standard	12.500	6.10	1955.129	7146.186	3.420	12.1	-2.9	NO		NO	bb
2	180110M3_3	Standard	12.500	6.10	1829.135	6976.103	3.278	11.6	-6.9	NO		NO	bb
3	180110M3_4	Standard	12.500	6.10	2327.717	8730.687	3.333	11.8	-5.4	NO		NO	bb
4	180110M3_5	Standard	12.500	6.10	2174.831	8502.860	3.197	11.3	-9.2	NO		NO	bb
5	180110M3_6	Standard	12.500	6.10	3158.222	9392.645	4.203	14.9	19.4	NO		NO	bb
6	180110M3_7	Standard	12.500	6.10	2821.178	10144.617	3.476	12.3	-1.3	NO		NO	bb
7	180110M3_8	Standard	12.500	6.10	2885.126	10475.976	3.443	12.2	-2.2	NO		NO	bb
8	180110M3_9	Standard	12.500	6.10	2620.882	10176.034	3.219	11.4	-8.6	NO		NO	bb
9	180110M3_10	Standard	12.500	6.10	3871.496	11733.247	4.124	14.6	17.1	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time

Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: d5-N-ETFOSA**

Response Factor: 0.184306

RRF SD: 0.0154361, Relative SD: 8.37525

Response type: Internal Std ( Ref 61 ), 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	180110M3_2	Standard	150.000	6.12	16238.895	7146.186	28.405	154.1	2.7	NO		NO	bb
2	180110M3_3	Standard	150.000	6.12	15620.249	6976.103	27.989	151.9	1.2	NO		NO	bb
3	180110M3_4	Standard	150.000	6.12	17774.992	8730.687	25.449	138.1	-7.9	NO		NO	bb
4	180110M3_5	Standard	150.000	6.12	18942.303	8502.860	27.847	151.1	0.7	NO		NO	bb
5	180110M3_6	Standard	150.000	6.12	24990.723	9392.645	33.258	180.5	20.3	NO		NO	bb
6	180110M3_7	Standard	150.000	6.12	21510.641	10144.617	26.505	143.8	-4.1	NO		NO	bb
7	180110M3_8	Standard	150.000	6.11	22103.201	10475.976	26.374	143.1	-4.6	NO		NO	bb
8	180110M3_9	Standard	150.000	6.12	21279.357	10176.034	26.139	141.8	-5.5	NO		NO	bb
9	180110M3_10	Standard	150.000	6.12	25200.256	11733.247	26.847	145.7	-2.9	NO		NO	bb

**Compound name: 13C2-PFHxDA**

Response Factor: 0.539833

RRF SD: 0.0687366, Relative SD: 12.7329

Response type: Internal Std ( Ref 61 ), 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	180110M3_2	Standard	5.000	6.43	1428.470	7146.186	2.499	4.6	-7.4	NO		NO	bb
2	180110M3_3	Standard	5.000	6.43	1602.730	6976.103	2.872	5.3	6.4	NO		NO	bb
3	180110M3_4	Standard	5.000	6.43	1624.887	8730.687	2.326	4.3	-13.8	NO		NO	bb
4	180110M3_5	Standard	5.000	6.43	1502.644	8502.860	2.209	4.1	-18.2	NO		NO	bb
5	180110M3_6	Standard	5.000	6.43	2226.881	9392.645	2.964	5.5	9.8	NO		NO	bb
6	180110M3_7	Standard	5.000	6.43	2045.703	10144.617	2.521	4.7	-6.6	NO		NO	bb
7	180110M3_8	Standard	5.000	6.43	2213.677	10475.976	2.641	4.9	-2.1	NO		NO	bb
8	180110M3_9	Standard	5.000	6.43	2470.003	10176.034	3.034	5.6	12.4	NO		NO	bb
9	180110M3_10	Standard	5.000	6.43	3028.907	11733.247	3.227	6.0	19.5	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: d7-N-MeFOSE**

Response Factor: 0.182261  
 RRF SD: 0.0217695, Relative SD: 11.9442  
 Response type: Internal Std ( Ref 61 ), 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	180110M3_2	Standard	150.000	6.24	18600.686	7146.186	32.536	178.5	19.0	NO		NO	bb
2	180110M3_3	Standard	150.000	6.24	14371.076	6976.103	25.751	141.3	-5.8	NO		NO	bb
3	180110M3_4	Standard	150.000	6.24	17457.375	8730.687	24.994	137.1	-8.6	NO		NO	bb
4	180110M3_5	Standard	150.000	6.24	18372.555	8502.860	27.009	148.2	-1.2	NO		NO	bb
5	180110M3_6	Standard	150.000	6.24	23253.285	9392.645	30.946	169.8	13.2	NO		NO	bb
6	180110M3_7	Standard	150.000	6.24	18111.193	10144.617	22.316	122.4	-18.4	NO		NO	bb
7	180110M3_8	Standard	150.000	6.24	23087.781	10475.976	27.548	151.1	0.8	NO		NO	bb
8	180110M3_9	Standard	150.000	6.24	20386.021	10176.034	25.042	137.4	-8.4	NO		NO	bb
9	180110M3_10	Standard	150.000	6.24	28074.316	11733.247	29.909	164.1	9.4	NO		NO	bb

**Compound name: d9-N-EtFOSE**

Response Factor: 0.172538  
 RRF SD: 0.024293, Relative SD: 14.0798  
 Response type: Internal Std ( Ref 61 ), 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	180110M3_2	Standard	150.000	6.40	16885.416	7146.186	29.536	171.2	14.1	NO		NO	bb
2	180110M3_3	Standard	150.000	6.40	13110.848	6976.103	23.492	136.2	-9.2	NO		NO	bb
3	180110M3_4	Standard	150.000	6.39	16446.465	8730.687	23.547	136.5	-9.0	NO		NO	bb
4	180110M3_5	Standard	150.000	6.39	16689.393	8502.860	24.535	142.2	-5.2	NO		NO	bb
5	180110M3_6	Standard	150.000	6.40	22391.037	9392.645	29.799	172.7	15.1	NO		NO	bb
6	180110M3_7	Standard	150.000	6.40	19962.660	10144.617	24.598	142.6	-5.0	NO		NO	bb
7	180110M3_8	Standard	150.000	6.39	22425.359	10475.976	26.758	155.1	3.4	NO		NO	bb
8	180110M3_9	Standard	150.000	6.39	16106.103	10176.034	19.784	114.7	-23.6	NO		NO	bb
9	180110M3_10	Standard	150.000	6.39	28984.094	11733.247	30.878	179.0	19.3	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time

Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: 13C4-PFBA**

Response Factor: 1

RRF SD: 3.92523e-017, Relative SD: 3.92523e-015

Response type: Internal Std ( Ref 54 ), 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 180110M3_2	Standard	12.500	1.33	7508.845	7508.845	12.500	12.5	0.0	NO		NO	bb
2	2 180110M3_3	Standard	12.500	1.34	7057.356	7057.356	12.500	12.5	0.0	NO		NO	bb
3	3 180110M3_4	Standard	12.500	1.33	8001.987	8001.987	12.500	12.5	0.0	NO		NO	bb
4	4 180110M3_5	Standard	12.500	1.33	8507.537	8507.537	12.500	12.5	0.0	NO		NO	bb
5	5 180110M3_6	Standard	12.500	1.33	11925.119	11925.119	12.500	12.5	0.0	NO		NO	bb
6	6 180110M3_7	Standard	12.500	1.34	10276.120	10276.120	12.500	12.5	0.0	NO		NO	bb
7	7 180110M3_8	Standard	12.500	1.33	10906.643	10906.643	12.500	12.5	0.0	NO		NO	bb
8	8 180110M3_9	Standard	12.500	1.34	9827.420	9827.420	12.500	12.5	0.0	NO		NO	bb
9	9 180110M3_10	Standard	12.500	1.34	14467.951	14467.951	12.500	12.5	0.0	NO		NO	bb

**Compound name: 13C5-PFHxA**

Response Factor: 1

RRF SD: 7.85046e-017, Relative SD: 7.85046e-015

Response type: Internal Std ( Ref 55 ), 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 180110M3_2	Standard	12.500	3.08	8819.409	8819.409	12.500	12.5	0.0	NO		NO	bb
2	2 180110M3_3	Standard	12.500	3.09	8657.168	8657.168	12.500	12.5	0.0	NO		NO	bb
3	3 180110M3_4	Standard	12.500	3.08	10153.727	10153.727	12.500	12.5	0.0	NO		NO	bb
4	4 180110M3_5	Standard	12.500	3.08	10362.211	10362.211	12.500	12.5	0.0	NO		NO	bb
5	5 180110M3_6	Standard	12.500	3.08	14579.612	14579.612	12.500	12.5	0.0	NO		NO	bb
6	6 180110M3_7	Standard	12.500	3.09	12281.571	12281.571	12.500	12.5	0.0	NO		NO	bb
7	7 180110M3_8	Standard	12.500	3.09	12975.809	12975.809	12.500	12.5	0.0	NO		NO	bb
8	8 180110M3_9	Standard	12.500	3.08	11578.389	11578.389	12.500	12.5	0.0	NO		NO	bb
9	9 180110M3_10	Standard	12.500	3.09	16242.380	16242.380	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: 13C3-PFHxS**

Response Factor: 1  
 RRF SD: 7.85046e-017, Relative SD: 7.85046e-015  
 Response type: Internal Std ( Ref 56 ), 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	180110M3_2	Standard	12.500	3.85	2278.692	2278.692	12.500	12.5	0.0	NO		NO	bb
2	180110M3_3	Standard	12.500	3.86	2027.751	2027.751	12.500	12.5	0.0	NO		NO	bb
3	180110M3_4	Standard	12.500	3.85	2588.349	2588.349	12.500	12.5	0.0	NO		NO	bb
4	180110M3_5	Standard	12.500	3.86	2638.712	2638.712	12.500	12.5	0.0	NO		NO	bb
5	180110M3_6	Standard	12.500	3.85	3243.043	3243.043	12.500	12.5	0.0	NO		NO	bb
6	180110M3_7	Standard	12.500	3.86	2945.932	2945.932	12.500	12.5	0.0	NO		NO	bb
7	180110M3_8	Standard	12.500	3.85	3128.825	3128.825	12.500	12.5	0.0	NO		NO	bb
8	180110M3_9	Standard	12.500	3.85	3222.897	3222.897	12.500	12.5	0.0	NO		NO	bb
9	180110M3_10	Standard	12.500	3.85	3518.808	3518.808	12.500	12.5	0.0	NO		NO	bb

**Compound name: 13C8-PFOA**

Response Factor: 1  
 RRF SD: 0, Relative SD: 0  
 Response type: Internal Std ( Ref 57 ), 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	180110M3_2	Standard	12.500	4.22	7716.699	7716.699	12.500	12.5	0.0	NO		NO	bb
2	180110M3_3	Standard	12.500	4.22	8022.848	8022.848	12.500	12.5	0.0	NO		NO	bb
3	180110M3_4	Standard	12.500	4.22	9839.251	9839.251	12.500	12.5	0.0	NO		NO	bb
4	180110M3_5	Standard	12.500	4.22	9158.829	9158.829	12.500	12.5	0.0	NO		NO	bb
5	180110M3_6	Standard	12.500	4.22	13168.367	13168.367	12.500	12.5	0.0	NO		NO	bb
6	180110M3_7	Standard	12.500	4.23	12177.514	12177.514	12.500	12.5	0.0	NO		NO	bb
7	180110M3_8	Standard	12.500	4.23	11624.087	11624.087	12.500	12.5	0.0	NO		NO	bb
8	180110M3_9	Standard	12.500	4.22	9690.272	9690.272	12.500	12.5	0.0	NO		NO	bb
9	180110M3_10	Standard	12.500	4.23	14028.530	14028.530	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: 13C9-PFNA**

Response Factor: 1  
 RRF SD: 8.77708e-017, Relative SD: 8.77708e-015  
 Response type: Internal Std ( Ref 58 ), 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	180110M3_2	Standard	12.500	4.65	8419.302	8419.302	12.500	12.5	0.0	NO		NO	bb
2	180110M3_3	Standard	12.500	4.66	7958.151	7958.151	12.500	12.5	0.0	NO		NO	bb
3	180110M3_4	Standard	12.500	4.65	8439.292	8439.292	12.500	12.5	0.0	NO		NO	bb
4	180110M3_5	Standard	12.500	4.66	9727.010	9727.010	12.500	12.5	0.0	NO		NO	bb
5	180110M3_6	Standard	12.500	4.66	13224.706	13224.706	12.500	12.5	0.0	NO		NO	bb
6	180110M3_7	Standard	12.500	4.66	11503.174	11503.174	12.500	12.5	0.0	NO		NO	bb
7	180110M3_8	Standard	12.500	4.66	11865.055	11865.055	12.500	12.5	0.0	NO		NO	bb
8	180110M3_9	Standard	12.500	4.66	11583.457	11583.457	12.500	12.5	0.0	NO		NO	bb
9	180110M3_10	Standard	12.500	4.66	14424.272	14424.272	12.500	12.5	0.0	NO		NO	bb

**Compound name: 13C4-PFOS**

Response Factor: 1  
 RRF SD: 5.55112e-017, Relative SD: 5.55112e-015  
 Response type: Internal Std ( Ref 59 ), 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	180110M3_2	Standard	12.500	4.74	2105.094	2105.094	12.500	12.5	0.0	NO		NO	bb
2	180110M3_3	Standard	12.500	4.74	2275.136	2275.136	12.500	12.5	0.0	NO		NO	bb
3	180110M3_4	Standard	12.500	4.74	2164.789	2164.789	12.500	12.5	0.0	NO		NO	bb
4	180110M3_5	Standard	12.500	4.74	1933.818	1933.818	12.500	12.5	0.0	NO		NO	bb
5	180110M3_6	Standard	12.500	4.74	3714.762	3714.762	12.500	12.5	0.0	NO		NO	bb
6	180110M3_7	Standard	12.500	4.74	2811.424	2811.424	12.500	12.5	0.0	NO		NO	bb
7	180110M3_8	Standard	12.500	4.74	3528.814	3528.814	12.500	12.5	0.0	NO		NO	bb
8	180110M3_9	Standard	12.500	4.74	3149.809	3149.809	12.500	12.5	0.0	NO		NO	bb
9	180110M3_10	Standard	12.500	4.74	3620.976	3620.976	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time  
 Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

**Compound name: 13C6-PFDA**

Response Factor: 1  
 RRF SD: 7.85046e-017, Relative SD: 7.85046e-015  
 Response type: Internal Std ( Ref 60 ), 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	180110M3_2	Standard	12.500	5.03	6709.350	6709.350	12.500	12.5	0.0	NO		NO	bb
2	180110M3_3	Standard	12.500	5.03	6275.866	6275.866	12.500	12.5	0.0	NO		NO	bb
3	180110M3_4	Standard	12.500	5.03	5735.000	5735.000	12.500	12.5	0.0	NO		NO	bb
4	180110M3_5	Standard	12.500	5.03	7379.163	7379.163	12.500	12.5	0.0	NO		NO	bb
5	180110M3_6	Standard	12.500	5.03	8404.810	8404.810	12.500	12.5	0.0	NO		NO	bb
6	180110M3_7	Standard	12.500	5.03	6873.380	6873.380	12.500	12.5	0.0	NO		NO	bb
7	180110M3_8	Standard	12.500	5.03	7852.201	7852.201	12.500	12.5	0.0	NO		NO	bb
8	180110M3_9	Standard	12.500	5.03	8147.183	8147.183	12.500	12.5	0.0	NO		NO	bb
9	180110M3_10	Standard	12.500	5.03	9778.104	9778.104	12.500	12.5	0.0	NO		NO	bb

**Compound name: 13C7-PFUDa**

Response Factor: 1  
 RRF SD: 0, Relative SD: 0  
 Response type: Internal Std ( Ref 61 ), 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	180110M3_2	Standard	12.500	5.35	7146.186	7146.186	12.500	12.5	0.0	NO		NO	bb
2	180110M3_3	Standard	12.500	5.35	6976.103	6976.103	12.500	12.5	0.0	NO		NO	bb
3	180110M3_4	Standard	12.500	5.35	8730.687	8730.687	12.500	12.5	0.0	NO		NO	bb
4	180110M3_5	Standard	12.500	5.36	8502.860	8502.860	12.500	12.5	0.0	NO		NO	bb
5	180110M3_6	Standard	12.500	5.35	9392.645	9392.645	12.500	12.5	0.0	NO		NO	bb
6	180110M3_7	Standard	12.500	5.36	10144.617	10144.617	12.500	12.5	0.0	NO		NO	bb
7	180110M3_8	Standard	12.500	5.35	10475.976	10475.976	12.500	12.5	0.0	NO		NO	bb
8	180110M3_9	Standard	12.500	5.35	10176.034	10176.034	12.500	12.5	0.0	NO		NO	bb
9	180110M3_10	Standard	12.500	5.35	11733.247	11733.247	12.500	12.5	0.0	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time

Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818.mdb 09 Jan 2018 10:39:49

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3\_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

#	Name	CoD	CoD Flag	%RSD
1	1 PFBA	0.9991	NO	
2	2 PFPeA	0.9994	NO	
3	3 PFBS	0.9996	NO	
4	4 PFHxA	0.9981	NO	
5	5 PFHpA	0.9997	NO	
6	6 L-PFHxS	0.9982	NO	
7	8 6:2 FTS	0.9952	NO	
8	9 L-PFOA	0.9985	NO	
9	11 PFHpS	0.9994	NO	
10	12 PFNA	0.9981	NO	
11	13 PFOSA	0.9987	NO	
12	14 L-PFOS	0.9974	NO	
13	16 PFDA	0.9999	NO	
14	17 8:2 FTS	0.9977	NO	
15	18 N-MeFOSAA	0.9914	NO	
16	19 N-EtFOSAA	0.9991	NO	
17	20 PFUdA	0.9979	NO	
18	21 PFDS	0.9973	NO	
19	22 PFDoA	0.9987	NO	
20	23 N-MeFOSA	0.9991	NO	
21	24 PFTrDA	0.9995	NO	
22	25 PFTeDA	0.9995	NO	
23	26 N-EtFOSA	0.9999	NO	
24	27 PFHxDA	0.9977	NO	
25	28 PFODA	0.9980	NO	
26	29 N-MeFOSE	0.9980	NO	
27	30 N-EtFOSE	0.9991	NO	
28	31 13C3-PFBA		NO	4.586
29	32 13C3-PFPeA		NO	3.889
30	33 13C3-PFBS		NO	6.327
31	34 13C2-PFHxA		NO	4.819

Work Order 1701851

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time

Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

Name: 180110M3\_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

#	Name	CoD	CoD Flag	%RSD
32	35 13C4-PFHpA		NO	3.651
33	36 18O2-PFHxS		NO	7.498
34	37 13C2-6:2 FTS		NO	37.569
35	38 13C2-PFOA		NO	7.432
36	39 13C5-PFNA		NO	10.320
37	40 13C8-PFOA		NO	10.148
38	41 13C8-PFOS		NO	14.307
39	42 13C2-PFDA		NO	12.820
40	43 13C2-8:2 FTS		NO	41.972
41	44 d3-N-MeFOSAA		NO	11.659
42	45 d5-N-EtFOSAA		NO	12.065
43	46 13C2-PFUdA		NO	12.435
44	47 13C2-PFDoA		NO	8.706
45	48 d3-N-MeFOSA		NO	7.295
46	49 13C2-PFTeDA		NO	10.712
47	50 d5-N-ETFOSA		NO	8.375
48	51 13C2-PFHxDA		NO	12.733
49	52 d7-N-MeFOSE		NO	11.944
50	53 d9-N-EtFOSE		NO	14.080
51	54 13C4-PFBA		NO	0.000
52	55 13C5-PFHxA		NO	0.000
53	56 13C3-PFHxS		NO	0.000
54	57 13C8-PFOA		NO	0.000
55	58 13C9-PFNA		NO	0.000
56	59 13C4-PFOS		NO	0.000
57	60 13C6-PFDA		NO	0.000
58	61 13C7-PFUdA		NO	0.000

*not used*

*not used*

Dataset: Untitled

Last Altered: Thursday, January 11, 2018 15:27:52 Pacific Standard Time

Printed: Thursday, January 11, 2018 15:28:19 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818C.mdb 11 Jan 2018 15:26:25

Calibration: 11 Jan 2018 15:27:52

Compound name: PFBA

	Name	ID	Acq Date	Acq Time
1	180110M3_1	IPA	11-Jan-18	09:22:51
2	180110M3_2	ST180110M3-1 PFC CS-2 17L2606	11-Jan-18	09:34:02
3	180110M3_3	ST180110M3-2 PFC CS-1 17L2607	11-Jan-18	09:45:13
4	180110M3_4	ST180110M3-3 PFC CS0 17L2608	11-Jan-18	09:56:23
5	180110M3_5	ST180110M3-4 PFC CS1 17L2609	11-Jan-18	10:07:34
6	180110M3_6	ST180110M3-5 PFC CS2 17L2610	11-Jan-18	10:18:46
7	180110M3_7	ST180110M3-6 PFC CS3 17L2611	11-Jan-18	10:29:56
8	180110M3_8	ST180110M3-7 PFC CS4 17L2612	11-Jan-18	10:41:06
9	180110M3_9	ST180110M3-8 PFC CS5 17L2613	11-Jan-18	10:52:18
10	180110M3_10	ST180110M3-9 PFC CS6 17L2710	11-Jan-18	11:03:28
11	180110M3_11	IPA	11-Jan-18	11:14:39
12	180110M3_12	ICV180110M3-1 PFC ICV 17L1201	11-Jan-18	11:25:49

Dataset: U:\Q4.PRO\results\180110M3\180110M3\_12.qld

ⓐ Not present in SS

Last Altered: Thursday, January 11, 2018 14:32:59 Pacific Standard Time

Printed: Thursday, January 11, 2018 14:33:41 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818C.mdb 11 Jan 2018 11:46:18

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

P/1/11/18

✓ JFA 01/11/2018

Name: 180110M3\_12, Date: 11-Jan-2018, Time: 11:25:49, ID: ICV180110M3-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1 PFBA	213.0 > 168.8	8.27e3	8.56e3		1.38	1.34	12.1	8.24	82.4	NO
2	2 PFPeA	263.1 > 218.9	8.08e3	9.73e3		2.37	2.32	10.4	8.26	82.6	NO
3	3 PFBS	299.0 > 79.7	1.64e3	1.22e3		2.66	2.60	16.8	7.87	78.7	NO
4	4 PFHxA	313.2 > 268.9	9.53e3	2.94e3		3.15	3.09	16.2	8.37	83.7	NO
5	5 PFHpA	363.0 > 318.9	8.72e3	8.24e3		3.78	3.71	13.2	8.07	80.7	NO
6	6 L-PFHxS	398.9 > 79.6	1.31e3	9.86e2		3.94	3.86	16.6	7.93	79.3	NO
7	8 6:2 FTS	427.1 > 407	1.82e3	9.86e2		4.25	4.17	23.0	7.61	76.1	NO
8	9 L-PFOA	413 > 368.7	9.56e3	1.21e4		4.31	4.23	9.91	7.72	77.2	NO
9	11 PFHpS	449 > 80.0	2.06e3	1.21e4		4.42	4.34	2.14	7.38	73.8	NO
10	12 PFNA	463.0 > 418.8	1.08e4	9.71e3		4.81	4.66	13.9	9.82	98.2	NO
11	13 PFOSA	498.1 > 77.8	2.37e3	2.29e3		4.87	4.72	13.0	9.88	98.8	NO
12	14 L-PFOS	499 > 79.9	2.02e3	2.64e3		4.89	4.74	9.54	8.09	80.9	NO
13	16 PFDA	513 > 468.8	8.49e3	9.21e3		5.18	5.03	11.5	7.17	71.7	NO
14	17 8:2 FTS	527 > 506.9	1.74e3	9.21e3		5.15	5.00	2.36	7.55	75.5	NO
15	18 N-MeFOSAA	570.1 > 419	5.07e3	4.15e3		5.32	5.18	15.3	7.67	76.7	NO
16	19 N-EiFOSAA	584.2 > 419	3.88e3	4.38e3		5.48	5.34	11.0	7.26	72.6	NO
17	20 PFUdA	563.0 > 518.9	9.19e3	9.66e3		5.50	5.35	11.9	9.02	90.2	NO
18	21 PFDS	598.8 > 80	2.11e3	9.66e3		5.54	5.40	2.73	7.36	73.6	NO
19	22 PFDoA	612.9 > 569.0	1.00e4	6.35e3		5.77	5.64	19.7	9.27	92.7	NO
20	23 N-MeFOSA	512.1 > 168.9		1.48e4		5.80					NO
21	24 PFTrDA	662.9 > 618.9	9.41e3	6.35e3		6.00	5.88	18.5	7.74	77.4	NO
22	25 PFTeDA	712.9 > 668.8	5.49e3	2.33e3		6.22	6.10	29.5	9.98	99.8	NO
23	26 N-EiFOSA	526.1 > 168.9		2.26e4		6.17					NO
24	27 PFHxDA	813.1 > 768.6		1.99e3		6.53					NO
25	28 PFODA	913.1 > 868.8		1.99e3		6.74					NO
26	29 N-MeFOSE	616.1 > 58.9		2.11e4		6.27					NO
27	30 N-EiFOSE	630.1 > 58.9	7.11e1	1.70e4		6.43	6.40	0.629	0.596	112	YES
28	31 13C3-PFBA	216.1 > 171.8	8.56e3	9.86e3	0.764	1.38	1.34	10.8	14.2	113.7	NO
29	32 13C3-PFPeA	266. > 221.8	9.73e3	1.10e4	0.730	2.37	2.32	11.0	15.1	120.8	NO
30	33 13C3-PFBS	302. > 98.8	1.22e3	1.10e4	0.095	2.77	2.59	1.38	14.5	116.0	NO
31	Work Order 2701851	315 > 269.8	2.94e3	1.10e4	0.597	3.15	3.09	3.33	5.58	111.7	NO

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Dataset: U:\Q4.PRO\results\180110M3\180110M3\_12.qld

Last Altered: Thursday, January 11, 2018 14:32:59 Pacific Standard Time

Printed: Thursday, January 11, 2018 14:33:41 Pacific Standard Time

Name: 180110M3\_12, Date: 11-Jan-2018, Time: 11:25:49, ID: ICV180110M3-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

	# Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery	Out
32	35 13C4-PFHpA	367.2 > 321.8	8.24e3	1.10e4	0.604	3.78	3.71	9.33	15.4	123.6	NO	
33	36 18O2-PFHxS	403.0 > 102.6	9.86e2	2.90e3	0.293	3.94	3.86	4.25	14.5	116.0	NO	
34	37 13C2-6:2 FTS	429.1 > 408.9	2.17e3	1.06e4	0.215	4.25	4.18	2.55	11.9	94.8	NO	
35	38 13C2-PFOA	414.9 > 369.7	1.21e4	1.06e4	0.916	4.31	4.23	14.1	15.5	123.6	NO	
36	39 13C5-PFNA	468.2 > 422.9	9.71e3	9.76e3	0.817	4.81	4.66	12.4	15.2	121.7	NO	
37	40 13C8-PFOSA	506.1 > 77.7	2.29e3	9.91e3	0.223	4.87	4.72	2.89	12.9	103.6	NO	
38	41 13C8-PFOS	507.0 > 79.9	2.64e3	2.83e3	0.875	4.89	4.74	11.7	13.3	106.7	NO	
39	42 13C2-PFDA	515.1 > 469.9	9.21e3	7.32e3	1.105	5.18	5.04	15.7	14.2	113.8	NO	
40	43 13C2-8:2 FTS	529.1 > 508.7	1.21e3	1.10e4	0.101	5.15	5.00	1.37	13.6	108.5	NO	
41	44 d3-N-MeFOSAA	573.3 > 419	4.15e3	9.91e3	0.345	5.32	5.18	5.23	15.2	121.3	NO	
42	45 d5-N-EtFOSAA	589.3 > 419	4.38e3	9.91e3	0.390	5.47	5.34	5.53	14.2	113.4	NO	
43	46 13C2-PFUdA	565 > 519.8	9.66e3	9.91e3	0.958	5.49	5.35	12.2	12.7	101.8	NO	
44	47 13C2-PFDoA	615.0 > 569.7	6.35e3	9.91e3	0.599	5.77	5.63	8.01	13.4	107.0	NO	
45	48 d3-N-MeFOSA	515.2 > 168.9	1.48e4	9.91e3	0.124	5.83	5.73	18.6	150	100.1	NO	
46	49 13C2-PFTeDA	714.8 > 669.6	2.33e3	9.91e3	0.282	6.22	6.10	2.94	10.4	83.5	NO	
47	50 d5-N-ETFOSA	531.1 > 168.9	2.26e4	9.91e3	0.184	6.18	6.12	28.5	155	103.2	NO	
48	51 13C2-PFHxDA	815 > 769.7	1.99e3	9.91e3	0.540	6.53	6.43	2.52	4.66	93.2	NO	
49	52 d7-N-MeFOSE	623.1 > 58.9	2.11e4	9.91e3	0.182	6.27	6.24	26.6	146	97.2	NO	
50	53 d9-N-EtFOSE	639.2 > 58.8	1.70e4	9.91e3	0.173	6.42	6.39	21.4	124	82.8	NO	
51	54 13C4-PFBA	217. > 171.8	9.86e3	9.86e3	1.000	1.38	1.33	12.5	12.5	100.0	NO	
52	55 13C5-PFHxA	318 > 272.9	1.10e4	1.10e4	1.000	3.15	3.09	12.5	12.5	100.0	NO	
53	56 13C3-PFHxS	401.9 > 79.9	2.90e3	2.90e3	1.000	4.02	3.86	12.5	12.5	100.0	NO	
54	57 13C8-PFOA	421.3 > 376	1.06e4	1.06e4	1.000	4.38	4.22	12.5	12.5	100.0	NO	
55	58 13C9-PFNA	472.2 > 426.9	9.76e3	9.76e3	1.000	4.81	4.66	12.5	12.5	100.0	NO	
56	59 13C4-PFOS	503 > 79.9	2.83e3	2.83e3	1.000	4.89	4.74	12.5	12.5	100.0	NO	
57	60 13C6-PFDA	519.1 > 473.7	7.32e3	7.32e3	1.000	5.18	5.03	12.5	12.5	100.0	NO	
58	61 13C7-PFUdA	570.1 > 524.8	9.91e3	9.91e3	1.000	5.49	5.35	12.5	12.5	100.0	NO	

- 13CG:2#8:2FIS used in CAL

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time  
 Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818D.mdb 14 Jan 2018 14:14:32  
 Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-14-18-FULL.cdb 15 Jan 2018 14:59:56

P/15/18

**Compound name: PFBA**

Correlation coefficient:  $r = 0.996964$ ,  $r^2 = 0.993936$   
 Calibration curve:  $1.3668 * x + -0.0652293$   
 Response type: Internal Std ( Ref 31 ), Area \* ( IS Conc. / IS Area )  
 Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

vJA- 01/15/2018

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114M1_1	Standard	0.250	1.37	129.083	3626.099	0.445	0.4	49.3	YES	0.994	NO	MMX
2	2 180114M1_2	Standard	0.500	1.48	263.176	4142.458	0.794	0.6	25.7	NO	0.994	NO	MM
3	3 180114M1_3	Standard	1.000	1.48	422.732	4653.577	1.136	0.9	-12.1	NO	0.994	NO	MM
4	4 180114M1_4	Standard	2.000	1.45	738.489	4077.286	2.264	1.7	-14.8	NO	0.994	NO	db
5	5 180114M1_5	Standard	5.000	1.47	2209.521	4270.448	6.467	4.8	-4.4	NO	0.994	NO	db
6	6 180114M1_6	Standard	10.000	1.45	4556.776	4150.907	13.722	10.1	0.9	NO	0.994	NO	db
7	7 180114M1_7	Standard	50.000	1.45	20990.666	4293.536	61.111	44.8	-10.5	NO	0.994	NO	db
8	8 180114M1_8	Standard	100.000	1.44	40736.000	3527.442	144.354	105.7	5.7	NO	0.994	NO	bb

**Compound name: PFPeA**

Correlation coefficient:  $r = 0.998347$ ,  $r^2 = 0.996696$   
 Calibration curve:  $1.21215 * x + -0.1723$   
 Response type: Internal Std ( Ref 32 ), Area \* ( IS Conc. / IS Area )  
 Curve type: Linear, Origin: Exclude, 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 180114M1_1	Standard	0.250	2.27	198.462	7627.178	0.325	0.4	64.2	YES	0.997	NO	MMX
2	2 180114M1_2	Standard	0.500	2.38	305.584	8186.502	0.467	0.5	5.4	NO	0.997	NO	MM
3	3 180114M1_3	Standard	1.000	2.38	767.546	8937.973	1.073	1.0	2.8	NO	0.997	NO	bb
4	4 180114M1_4	Standard	2.000	2.37	1364.127	7741.137	2.203	2.0	-2.0	NO	0.997	NO	bb
5	5 180114M1_5	Standard	5.000	2.37	3925.066	8589.766	5.712	4.9	-2.9	NO	0.997	NO	bb
6	6 180114M1_6	Standard	10.000	2.36	7817.732	8111.648	12.047	10.1	0.8	NO	0.997	NO	bb
7	7 180114M1_7	Standard	50.000	2.35	35828.809	8074.398	55.467	45.9	-8.2	NO	0.997	NO	bb
8	8 180114M1_8	Standard	100.000	2.35	74453.281	7382.000	126.072	104.1	4.1	NO	0.997	NO	bb

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

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**Compound name: PFBS**

Coefficient of Determination:  $R^2 = 0.998347$

Calibration curve:  $0.00424493 * x^2 + 1.8508 * x + 0.12144$

Response type: Internal Std ( Ref 33 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180114M1_1	Standard	0.250	2.51	33.426	934.175	0.447	0.2	-29.6	NO	0.998	NO	MM
2	2 180114M1_2	Standard	0.500	2.62	77.424	890.167	1.087	0.5	4.2	NO	0.998	NO	bb
3	3 180114M1_3	Standard	1.000	2.62	177.969	1034.113	2.151	1.1	9.4	NO	0.998	NO	bb
4	4 180114M1_4	Standard	2.000	2.61	271.763	890.175	3.816	2.0	-0.6	NO	0.998	NO	bb
5	5 180114M1_5	Standard	5.000	2.60	880.576	1044.159	10.542	5.6	11.2	NO	0.998	NO	bb
6	6 180114M1_6	Standard	10.000	2.60	1617.037	970.681	20.823	10.9	9.1	NO	0.998	NO	bb
7	7 180114M1_7	Standard	50.000	2.59	7971.468	1017.077	97.970	47.7	-4.7	NO	0.998	NO	bb
8	8 180114M1_8	Standard	100.000	2.59	16560.941	899.773	230.071	100.9	0.9	NO	0.998	NO	bb

**Compound name: PFHxA**

Correlation coefficient:  $r = 0.999450$ ,  $r^2 = 0.998900$

Calibration curve:  $1.8219 * x + 0.0775713$

Response type: Internal Std ( Ref 34 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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 180114M1_1	Standard	0.250	3.00	298.466	2593.698	0.575	0.3	9.3	NO	0.999	NO	bb
2	2 180114M1_2	Standard	0.500	3.03	476.716	2417.925	0.986	0.5	-0.3	NO	0.999	NO	bb
3	3 180114M1_3	Standard	1.000	3.04	950.021	2496.623	1.903	1.0	0.2	NO	0.999	NO	bb
4	4 180114M1_4	Standard	2.000	3.02	1585.091	2285.827	3.467	1.9	-7.0	NO	0.999	NO	bb
5	5 180114M1_5	Standard	5.000	3.02	4849.127	2659.516	9.117	5.0	-0.8	NO	0.999	NO	bb
6	6 180114M1_6	Standard	10.000	3.02	9812.054	2659.548	18.447	10.1	0.8	NO	0.999	NO	bb
7	7 180114M1_7	Standard	50.000	3.01	44306.566	2547.623	86.957	47.7	-4.6	NO	0.999	NO	bb
8	8 180114M1_8	Standard	100.000	3.01	91646.156	2455.493	186.615	102.4	2.4	NO	0.999	NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

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**Compound name: PFHpA**

Correlation coefficient:  $r = 0.996428$ ,  $r^2 = 0.992868$

Calibration curve:  $1.28453 * x + 0.105213$

Response type: Internal Std ( Ref 35 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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	180114M1_1	Standard	0.250	3.57	190.819	6881.557	0.347	0.2	-24.8	NO	0.993	NO	bb
2	180114M1_2	Standard	0.500	3.58	308.878	5947.945	0.649	0.4	-15.3	NO	0.993	NO	bb
3	180114M1_3	Standard	1.000	3.57	743.958	6964.397	1.335	1.0	-4.2	NO	0.993	NO	bb
4	180114M1_4	Standard	2.000	3.56	1486.634	5740.771	3.237	2.4	21.9	NO	0.993	NO	bb
5	180114M1_5	Standard	5.000	3.55	4142.738	6804.188	7.611	5.8	16.9	NO	0.993	NO	bb
6	180114M1_6	Standard	10.000	3.55	7681.042	6758.660	14.206	11.0	9.8	NO	0.993	NO	bb
7	180114M1_7	Standard	50.000	3.55	33208.555	6731.813	61.663	47.9	-4.2	NO	0.993	NO	bb
8	180114M1_8	Standard	100.000	3.54	74400.289	5891.095	157.866	122.8	22.8	NO	0.993	NO	bbX

**Compound name: L-PFHxS**

Coefficient of Determination:  $R^2 = 0.990036$

Calibration curve:  $0.00482749 * x^2 + 1.6414 * x + 0.202957$

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Include, 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	180114M1_1	Standard	0.250	3.71	38.644	737.179	0.655	0.3	10.1	NO	0.990	NO	MM
2	180114M1_2	Standard	0.500	3.72	48.241	711.707	0.847	0.4	-21.6	NO	0.990	NO	MM
3	180114M1_3	Standard	1.000	3.70	142.858	884.671	2.019	1.1	10.3	NO	0.990	NO	MM
4	180114M1_4	Standard	2.000	3.70	224.301	730.128	3.840	2.2	10.1	NO	0.990	NO	MM
5	180114M1_5	Standard	5.000	3.69	614.187	723.937	10.605	6.2	24.5	NO	0.990	NO	MM
6	180114M1_6	Standard	10.000	3.68	1378.504	799.959	21.540	12.5	25.4	NO	0.990	NO	MM
7	180114M1_7	Standard	50.000	3.68	6001.384	918.361	81.686	44.0	-12.1	NO	0.990	NO	MM
8	180114M1_8	Standard	100.000	3.68	12680.335	725.783	218.391	102.2	2.2	NO	0.990	NO	MM

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: 6:2 FTS**

Coefficient of Determination:  $R^2 = 0.995652$

Calibration curve:  $-0.00171263 * x^2 + 1.07888 * x + 0.0650312$

Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Include, 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	180114M1_1	Standard	0.250	4.03	48.842	1996.372	0.306	0.2	-10.7	NO	0.996	NO	MM
2	180114M1_2	Standard	0.500	4.03	74.110	1495.703	0.619	0.5	2.8	NO	0.996	NO	MM
3	180114M1_3	Standard	1.000	4.02	179.165	1626.136	1.377	1.2	21.9	NO	0.996	NO	MM
4	180114M1_4	Standard	2.000	4.01	275.994	1735.917	1.987	1.8	-10.7	NO	0.996	NO	MM
5	180114M1_5	Standard	5.000	4.00	845.264	1683.943	6.274	5.8	16.2	NO	0.996	NO	MM
6	180114M1_6	Standard	10.000	4.00	1421.508	1511.655	11.755	11.0	10.3	NO	0.996	NO	MM
7	180114M1_7	Standard	50.000	3.99	8232.155	2228.404	46.177	46.1	-7.8	NO	0.996	NO	MM
8	180114M1_8	Standard	100.000	3.99	13453.490	1818.953	92.454	102.2	2.2	NO	0.996	NO	MM

**Compound name: L-PFOA**

Coefficient of Determination:  $R^2 = 0.999272$

Calibration curve:  $-0.0005185 * x^2 + 1.18475 * x + 0.254039$

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180114M1_1	Standard	0.250	4.11	400.479	8707.114	0.575	0.3	8.4	NO	0.999	NO	MM
2	180114M1_2	Standard	0.500	4.11	666.423	9668.123	0.862	0.5	2.6	NO	0.999	NO	bb
3	180114M1_3	Standard	1.000	4.10	1149.828	11837.389	1.214	0.8	-18.9	NO	0.999	NO	bb
4	180114M1_4	Standard	2.000	4.09	1873.390	9123.959	2.567	2.0	-2.3	NO	0.999	NO	bb
5	180114M1_5	Standard	5.000	4.08	5219.928	9599.560	6.797	5.5	10.7	NO	0.999	NO	bb
6	180114M1_6	Standard	10.000	4.08	8956.753	9220.297	12.143	10.1	0.8	NO	0.999	NO	bb
7	180114M1_7	Standard	50.000	4.08	40625.789	8862.797	57.298	49.2	-1.6	NO	0.999	NO	bb
8	180114M1_8	Standard	100.000	4.07	73704.883	8084.847	113.955	100.4	0.4	NO	0.999	NO	bb

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: PFHpS**

Coefficient of Determination:  $R^2 = 0.999513$

Calibration curve:  $0.000669016 * x^2 + 0.247135 * x + -0.0134056$

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180114M1_1	Standard	0.250	4.23	29.425	8707.114	0.042	0.2	-10.0	NO	1.000	NO	MM
2	2 180114M1_2	Standard	0.500	4.23	88.014	9668.123	0.114	0.5	2.8	NO	1.000	NO	MM
3	3 180114M1_3	Standard	1.000	4.22	210.065	11837.389	0.222	0.9	-5.1	NO	1.000	NO	MM
4	4 180114M1_4	Standard	2.000	4.21	358.776	9123.959	0.492	2.0	1.6	NO	1.000	NO	MM
5	5 180114M1_5	Standard	5.000	4.20	1074.789	9599.560	1.400	5.6	12.6	NO	1.000	NO	MM
6	6 180114M1_6	Standard	10.000	4.20	1848.967	9220.297	2.507	9.9	-0.7	NO	1.000	NO	MM
7	7 180114M1_7	Standard	50.000	4.20	9754.969	8862.797	13.758	49.2	-1.6	NO	1.000	NO	MM
8	8 180114M1_8	Standard	100.000	4.19	20382.117	8084.847	31.513	100.3	0.3	NO	1.000	NO	MM

**Compound name: PFNA**

Coefficient of Determination:  $R^2 = 0.991098$

Calibration curve:  $-0.00851903 * x^2 + 1.56926 * x + -0.036541$

Response type: Internal Std ( Ref 39 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180114M1_1	Standard	0.250	4.58	380.759	10672.131	0.446	0.3	23.2	NO	0.991	NO	MM
2	2 180114M1_2	Standard	0.500	4.58	557.026	7959.980	0.875	0.6	16.5	NO	0.991	NO	bb
3	3 180114M1_3	Standard	1.000	4.57	923.066	9755.683	1.183	0.8	-22.0	NO	0.991	NO	bb
4	4 180114M1_4	Standard	2.000	4.56	1797.713	8907.903	2.523	1.6	-17.7	NO	0.991	NO	bb
5	5 180114M1_5	Standard	5.000	4.56	4726.958	8863.639	6.666	4.4	-12.5	NO	0.991	NO	bb
6	6 180114M1_6	Standard	10.000	4.55	10893.765	8177.809	16.651	11.3	13.3	NO	0.991	NO	bb
7	7 180114M1_7	Standard	50.000	4.55	46157.016	10143.640	56.879	49.7	-0.7	NO	0.991	NO	bb
8	8 180114M1_8	Standard	100.000	4.54	80995.242	6660.756	152.001			NO	0.991	NO	bbXI

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time  
 Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: PFOSA**

Coefficient of Determination: R<sup>2</sup> = 0.994286

Calibration curve: -0.011251 \* x<sup>2</sup> + 1.65021 \* x + -0.536272

Response type: Internal Std ( Ref 40 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180114M1_1	Standard	0.250	4.65	51.013	2131.943	0.299	0.5	103.2	NO	0.994	NO	MMX
2	180114M1_2	Standard	0.500	4.65	72.145	1705.021	0.529	0.6	29.7	NO	0.994	NO	bb
3	180114M1_3	Standard	1.000	4.64	120.939	1727.581	0.875	0.9	-14.0	NO	0.994	NO	bb
4	180114M1_4	Standard	2.000	4.64	280.306	1645.980	2.129	1.6	-18.3	NO	0.994	NO	bb
5	180114M1_5	Standard	5.000	4.62	961.796	1691.695	7.107	4.8	-4.2	NO	0.994	NO	bb
6	180114M1_6	Standard	10.000	4.62	2061.423	1621.123	15.895	10.7	7.4	NO	0.994	NO	bb
7	180114M1_7	Standard	50.000	4.61	8042.539	1872.306	53.694	49.7	-0.6	NO	0.994	NO	bb
8	180114M1_8	Standard	100.000	4.61	17648.303	1510.559	146.041			NO	0.994	NO	bbXI

**Compound name: L-PFOS**

Coefficient of Determination: R<sup>2</sup> = 0.992332

Calibration curve: -0.00413738 \* x<sup>2</sup> + 1.22769 \* x + 0.000665389

Response type: Internal Std ( Ref 41 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180114M1_1	Standard	0.250	4.66	66.122	2577.436	0.321	0.3	4.4	NO	0.992	NO	MM
2	180114M1_2	Standard	0.500	4.67	95.933	2178.322	0.550	0.4	-10.3	NO	0.992	NO	MM
3	180114M1_3	Standard	1.000	4.66	260.746	2129.911	1.530	1.3	25.1	NO	0.992	NO	MM
4	180114M1_4	Standard	2.000	4.65	385.296	2219.514	2.170	1.8	-11.1	NO	0.992	NO	MM
5	180114M1_5	Standard	5.000	4.64	938.400	2380.628	4.927	4.1	-18.6	NO	0.992	NO	MM
6	180114M1_6	Standard	10.000	4.64	2323.159	2213.260	13.121	11.1	11.0	NO	0.992	NO	MM
7	180114M1_7	Standard	50.000	4.63	9813.793	2409.764	50.906	49.8	-0.3	NO	0.992	NO	MM
8	180114M1_8	Standard	100.000	4.63	21375.043	2020.897	132.213			NO	0.992	NO	MMXI

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: PFDA**

Coefficient of Determination:  $R^2 = 0.993028$

Calibration curve:  $0.00973524 * x^2 + 1.186 * x + 0.269585$

Response type: Internal Std ( Ref 42 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180114M1_1	Standard	0.250	4.97	404.357	10273.528	0.492	0.2	-25.1	NO	0.993	NO	bb
2	2 180114M1_2	Standard	0.500	4.98	467.710	7666.422	0.763	0.4	-17.1	NO	0.993	NO	MM
3	3 180114M1_3	Standard	1.000	4.97	869.876	8011.753	1.357	0.9	-9.0	NO	0.993	NO	bb
4	4 180114M1_4	Standard	2.000	4.96	1905.592	8420.399	2.829	2.1	6.0	NO	0.993	NO	bb
5	5 180114M1_5	Standard	5.000	4.95	4409.593	7078.627	7.787	6.0	20.8	NO	0.993	NO	bb
6	6 180114M1_6	Standard	10.000	4.95	9710.402	7007.409	17.322	13.0	29.9	NO	0.993	NO	bb
7	7 180114M1_7	Standard	50.000	4.94	46880.445	7914.971	74.038	45.3	-9.3	NO	0.993	NO	bb
8	8 180114M1_8	Standard	100.000	4.94	103663.273	5872.147	220.667	101.4	1.4	NO	0.993	NO	bb

**Compound name: 8:2 FTS**

Correlation coefficient:  $r = 0.996158$ ,  $r^2 = 0.992331$

Calibration curve:  $1.90577 * x + -0.0745651$

Response type: Internal Std ( Ref 43 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Include, 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 180114M1_1	Standard	0.250	4.93	34.407	1619.860	0.266	0.2	-28.6	NO	0.992	NO	MMX
2	2 180114M1_2	Standard	0.500	4.93	57.468	684.343	1.050	0.6	18.0	NO	0.992	NO	MM
3	3 180114M1_3	Standard	1.000	4.92	120.484	939.969	1.602	0.9	-12.0	NO	0.992	NO	bb
4	4 180114M1_4	Standard	2.000	4.91	250.011	1008.736	3.098	1.7	-16.8	NO	0.992	NO	bb
5	5 180114M1_5	Standard	5.000	4.90	669.049	897.015	9.323	4.9	-1.4	NO	0.992	NO	bb
6	6 180114M1_6	Standard	10.000	4.90	1510.262	952.935	19.811	10.4	4.3	NO	0.992	NO	MM
7	7 180114M1_7	Standard	50.000	4.89	6595.664	1216.973	67.747	35.6	-28.8	NO	0.992	NO	bbX
8	8 180114M1_8	Standard	100.000	4.88	15628.073	1130.511	172.799	90.7	-9.3	NO	0.992	NO	bbX

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: N-MeFOSAA**

Coefficient of Determination:  $R^2 = 0.996900$

Calibration curve:  $0.0978372 * x^2 + 1.26132 * x + -0.000840061$

Response type: Internal Std ( Ref 44 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Include, 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 180114M1_1	Standard	0.250	5.13	65.729	2386.166	0.344	0.3	7.2	NO	0.997	NO	bb
2	2 180114M1_2	Standard	0.500	5.13	109.305	2679.466	0.510	0.4	-21.4	NO	0.997	NO	bb
3	3 180114M1_3	Standard	1.000	5.12	332.162	2887.384	1.438	1.1	5.4	NO	0.997	NO	bb
4	4 180114M1_4	Standard	2.000	5.11	654.021	2460.522	3.323	2.2	12.2	NO	0.997	NO	bb
5	5 180114M1_5	Standard	5.000	5.10	1730.441	2643.908	8.181	4.7	-5.2	NO	0.997	NO	bb
6	6 180114M1_6	Standard	10.000	5.10	3411.308	1886.944	22.598	10.1	0.6	NO	0.997	NO	bb
7	7 180114M1_7	Standard	50.000	5.09	13429.551	2602.104	64.513	20.0	-59.9	NO	0.997	NO	bbX
8	8 180114M1_8	Standard	100.000	5.09	29816.752	2276.305	163.734	35.0	-65.0	NO	0.997	NO	bbX

**Compound name: N-EtFOSAA**

Correlation coefficient:  $r = 0.995957$ ,  $r^2 = 0.991929$

Calibration curve:  $1.2718 * x + -0.278352$

Response type: Internal Std ( Ref 45 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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 180114M1_1	Standard	0.250	5.30	41.404	2456.595	0.211	0.4	53.8	NO	0.992	NO	MMX
2	2 180114M1_2	Standard	0.500	5.31	124.612	3198.114	0.487	0.6	20.4	NO	0.992	NO	MMX
3	3 180114M1_3	Standard	1.000	5.30	299.620	3229.057	1.160	1.1	13.1	NO	0.992	NO	MM
4	4 180114M1_4	Standard	2.000	5.29	331.844	2758.213	1.504	1.4	-29.9	NO	0.992	NO	MM
5	5 180114M1_5	Standard	5.000	5.29	1772.276	3064.781	7.228	5.9	18.0	NO	0.992	NO	MM
6	6 180114M1_6	Standard	10.000	5.28	3749.556	3574.455	13.112	10.5	5.3	NO	0.992	NO	bb
7	7 180114M1_7	Standard	50.000	5.28	16552.547	3676.360	56.280	44.5	-11.1	NO	0.992	NO	MM
8	8 180114M1_8	Standard	100.000	5.27	30935.979	2913.941	132.707	104.6	4.6	NO	0.992	NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: PFUDa**

Coefficient of Determination: R<sup>2</sup> = 0.991571

Calibration curve: 0.00136055 \* x<sup>2</sup> + 1.14892 \* x + 0.218768

Response type: Internal Std ( Ref 46 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180114M1_1	Standard	0.250	5.32	272.133	11952.269	0.285	0.1	-77.1	NO	0.992	NO	bbX
2	2 180114M1_2	Standard	0.500	5.32	443.587	8142.762	0.681	0.4	-19.6	NO	0.992	NO	bb
3	3 180114M1_3	Standard	1.000	5.31	1032.473	9973.248	1.294	0.9	-6.5	NO	0.992	NO	bb
4	4 180114M1_4	Standard	2.000	5.31	1673.701	9333.110	2.242	1.8	-12.2	NO	0.992	NO	bb
5	5 180114M1_5	Standard	5.000	5.30	5575.767	9466.337	7.363	6.2	23.5	NO	0.992	NO	bb
6	6 180114M1_6	Standard	10.000	5.29	10551.473	9079.952	14.526	12.3	22.7	NO	0.992	NO	bb
7	7 180114M1_7	Standard	50.000	5.29	42337.848	9698.532	54.567	44.9	-10.2	NO	0.992	NO	bb
8	8 180114M1_8	Standard	100.000	5.29	86419.133	8206.241	131.636	102.1	2.1	NO	0.992	NO	bb

**Compound name: PFDS**

Coefficient of Determination: R<sup>2</sup> = 0.993596

Calibration curve: -0.000379067 \* x<sup>2</sup> + 0.349857 \* x + -0.0291515

Response type: Internal Std ( Ref 46 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180114M1_1	Standard	0.250	5.36	54.187	11952.269	0.057	0.2	-1.9	NO	0.994	NO	MM
2	2 180114M1_2	Standard	0.500	5.37	63.647	8142.762	0.098	0.4	-27.5	NO	0.994	NO	bb
3	3 180114M1_3	Standard	1.000	5.35	338.900	9973.248	0.425	1.3	29.9	NO	0.994	NO	bb
4	4 180114M1_4	Standard	2.000	5.34	422.089	9333.110	0.565	1.7	-14.9	NO	0.994	NO	bb
5	5 180114M1_5	Standard	5.000	5.34	1274.110	9466.337	1.682	4.9	-1.6	NO	0.994	NO	bb
6	6 180114M1_6	Standard	10.000	5.34	3029.879	9079.952	4.171	12.2	21.7	NO	0.994	NO	bb
7	7 180114M1_7	Standard	50.000	5.33	11897.124	9698.532	15.334	46.2	-7.5	NO	0.994	NO	bb
8	8 180114M1_8	Standard	100.000	5.33	20801.719	8206.241	31.686	101.9	1.9	NO	0.994	NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time  
 Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: PFDoA**

Coefficient of Determination:  $R^2 = 0.996462$

Calibration curve:  $-0.0186224 * x^2 + 2.78866 * x + -0.491721$

Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180114M1_1	Standard	0.250	5.62	476.521	7560.831	0.788	0.5	84.1	NO	0.996	NO	bbX
2	2 180114M1_2	Standard	0.500	5.62	615.205	6692.443	1.149	0.6	18.1	NO	0.996	NO	bb
3	3 180114M1_3	Standard	1.000	5.61	1249.795	7193.966	2.172	1.0	-3.9	NO	0.996	NO	bb
4	4 180114M1_4	Standard	2.000	5.60	2531.175	7520.150	4.207	1.7	-14.8	NO	0.996	NO	bb
5	5 180114M1_5	Standard	5.000	5.60	6172.939	6317.912	12.213	4.7	-5.9	NO	0.996	NO	bb
6	6 180114M1_6	Standard	10.000	5.60	11802.197	5426.459	27.187	10.7	6.9	NO	0.996	NO	bb
7	7 180114M1_7	Standard	50.000	5.59	52322.867	7096.452	92.164	49.8	-0.5	NO	0.996	NO	bb
8	8 180114M1_8	Standard	100.000	5.59	109564.680	5518.140	248.192			NO	0.996	NO	bbXI

**Compound name: N-MeFOSA**

Correlation coefficient:  $r = 0.999223$ ,  $r^2 = 0.998448$

Calibration curve:  $1.09225 * x + -0.176455$

Response type: Internal Std ( Ref 48 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Include, 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 180114M1_1	Standard	1.250	5.93	80.300	8791.715	1.370	1.4	13.3	NO	0.998	NO	bbX
2	2 180114M1_2	Standard	2.500	5.94	189.429	14062.988	2.021	2.0	-19.5	NO	0.998	NO	bb
3	3 180114M1_3	Standard	5.000	5.92	531.614	16152.640	4.937	4.7	-6.4	NO	0.998	NO	bb
4	4 180114M1_4	Standard	10.000	5.92	1083.273	14597.956	11.131	10.4	3.5	NO	0.998	NO	bb
5	5 180114M1_5	Standard	25.000	5.92	2949.133	15082.849	29.329	27.0	8.1	NO	0.998	NO	bb
6	6 180114M1_6	Standard	50.000	5.92	6030.591	14954.120	60.491	55.5	11.1	NO	0.998	NO	bb
7	7 180114M1_7	Standard	250.000	5.91	26838.785	15302.427	263.084	241.0	-3.6	NO	0.998	NO	bb
8	8 180114M1_8	Standard	500.000	5.91	55005.156	15056.446	547.989	501.9	0.4	NO	0.998	NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time  
 Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: PFTrDA**

Coefficient of Determination: R<sup>2</sup> = 0.997017

Calibration curve: 0.359559 \* x<sup>2</sup> + 2.96789 \* x + 1.12885

Response type: Internal Std ( Ref 49 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180114M1_1	Standard	0.250	5.89	358.953	2445.649	1.835	0.2	-7.5	NO	0.997	NO	bb
2	180114M1_2	Standard	0.500	5.89	615.254	2977.955	2.583	0.5	-7.3	NO	0.997	NO	bb
3	180114M1_3	Standard	1.000	5.88	1355.767	3643.180	4.652	1.1	5.3	NO	0.997	NO	bb
4	180114M1_4	Standard	2.000	5.87	2567.119	3315.638	9.678	2.3	13.1	NO	0.997	NO	bb
5	180114M1_5	Standard	5.000	5.86	5644.954	3058.884	23.068	4.7	-5.9	NO	0.997	NO	bb
6	180114M1_6	Standard	10.000	5.87	13760.456	2549.694	67.461	10.1	0.7	NO	0.997	NO	bb
7	180114M1_7	Standard	50.000	5.85	51574.625	3307.861	194.894	19.5	-61.1	NO	0.997	NO	bbX
8	180114M1_8	Standard	100.000	5.85	118604.547	2959.760	500.904	33.4	-66.6	NO	0.997	NO	bbX

**Compound name: PFTeDA**

Coefficient of Determination: R<sup>2</sup> = 0.998702

Calibration curve: -0.0178968 \* x<sup>2</sup> + 2.90614 \* x + -0.360258

Response type: Internal Std ( Ref 49 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180114M1_1	Standard	0.250	6.12	204.285	2445.649	1.044	0.5	93.9	NO	0.999	NO	bbX
2	180114M1_2	Standard	0.500	6.12	289.165	2977.955	1.214	0.5	8.7	NO	0.999	NO	bb
3	180114M1_3	Standard	1.000	6.11	702.186	3643.180	2.409	1.0	-4.1	NO	0.999	NO	bb
4	180114M1_4	Standard	2.000	6.10	1393.470	3315.638	5.253	2.0	-2.2	NO	0.999	NO	bb
5	180114M1_5	Standard	5.000	6.10	3134.013	3058.884	12.807	4.7	-6.7	NO	0.999	NO	bb
6	180114M1_6	Standard	10.000	6.09	5728.576	2549.694	28.085	10.5	4.6	NO	0.999	NO	bb
7	180114M1_7	Standard	50.000	6.09	26480.877	3307.861	100.068	49.9	-0.2	NO	0.999	NO	bb
8	180114M1_8	Standard	100.000	6.09	52322.582	2959.760	220.975			NO	0.999	NO	bbXI

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: N-EtFOSA**

Coefficient of Determination: R<sup>2</sup> = 0.997385

Calibration curve: 5.6043e-005 \* x<sup>2</sup> + 0.980236 \* x + 0.202634

Response type: Internal Std ( Ref 50 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180114M1_1	Standard	1.250	6.34	60.281	7003.886	1.291	1.1	-11.2	NO	0.997	NO	bbX
2	180114M1_2	Standard	2.500	6.35	237.305	14916.356	2.386	2.2	-10.9	NO	0.997	NO	bb
3	180114M1_3	Standard	5.000	6.34	549.312	17570.045	4.690	4.6	-8.5	NO	0.997	NO	bb
4	180114M1_4	Standard	10.000	6.34	1040.310	15895.931	9.817	9.8	-2.0	NO	0.997	NO	bb
5	180114M1_5	Standard	25.000	6.33	3046.671	15906.663	28.730	29.1	16.2	NO	0.997	NO	bb
6	180114M1_6	Standard	50.000	6.33	5995.736	16634.855	54.065	54.8	9.6	NO	0.997	NO	bb
7	180114M1_7	Standard	250.000	6.33	26309.844	16833.201	234.446	235.8	-5.7	NO	0.997	NO	db
8	180114M1_8	Standard	500.000	6.33	53376.750	15673.545	510.830	506.3	1.3	NO	0.997	NO	db

**Compound name: PFHxDA**

Coefficient of Determination: R<sup>2</sup> = 0.998421

Calibration curve: -0.000730462 \* x<sup>2</sup> + 0.939725 \* x + 0.0652426

Response type: Internal Std ( Ref 51 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180114M1_1	Standard	0.250	6.47	76.576	1259.462	0.304	0.3	1.6	NO	0.998	NO	bb
2	180114M1_2	Standard	0.500	6.47	155.693	1324.833	0.588	0.6	11.2	NO	0.998	NO	bb
3	180114M1_3	Standard	1.000	6.46	292.503	1804.456	0.811	0.8	-20.6	NO	0.998	NO	bb
4	180114M1_4	Standard	2.000	6.46	603.794	1677.991	1.799	1.8	-7.6	NO	0.998	NO	bb
5	180114M1_5	Standard	5.000	6.45	1786.034	1683.883	5.303	5.6	12.0	NO	0.998	NO	bb
6	180114M1_6	Standard	10.000	6.45	3168.905	1592.045	9.952	10.6	6.1	NO	0.998	NO	bb
7	180114M1_7	Standard	50.000	6.45	13665.340	1563.429	43.703	48.2	-3.5	NO	0.998	NO	bb
8	180114M1_8	Standard	100.000	6.45	29897.400	1710.092	87.415	100.9	0.9	NO	0.998	NO	bb

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: PFODA**

Coefficient of Determination: R<sup>2</sup> = 0.999427

Calibration curve: -0.00146894 \* x<sup>2</sup> + 0.987634 \* x + -0.0538913

Response type: Internal Std ( Ref 51 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Include, 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 180114M1_1	Standard	0.250	6.73	49.562	1259.462	0.197	0.3	1.6	NO	0.999	NO	MM
2	2 180114M1_2	Standard	0.500	6.73	110.328	1324.833	0.416	0.5	-4.7	NO	0.999	NO	bb
3	3 180114M1_3	Standard	1.000	6.72	323.203	1804.456	0.896	1.0	-3.7	NO	0.999	NO	bb
4	4 180114M1_4	Standard	2.000	6.71	545.935	1677.991	1.627	1.7	-14.7	NO	0.999	NO	bb
5	5 180114M1_5	Standard	5.000	6.71	1589.412	1683.883	4.719	4.9	-2.6	NO	0.999	NO	bb
6	6 180114M1_6	Standard	10.000	6.71	3117.084	1592.045	9.790	10.1	1.2	NO	0.999	NO	bb
7	7 180114M1_7	Standard	50.000	6.71	14499.442	1563.429	46.371	50.9	1.7	NO	0.999	NO	bb
8	8 180114M1_8	Standard	100.000	6.71	28614.531	1710.092	83.664	99.5	-0.5	NO	0.999	NO	bb

**Compound name: N-MeFOSE**

Correlation coefficient: r = 0.996233, r<sup>2</sup> = 0.992481

Calibration curve: 1.14152 \* x + -0.140648

Response type: Internal Std ( Ref 52 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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 180114M1_1	Standard	1.250	6.44	66.552	7869.949	1.268	1.2	-1.2	NO	0.992	NO	bbX
2	2 180114M1_2	Standard	2.500	6.44	326.595	15028.852	3.260	3.0	19.2	NO	0.992	NO	bb
3	3 180114M1_3	Standard	5.000	6.43	633.853	17803.043	5.341	4.8	-4.0	NO	0.992	NO	bb
4	4 180114M1_4	Standard	10.000	6.43	1208.495	18520.922	9.788	8.7	-13.0	NO	0.992	NO	bb
5	5 180114M1_5	Standard	25.000	6.43	3227.090	18115.793	26.721	23.5	-5.9	NO	0.992	NO	bb
6	6 180114M1_6	Standard	50.000	6.43	7053.091	16859.029	62.754	55.1	10.2	NO	0.992	NO	bb
7	7 180114M1_7	Standard	250.000	6.43	30057.412	17944.828	251.249	220.2	-11.9	NO	0.992	NO	bb
8	8 180114M1_8	Standard	500.000	6.43	65726.547	16387.014	601.634	527.2	5.4	NO	0.992	NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time  
 Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: N-EtFOSE**

Correlation coefficient:  $r = 0.999829$ ,  $r^2 = 0.999658$

Calibration curve:  $1.26852 * x + -0.111988$

Response type: Internal Std ( Ref 53 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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 180114M1_1	Standard	1.250	6.59	68.801	6029.012	1.712	1.4	15.0	NO	1.000	NO	bbX
2	2 180114M1_2	Standard	2.500	6.59	297.298	13869.331	3.215	2.6	4.9	NO	1.000	NO	bb
3	3 180114M1_3	Standard	5.000	6.58	612.203	15938.377	5.762	4.6	-7.4	NO	1.000	NO	bb
4	4 180114M1_4	Standard	10.000	6.58	1271.909	15460.814	12.340	9.8	-1.8	NO	1.000	NO	bb
5	5 180114M1_5	Standard	25.000	6.58	3414.765	16420.498	31.194	24.7	-1.3	NO	1.000	NO	bb
6	6 180114M1_6	Standard	50.000	6.58	7046.067	15833.701	66.751	52.7	5.4	NO	1.000	NO	bb
7	7 180114M1_7	Standard	250.000	6.58	33836.492	15829.665	320.631	252.8	1.1	NO	1.000	NO	bb
8	8 180114M1_8	Standard	500.000	6.58	67335.586	16082.061	628.050	495.2	-1.0	NO	1.000	NO	bb

**Compound name: 13C3-PFBA**

Response Factor: 0.789861

RRF SD: 0.03458, Relative SD: 4.37798

Response type: Internal Std ( Ref 54 ), 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 180114M1_1	Standard	12.500	1.37	3626.099	4521.253	10.025	12.7	1.5	NO		NO	bb
2	2 180114M1_2	Standard	12.500	1.47	4142.458	5177.300	10.001	12.7	1.3	NO		NO	db
3	3 180114M1_3	Standard	12.500	1.48	4653.577	5888.580	9.878	12.5	0.1	NO		NO	db
4	4 180114M1_4	Standard	12.500	1.45	4077.286	5277.585	9.657	12.2	-2.2	NO		NO	db
5	5 180114M1_5	Standard	12.500	1.47	4270.448	5737.021	9.305	11.8	-5.8	NO		NO	db
6	6 180114M1_6	Standard	12.500	1.46	4150.907	5292.935	9.803	12.4	-0.7	NO		NO	db
7	7 180114M1_7	Standard	12.500	1.45	4293.536	4986.576	10.763	13.6	9.0	NO		NO	db
8	8 180114M1_8	Standard	12.500	1.44	3527.442	4615.271	9.554	12.1	-3.2	NO		NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time  
 Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: 13C3-PFPeA**

Response Factor: 0.808707

RRF SD: 0.0430151, Relative SD: 5.31899

Response type: Internal Std ( Ref 55 ), 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	180114M1_1	Standard	12.500	2.27	7627.178	9210.972	10.351	12.8	2.4	NO		NO	MMX
2	180114M1_2	Standard	12.500	2.38	8186.502	10089.155	10.143	12.5	0.3	NO		NO	bb
3	180114M1_3	Standard	12.500	2.38	8937.973	11252.926	9.928	12.3	-1.8	NO		NO	bb
4	180114M1_4	Standard	12.500	2.37	7741.137	10699.900	9.043	11.2	-10.5	NO		NO	bb
5	180114M1_5	Standard	12.500	2.37	8589.766	9946.984	10.794	13.3	6.8	NO		NO	bb
6	180114M1_6	Standard	12.500	2.36	8111.649	9835.177	10.309	12.7	2.0	NO		NO	bb
7	180114M1_7	Standard	12.500	2.35	8074.398	9791.318	10.308	12.7	2.0	NO		NO	bb
8	180114M1_8	Standard	12.500	2.35	7382.000	9015.478	10.235	12.7	1.2	NO		NO	bb

**Compound name: 13C3-PFBS**

Response Factor: 0.096511

RRF SD: 0.00786237, Relative SD: 8.1466

Response type: Internal Std ( Ref 55 ), 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	180114M1_1	Standard	12.500	2.53	934.175	9210.972	1.268	13.1	5.1	NO		NO	bb
2	180114M1_2	Standard	12.500	2.62	890.167	10089.155	1.103	11.4	-8.6	NO		NO	bb
3	180114M1_3	Standard	12.500	2.62	1034.113	11252.926	1.149	11.9	-4.8	NO		NO	bb
4	180114M1_4	Standard	12.500	2.61	890.175	10699.900	1.040	10.8	-13.8	NO		NO	bb
5	180114M1_5	Standard	12.500	2.61	1044.159	9946.984	1.312	13.6	8.8	NO		NO	bb
6	180114M1_6	Standard	12.500	2.60	970.681	9835.177	1.234	12.8	2.3	NO		NO	bb
7	180114M1_7	Standard	12.500	2.60	1017.077	9791.318	1.298	13.5	7.6	NO		NO	bb
8	180114M1_8	Standard	12.500	2.59	899.773	9015.478	1.248	12.9	3.4	NO		NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time  
 Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: 13C2-PFHxA**

Response Factor: 0.633461

RRF SD: 0.0630324, Relative SD: 9.95048

Response type: Internal Std ( Ref 55 ), 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	180114M1_1	Standard	5.000	3.00	2593.698	9210.972	3.520	5.6	11.1	NO		NO	bb
2	180114M1_2	Standard	5.000	3.03	2417.925	10089.155	2.996	4.7	-5.4	NO		NO	bb
3	180114M1_3	Standard	5.000	3.04	2496.623	11252.926	2.773	4.4	-12.4	NO		NO	bb
4	180114M1_4	Standard	5.000	3.02	2285.827	10699.900	2.670	4.2	-15.7	NO		NO	bb
5	180114M1_5	Standard	5.000	3.02	2659.516	9946.984	3.342	5.3	5.5	NO		NO	bb
6	180114M1_6	Standard	5.000	3.02	2659.548	9835.177	3.380	5.3	6.7	NO		NO	bb
7	180114M1_7	Standard	5.000	3.01	2547.623	9791.318	3.252	5.1	2.7	NO		NO	bb
8	180114M1_8	Standard	5.000	3.01	2455.493	9015.478	3.405	5.4	7.5	NO		NO	bb

**Compound name: 13C4-PFHpA**

Response Factor: 0.650534

RRF SD: 0.0664283, Relative SD: 10.2113

Response type: Internal Std ( Ref 55 ), 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	180114M1_1	Standard	12.500	3.57	6881.557	9210.972	9.339	14.4	14.8	NO		NO	bb
2	180114M1_2	Standard	12.500	3.58	5947.945	10089.155	7.369	11.3	-9.4	NO		NO	bb
3	180114M1_3	Standard	12.500	3.57	6964.397	11252.926	7.736	11.9	-4.9	NO		NO	bb
4	180114M1_4	Standard	12.500	3.56	5740.771	10699.900	6.707	10.3	-17.5	NO		NO	bb
5	180114M1_5	Standard	12.500	3.55	6804.188	9946.984	8.551	13.1	5.2	NO		NO	bb
6	180114M1_6	Standard	12.500	3.55	6758.660	9835.177	8.590	13.2	5.6	NO		NO	bb
7	180114M1_7	Standard	12.500	3.55	6731.813	9791.318	8.594	13.2	5.7	NO		NO	bb
8	180114M1_8	Standard	12.500	3.54	5891.095	9015.478	8.168	12.6	0.4	NO		NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time  
 Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: 18O2-PFHxS**

Response Factor: 0.325559

RRF SD: 0.0357919, Relative SD: 10.994

Response type: Internal Std ( Ref 56 ), 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 180114M1_1	Standard	12.500	3.71	737.179	2175.515	4.236	13.0	4.1	NO		NO	MM
2	2 180114M1_2	Standard	12.500	3.71	711.707	2176.997	4.087	12.6	0.4	NO		NO	MM
3	3 180114M1_3	Standard	12.500	3.70	884.671	3018.722	3.663	11.3	-10.0	NO		NO	MM
4	4 180114M1_4	Standard	12.500	3.70	730.128	2390.356	3.818	11.7	-6.2	NO		NO	MM
5	5 180114M1_5	Standard	12.500	3.69	723.937	2228.038	4.062	12.5	-0.2	NO		NO	MM
6	6 180114M1_6	Standard	12.500	3.69	799.959	2721.157	3.675	11.3	-9.7	NO		NO	bb
7	7 180114M1_7	Standard	12.500	3.68	918.361	2269.660	5.058	15.5	24.3	NO		NO	bb
8	8 180114M1_8	Standard	12.500	3.68	725.783	2291.941	3.958	12.2	-2.7	NO		NO	MM

**Compound name: 13C2-6:2 FTS**

Response Factor: 0.170535

RRF SD: 0.0270675, Relative SD: 15.8721

Response type: Internal Std ( Ref 57 ), 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 180114M1_1	Standard	12.500	4.02	1996.372	10472.973	2.383	14.0	11.8	NO		NO	bb
2	2 180114M1_2	Standard	12.500	4.03	1495.703	9606.144	1.946	11.4	-8.7	NO		NO	bb
3	3 180114M1_3	Standard	12.500	4.02	1626.136	11842.083	1.716	10.1	-19.5	NO		NO	bb
4	4 180114M1_4	Standard	12.500	4.01	1735.917	9795.903	2.215	13.0	3.9	NO		NO	bb
5	5 180114M1_5	Standard	12.500	4.00	1683.943	10407.573	2.022	11.9	-5.1	NO		NO	bb
6	6 180114M1_6	Standard	12.500	4.00	1511.655	10876.848	1.737	10.2	-18.5	NO		NO	bb
7	7 180114M1_7	Standard	12.500	3.99	2228.404	10351.587	2.691	15.8	26.2	NO		NO	bb
8	8 180114M1_8	Standard	12.500	3.99	1818.953	9707.305	2.342	13.7	9.9	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: 13C2-PFOA**

Response Factor: 0.903494

RRF SD: 0.0722223, Relative SD: 7.99366

Response type: Internal Std ( Ref 57 ), 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 180114M1_1	Standard	12.500	4.11	8707.114	10472.973	10.392	11.5	-8.0	NO		NO	bb
2	2 180114M1_2	Standard	12.500	4.11	9668.123	9606.144	12.581	13.9	11.4	NO		NO	bb
3	3 180114M1_3	Standard	12.500	4.10	11837.389	11842.083	12.495	13.8	10.6	NO		NO	bb
4	4 180114M1_4	Standard	12.500	4.09	9123.959	9795.903	11.643	12.9	3.1	NO		NO	bb
5	5 180114M1_5	Standard	12.500	4.08	9599.560	10407.573	11.530	12.8	2.1	NO		NO	bb
6	6 180114M1_6	Standard	12.500	4.08	9220.297	10876.848	10.596	11.7	-6.2	NO		NO	bb
7	7 180114M1_7	Standard	12.500	4.07	8862.797	10351.587	10.702	11.8	-5.2	NO		NO	bb
8	8 180114M1_8	Standard	12.500	4.07	8084.847	9707.305	10.411	11.5	-7.8	NO		NO	bb

**Compound name: 13C5-PFNA**

Response Factor: 0.843898

RRF SD: 0.0785728, Relative SD: 9.3107

Response type: Internal Std ( Ref 58 ), 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 180114M1_1	Standard	12.500	4.58	10672.131	12992.061	10.268	12.2	-2.7	NO		NO	bb
2	2 180114M1_2	Standard	12.500	4.58	7959.980	9578.678	10.388	12.3	-1.5	NO		NO	bb
3	3 180114M1_3	Standard	12.500	4.57	9755.683	10428.236	11.694	13.9	10.9	NO		NO	bb
4	4 180114M1_4	Standard	12.500	4.56	8907.903	11171.644	9.967	11.8	-5.5	NO		NO	bb
5	5 180114M1_5	Standard	12.500	4.56	8863.639	11839.788	9.358	11.1	-11.3	NO		NO	bb
6	6 180114M1_6	Standard	12.500	4.55	8177.809	10148.734	10.072	11.9	-4.5	NO		NO	bb
7	7 180114M1_7	Standard	12.500	4.55	10143.640	10483.977	12.094	14.3	14.7	NO		NO	bb
8	8 180114M1_8	Standard	12.500	4.54	6660.756	8460.493	9.841	11.7	-6.7	NO		NO	bbX

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: 13C8-PFOA**

Response Factor: 0.165457

RRF SD: 0.0245251, Relative SD: 14.8226

Response type: Internal Std ( Ref 61 ), 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	180114M1_1	Standard	12.500	4.65	2131.943	12194.069	2.185	13.2	5.7	NO		NO	MMX
2	180114M1_2	Standard	12.500	4.65	1705.021	10256.481	2.078	12.6	0.5	NO		NO	bb
3	180114M1_3	Standard	12.500	4.64	1727.581	11023.619	1.959	11.8	-5.3	NO		NO	bb
4	180114M1_4	Standard	12.500	4.63	1645.980	12061.290	1.706	10.3	-17.5	NO		NO	bb
5	180114M1_5	Standard	12.500	4.62	1691.695	10339.285	2.045	12.4	-1.1	NO		NO	bb
6	180114M1_6	Standard	12.500	4.62	1621.123	10194.419	1.988	12.0	-3.9	NO		NO	bb
7	180114M1_7	Standard	12.500	4.61	1872.306	8886.922	2.634	15.9	27.3	NO		NO	bb
8	180114M1_8	Standard	12.500	4.61	1510.559	9725.023	1.942	11.7	-6.1	NO		NO	bbX

**Compound name: 13C8-PFOS**

Response Factor: 0.920205

RRF SD: 0.0697273, Relative SD: 7.57736

Response type: Internal Std ( Ref 59 ), 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	180114M1_1	Standard	12.500	4.66	2577.436	2969.778	10.849	11.8	-5.7	NO		NO	MM
2	180114M1_2	Standard	12.500	4.67	2178.322	2439.645	11.161	12.1	-3.0	NO		NO	bb
3	180114M1_3	Standard	12.500	4.66	2129.911	2524.730	10.545	11.5	-8.3	NO		NO	bb
4	180114M1_4	Standard	12.500	4.65	2219.514	2586.834	10.725	11.7	-6.8	NO		NO	bb
5	180114M1_5	Standard	12.500	4.64	2380.628	2405.455	12.371	13.4	7.5	NO		NO	bb
6	180114M1_6	Standard	12.500	4.63	2213.260	2234.363	12.382	13.5	7.6	NO		NO	bb
7	180114M1_7	Standard	12.500	4.63	2409.764	2412.649	12.485	13.6	8.5	NO		NO	bb
8	180114M1_8	Standard	12.500	4.62	2020.897	2545.754	9.923	10.8	-13.7	NO		NO	bbX

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: 13C2-PFDA**

Response Factor: 1.04437

RRF SD: 0.18473, Relative SD: 17.6882

Response type: Internal Std ( Ref 60 ), 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	180114M1_1	Standard	12.500	4.97	10273.528	9030.209	14.221	13.6	8.9	NO		NO	bb
2	180114M1_2	Standard	12.500	4.98	7666.422	6290.355	15.234	14.6	16.7	NO		NO	bb
3	180114M1_3	Standard	12.500	4.96	8011.753	7754.163	12.915	12.4	-1.1	NO		NO	bb
4	180114M1_4	Standard	12.500	4.96	8420.399	9446.257	11.143	10.7	-14.6	NO		NO	bb
5	180114M1_5	Standard	12.500	4.95	7078.627	8319.136	10.636	10.2	-18.5	NO		NO	bb
6	180114M1_6	Standard	12.500	4.95	7007.409	7269.614	12.049	11.5	-7.7	NO		NO	bb
7	180114M1_7	Standard	12.500	4.94	7914.971	5767.910	17.153	16.4	31.4	NO		NO	bb
8	180114M1_8	Standard	12.500	4.94	5872.147	6621.671	11.085	10.6	-15.1	NO		NO	bb

**Compound name: 13C2-8:2 FTS**

Response Factor: 0.0865412

RRF SD: 0.0116119, Relative SD: 13.4178

Response type: Internal Std ( Ref 55 ), 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	180114M1_1	Standard	12.500	4.93	1619.860	9210.972	2.198	25.4	103.2	NO		NO	bbX
2	180114M1_2	Standard	12.500	4.93	684.343	10089.155	0.848	9.8	-21.6	NO		NO	MM
3	180114M1_3	Standard	12.500	4.92	939.969	11252.926	1.044	12.1	-3.5	NO		NO	MM
4	180114M1_4	Standard	12.500	4.91	1008.736	10699.900	1.178	13.6	8.9	NO		NO	bb
5	180114M1_5	Standard	12.500	4.90	897.015	9946.984	1.127	13.0	4.2	NO		NO	bb
6	180114M1_6	Standard	12.500	4.90	952.935	9835.177	1.211	14.0	12.0	NO		NO	MM
7	180114M1_7	Standard	12.500	4.89	1216.973	9791.318	1.554	18.0	43.6	NO		NO	bbX
8	180114M1_8	Standard	12.500	4.89	1130.511	9015.478	1.567	18.1	44.9	NO		NO	bbX

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: d3-N-MeFOSAA**

Response Factor: 0.227278

RRF SD: 0.0360068, Relative SD: 15.8426

Response type: Internal Std ( Ref 61 ), 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	180114M1_1	Standard	12.500	5.12	2386.166	12194.069	2.446	10.8	-13.9	NO		NO	bb
2	180114M1_2	Standard	12.500	5.13	2679.466	10256.481	3.266	14.4	14.9	NO		NO	bb
3	180114M1_3	Standard	12.500	5.12	2887.384	11023.619	3.274	14.4	15.2	NO		NO	bb
4	180114M1_4	Standard	12.500	5.10	2460.522	12061.290	2.550	11.2	-10.2	NO		NO	bb
5	180114M1_5	Standard	12.500	5.10	2643.908	10339.285	3.196	14.1	12.5	NO		NO	bb
6	180114M1_6	Standard	12.500	5.09	1886.944	10194.419	2.314	10.2	-18.6	NO		NO	bb
7	180114M1_7	Standard	12.500	5.09	2602.104	8886.922	3.660	16.1	28.8	NO		NO	bbX
8	180114M1_8	Standard	12.500	5.08	2276.305	9725.023	2.926	12.9	3.0	NO		NO	bbX

**Compound name: d5-N-EtFOSAA**

Response Factor: 0.313398

RRF SD: 0.0570367, Relative SD: 18.1995

Response type: Internal Std ( Ref 61 ), 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	180114M1_1	Standard	12.500	5.30	2456.595	12194.069	2.518	8.0	-35.7	NO		NO	bbX
2	180114M1_2	Standard	12.500	5.31	3198.114	10256.481	3.898	12.4	-0.5	NO		NO	MM
3	180114M1_3	Standard	12.500	5.29	3229.057	11023.619	3.662	11.7	-6.5	NO		NO	MM
4	180114M1_4	Standard	12.500	5.29	2758.213	12061.290	2.859	9.1	-27.0	NO		NO	MM
5	180114M1_5	Standard	12.500	5.28	3064.781	10339.285	3.705	11.8	-5.4	NO		NO	MM
6	180114M1_6	Standard	12.500	5.28	3574.455	10194.419	4.383	14.0	11.9	NO		NO	MM
7	180114M1_7	Standard	12.500	5.27	3676.360	8886.922	5.171	16.5	32.0	NO		NO	bb
8	180114M1_8	Standard	12.500	5.27	2913.941	9725.023	3.745	12.0	-4.4	NO		NO	MM

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: 13C2-PFUdA**

Response Factor: 0.899251

RRF SD: 0.102619, Relative SD: 11.4116

Response type: Internal Std ( Ref 61 ), 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	180114M1_1	Standard	12.500	5.32	11952.269	12194.069	12.252	13.6	9.0	NO		NO	bb
2	180114M1_2	Standard	12.500	5.32	8142.762	10256.481	9.924	11.0	-11.7	NO		NO	bb
3	180114M1_3	Standard	12.500	5.31	9973.248	11023.619	11.309	12.6	0.6	NO		NO	bb
4	180114M1_4	Standard	12.500	5.30	9333.110	12061.290	9.673	10.8	-13.9	NO		NO	bb
5	180114M1_5	Standard	12.500	5.30	9466.337	10339.285	11.445	12.7	1.8	NO		NO	bb
6	180114M1_6	Standard	12.500	5.30	9079.952	10194.419	11.133	12.4	-1.0	NO		NO	bb
7	180114M1_7	Standard	12.500	5.29	9698.532	8886.922	13.642	15.2	21.4	NO		NO	bb
8	180114M1_8	Standard	12.500	5.28	8206.241	9725.023	10.548	11.7	-6.2	NO		NO	bb

**Compound name: 13C2-PFDoA**

Response Factor: 0.64508

RRF SD: 0.0871793, Relative SD: 13.5145

Response type: Internal Std ( Ref 61 ), 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	180114M1_1	Standard	12.500	5.62	7560.831	12194.069	7.751	12.0	-3.9	NO		NO	bbX
2	180114M1_2	Standard	12.500	5.62	6692.443	10256.481	8.156	12.6	1.2	NO		NO	bb
3	180114M1_3	Standard	12.500	5.61	7193.966	11023.619	8.157	12.6	1.2	NO		NO	bb
4	180114M1_4	Standard	12.500	5.61	7520.150	12061.290	7.794	12.1	-3.3	NO		NO	bb
5	180114M1_5	Standard	12.500	5.60	6317.912	10339.285	7.638	11.8	-5.3	NO		NO	bb
6	180114M1_6	Standard	12.500	5.60	5426.459	10194.419	6.654	10.3	-17.5	NO		NO	bb
7	180114M1_7	Standard	12.500	5.59	7096.452	8886.922	9.982	15.5	23.8	NO		NO	bb
8	180114M1_8	Standard	12.500	5.59	5518.140	9725.023	7.093	11.0	-12.0	NO		NO	bbX

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: d3-N-MeFOSA**

Response Factor: 0.121935

RRF SD: 0.0130269, Relative SD: 10.6835

Response type: Internal Std ( Ref 61 ), 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 180114M1_1	Standard	150.000	5.96	8791.715	12194.069	9.012	73.9	-50.7	NO		NO	bbX
2	2 180114M1_2	Standard	150.000	5.97	14062.988	10256.481	17.139	140.6	-6.3	NO		NO	bb
3	3 180114M1_3	Standard	150.000	5.95	16152.640	11023.619	18.316	150.2	0.1	NO		NO	bb
4	4 180114M1_4	Standard	150.000	5.95	14597.956	12061.290	15.129	124.1	-17.3	NO		NO	bb
5	5 180114M1_5	Standard	150.000	5.95	15082.849	10339.285	18.235	149.5	-0.3	NO		NO	bb
6	6 180114M1_6	Standard	150.000	5.94	14954.120	10194.419	18.336	150.4	0.3	NO		NO	bb
7	7 180114M1_7	Standard	150.000	5.94	15302.427	8886.922	21.524	176.5	17.7	NO		NO	bb
8	8 180114M1_8	Standard	150.000	5.94	15056.446	9725.023	19.353	158.7	5.8	NO		NO	bb

**Compound name: 13C2-PFTeDA**

Response Factor: 0.289852

RRF SD: 0.05135, Relative SD: 17.716

Response type: Internal Std ( Ref 61 ), 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 180114M1_1	Standard	12.500	6.12	2445.649	12194.069	2.507	8.6	-30.8	NO		NO	bb
2	2 180114M1_2	Standard	12.500	6.12	2977.955	10256.481	3.629	12.5	0.2	NO		NO	bb
3	3 180114M1_3	Standard	12.500	6.11	3643.180	11023.619	4.131	14.3	14.0	NO		NO	bb
4	4 180114M1_4	Standard	12.500	6.10	3315.638	12061.290	3.436	11.9	-5.2	NO		NO	bb
5	5 180114M1_5	Standard	12.500	6.10	3058.884	10339.285	3.698	12.8	2.1	NO		NO	bb
6	6 180114M1_6	Standard	12.500	6.09	2549.694	10194.419	3.126	10.8	-13.7	NO		NO	bb
7	7 180114M1_7	Standard	12.500	6.09	3307.861	8886.922	4.653	16.1	28.4	NO		NO	bb
8	8 180114M1_8	Standard	12.500	6.09	2959.760	9725.023	3.804	13.1	5.0	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: d5-N-ETFOSA**

Response Factor: 0.131454

RRF SD: 0.0147792, Relative SD: 11.2428

Response type: Internal Std ( Ref 61 ), 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	180114M1_1	Standard	150.000	6.35	7003.886	12194.069	7.180	54.6	-63.6	NO		NO	bbX
2	180114M1_2	Standard	150.000	6.36	14916.356	10256.481	18.179	138.3	-7.8	NO		NO	bb
3	180114M1_3	Standard	150.000	6.35	17570.045	11023.619	19.923	151.6	1.0	NO		NO	bb
4	180114M1_4	Standard	150.000	6.35	15895.931	12061.290	16.474	125.3	-16.5	NO		NO	bb
5	180114M1_5	Standard	150.000	6.35	15906.663	10339.285	19.231	146.3	-2.5	NO		NO	bb
6	180114M1_6	Standard	150.000	6.35	16634.855	10194.419	20.397	155.2	3.4	NO		NO	bb
7	180114M1_7	Standard	150.000	6.34	16833.201	8886.922	23.677	180.1	20.1	NO		NO	bb
8	180114M1_8	Standard	150.000	6.34	15673.545	9725.023	20.146	153.3	2.2	NO		NO	bb

**Compound name: 13C2-PFHxDA**

Response Factor: 0.376896

RRF SD: 0.0631103, Relative SD: 16.7447

Response type: Internal Std ( Ref 61 ), 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	180114M1_1	Standard	5.000	6.47	1259.462	12194.069	1.291	3.4	-31.5	NO		NO	bb
2	180114M1_2	Standard	5.000	6.47	1324.833	10256.481	1.615	4.3	-14.3	NO		NO	bb
3	180114M1_3	Standard	5.000	6.46	1804.456	11023.619	2.046	5.4	8.6	NO		NO	bb
4	180114M1_4	Standard	5.000	6.46	1677.991	12061.290	1.739	4.6	-7.7	NO		NO	bb
5	180114M1_5	Standard	5.000	6.46	1683.883	10339.285	2.036	5.4	8.0	NO		NO	bb
6	180114M1_6	Standard	5.000	6.45	1592.045	10194.419	1.952	5.2	3.6	NO		NO	bb
7	180114M1_7	Standard	5.000	6.45	1563.429	8886.922	2.199	5.8	16.7	NO		NO	bb
8	180114M1_8	Standard	5.000	6.45	1710.092	9725.023	2.198	5.8	16.6	NO		NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time  
 Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: d7-N-MeFOSE**

Response Factor: 0.139595  
 RRF SD: 0.0149078, Relative SD: 10.6793  
 Response type: Internal Std ( Ref 61 ), 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	180114M1_1	Standard	150.000	6.43	7869.949	12194.069	8.067	57.8	-61.5	NO		NO	bbX
2	180114M1_2	Standard	150.000	6.43	15028.852	10256.481	18.316	131.2	-12.5	NO		NO	bb
3	180114M1_3	Standard	150.000	6.43	17803.043	11023.619	20.187	144.6	-3.6	NO		NO	bb
4	180114M1_4	Standard	150.000	6.42	18520.922	12061.290	19.195	137.5	-8.3	NO		NO	bb
5	180114M1_5	Standard	150.000	6.42	18115.793	10339.285	21.902	156.9	4.6	NO		NO	bb
6	180114M1_6	Standard	150.000	6.42	16859.029	10194.419	20.672	148.1	-1.3	NO		NO	bb
7	180114M1_7	Standard	150.000	6.42	17944.828	8886.922	25.240	180.8	20.5	NO		NO	bb
8	180114M1_8	Standard	150.000	6.42	16387.014	9725.023	21.063	150.9	0.6	NO		NO	bb

**Compound name: d9-N-EtFOSE**

Response Factor: 0.126859  
 RRF SD: 0.0145207, Relative SD: 11.4463  
 Response type: Internal Std ( Ref 61 ), 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	180114M1_1	Standard	150.000	6.58	6029.012	12194.069	6.180	48.7	-67.5	NO		NO	bbX
2	180114M1_2	Standard	150.000	6.58	13869.331	10256.481	16.903	133.2	-11.2	NO		NO	bb
3	180114M1_3	Standard	150.000	6.57	15938.377	11023.619	18.073	142.5	-5.0	NO		NO	bb
4	180114M1_4	Standard	150.000	6.57	15460.814	12061.290	16.023	126.3	-15.8	NO		NO	bb
5	180114M1_5	Standard	150.000	6.57	16420.498	10339.285	19.852	156.5	4.3	NO		NO	bb
6	180114M1_6	Standard	150.000	6.57	15833.701	10194.419	19.415	153.0	2.0	NO		NO	bb
7	180114M1_7	Standard	150.000	6.57	15829.665	8886.922	22.265	175.5	17.0	NO		NO	bb
8	180114M1_8	Standard	150.000	6.57	16082.061	9725.023	20.671	162.9	8.6	NO		NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time  
 Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: 13C4-PFBA**

Response Factor: 1  
 RRF SD: 0, Relative SD: 0  
 Response type: Internal Std ( Ref 54 ), 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 180114M1_1	Standard	12.500	1.37	4521.253	4521.253	12.500	12.5	0.0	NO		NO	bb
2	2 180114M1_2	Standard	12.500	1.48	5177.300	5177.300	12.500	12.5	0.0	NO		NO	db
3	3 180114M1_3	Standard	12.500	1.48	5888.580	5888.580	12.500	12.5	0.0	NO		NO	db
4	4 180114M1_4	Standard	12.500	1.45	5277.585	5277.585	12.500	12.5	0.0	NO		NO	db
5	5 180114M1_5	Standard	12.500	1.47	5737.021	5737.021	12.500	12.5	0.0	NO		NO	db
6	6 180114M1_6	Standard	12.500	1.45	5292.935	5292.935	12.500	12.5	0.0	NO		NO	db
7	7 180114M1_7	Standard	12.500	1.45	4986.576	4986.576	12.500	12.5	0.0	NO		NO	db
8	8 180114M1_8	Standard	12.500	1.44	4615.271	4615.271	12.500	12.5	0.0	NO		NO	bb

**Compound name: 13C5-PFHxA**

Response Factor: 1  
 RRF SD: 0, Relative SD: 0  
 Response type: Internal Std ( Ref 55 ), 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 180114M1_1	Standard	12.500	3.00	9210.972	9210.972	12.500	12.5	0.0	NO		NO	bb
2	2 180114M1_2	Standard	12.500	3.03	10089.155	10089.155	12.500	12.5	0.0	NO		NO	bb
3	3 180114M1_3	Standard	12.500	3.04	11252.926	11252.926	12.500	12.5	0.0	NO		NO	bb
4	4 180114M1_4	Standard	12.500	3.02	10699.900	10699.900	12.500	12.5	0.0	NO		NO	MM
5	5 180114M1_5	Standard	12.500	3.02	9946.984	9946.984	12.500	12.5	0.0	NO		NO	bb
6	6 180114M1_6	Standard	12.500	3.01	9835.177	9835.177	12.500	12.5	0.0	NO		NO	MM
7	7 180114M1_7	Standard	12.500	3.01	9791.318	9791.318	12.500	12.5	0.0	NO		NO	MM
8	8 180114M1_8	Standard	12.500	3.01	9015.478	9015.478	12.500	12.5	0.0	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: 13C3-PFHxS**

Response Factor: 1

RRF SD: 4.19625e-017, Relative SD: 4.19625e-015

Response type: Internal Std ( Ref 56 ), 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	180114M1_1	Standard	12.500	3.71	2175.515	2175.515	12.500	12.5	0.0	NO		NO	bb
2	180114M1_2	Standard	12.500	3.71	2176.997	2176.997	12.500	12.5	0.0	NO		NO	bb
3	180114M1_3	Standard	12.500	3.70	3018.722	3018.722	12.500	12.5	0.0	NO		NO	bb
4	180114M1_4	Standard	12.500	3.70	2390.356	2390.356	12.500	12.5	0.0	NO		NO	bb
5	180114M1_5	Standard	12.500	3.69	2228.038	2228.038	12.500	12.5	0.0	NO		NO	bb
6	180114M1_6	Standard	12.500	3.68	2721.157	2721.157	12.500	12.5	0.0	NO		NO	bb
7	180114M1_7	Standard	12.500	3.68	2269.660	2269.660	12.500	12.5	0.0	NO		NO	bb
8	180114M1_8	Standard	12.500	3.68	2291.941	2291.941	12.500	12.5	0.0	NO		NO	bb

**Compound name: 13C8-PFOA**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 57 ), 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	180114M1_1	Standard	12.500	4.11	10472.973	10472.973	12.500	12.5	0.0	NO		NO	bb
2	180114M1_2	Standard	12.500	4.11	9606.144	9606.144	12.500	12.5	0.0	NO		NO	bb
3	180114M1_3	Standard	12.500	4.10	11842.083	11842.083	12.500	12.5	0.0	NO		NO	bb
4	180114M1_4	Standard	12.500	4.09	9795.903	9795.903	12.500	12.5	0.0	NO		NO	bb
5	180114M1_5	Standard	12.500	4.08	10407.573	10407.573	12.500	12.5	0.0	NO		NO	bb
6	180114M1_6	Standard	12.500	4.08	10876.848	10876.848	12.500	12.5	0.0	NO		NO	bb
7	180114M1_7	Standard	12.500	4.07	10351.587	10351.587	12.500	12.5	0.0	NO		NO	bb
8	180114M1_8	Standard	12.500	4.07	9707.305	9707.305	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: 13C9-PFNA**

Response Factor: 1

RRF SD: 5.93439e-017, Relative SD: 5.93439e-015

Response type: Internal Std ( Ref 58 ), 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 180114M1_1	Standard	12.500	4.58	12992.061	12992.061	12.500	12.5	0.0	NO		NO	bb
2	2 180114M1_2	Standard	12.500	4.59	9578.678	9578.678	12.500	12.5	0.0	NO		NO	bb
3	3 180114M1_3	Standard	12.500	4.57	10428.236	10428.236	12.500	12.5	0.0	NO		NO	bb
4	4 180114M1_4	Standard	12.500	4.56	11171.644	11171.644	12.500	12.5	0.0	NO		NO	bb
5	5 180114M1_5	Standard	12.500	4.56	11839.788	11839.788	12.500	12.5	0.0	NO		NO	bb
6	6 180114M1_6	Standard	12.500	4.55	10148.734	10148.734	12.500	12.5	0.0	NO		NO	bb
7	7 180114M1_7	Standard	12.500	4.54	10483.977	10483.977	12.500	12.5	0.0	NO		NO	bb
8	8 180114M1_8	Standard	12.500	4.54	8460.493	8460.493	12.500	12.5	0.0	NO		NO	bb

**Compound name: 13C4-PFOS**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 59 ), 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 180114M1_1	Standard	12.500	4.66	2969.778	2969.778	12.500	12.5	0.0	NO		NO	bb
2	2 180114M1_2	Standard	12.500	4.67	2439.645	2439.645	12.500	12.5	0.0	NO		NO	bb
3	3 180114M1_3	Standard	12.500	4.66	2524.730	2524.730	12.500	12.5	0.0	NO		NO	bb
4	4 180114M1_4	Standard	12.500	4.65	2586.834	2586.834	12.500	12.5	0.0	NO		NO	bb
5	5 180114M1_5	Standard	12.500	4.64	2405.455	2405.455	12.500	12.5	0.0	NO		NO	bb
6	6 180114M1_6	Standard	12.500	4.63	2234.363	2234.363	12.500	12.5	0.0	NO		NO	bb
7	7 180114M1_7	Standard	12.500	4.63	2412.649	2412.649	12.500	12.5	0.0	NO		NO	bb
8	8 180114M1_8	Standard	12.500	4.63	2545.754	2545.754	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time  
 Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

**Compound name: 13C6-PFDA**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 60 ), 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 180114M1_1	Standard	12.500	4.97	9030.209	9030.209	12.500	12.5	0.0	NO		NO	bb
2	2 180114M1_2	Standard	12.500	4.98	6290.355	6290.355	12.500	12.5	0.0	NO		NO	bb
3	3 180114M1_3	Standard	12.500	4.96	7754.163	7754.163	12.500	12.5	0.0	NO		NO	bb
4	4 180114M1_4	Standard	12.500	4.96	9446.257	9446.257	12.500	12.5	0.0	NO		NO	bb
5	5 180114M1_5	Standard	12.500	4.95	8319.136	8319.136	12.500	12.5	0.0	NO		NO	bb
6	6 180114M1_6	Standard	12.500	4.95	7269.614	7269.614	12.500	12.5	0.0	NO		NO	bb
7	7 180114M1_7	Standard	12.500	4.94	5767.910	5767.910	12.500	12.5	0.0	NO		NO	bb
8	8 180114M1_8	Standard	12.500	4.94	6621.671	6621.671	12.500	12.5	0.0	NO		NO	bb

**Compound name: 13C7-PFUdA**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 61 ), 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 180114M1_1	Standard	12.500	5.32	12194.069	12194.069	12.500	12.5	0.0	NO		NO	bb
2	2 180114M1_2	Standard	12.500	5.32	10256.481	10256.481	12.500	12.5	0.0	NO		NO	bb
3	3 180114M1_3	Standard	12.500	5.31	11023.619	11023.619	12.500	12.5	0.0	NO		NO	bb
4	4 180114M1_4	Standard	12.500	5.30	12061.290	12061.290	12.500	12.5	0.0	NO		NO	bb
5	5 180114M1_5	Standard	12.500	5.30	10339.285	10339.285	12.500	12.5	0.0	NO		NO	bb
6	6 180114M1_6	Standard	12.500	5.29	10194.419	10194.419	12.500	12.5	0.0	NO		NO	bb
7	7 180114M1_7	Standard	12.500	5.29	8886.922	8886.922	12.500	12.5	0.0	NO		NO	bb
8	8 180114M1_8	Standard	12.500	5.28	9725.023	9725.023	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818D.mdb 14 Jan 2018 14:14:32

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-14-18-FULL.cdb 15 Jan 2018 14:59:56

Name: 180114M1\_1, Date: 14-Jan-2018, Time: 13:30:44, ID: ST180114M1-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

#	Name	CoD	CoD Flag	%RSD
1	1 PFBA	0.9939	NO	
2	2 PFPeA	0.9967	NO	
3	3 PFBS	0.9983	NO	
4	4 PFHxA	0.9989	NO	
5	5 PFHpA	0.9929	NO	
6	6 L-PFHxS	0.9900	NO	
7	8 6:2 FTS	0.9957	NO	
8	9 L-PFOA	0.9993	NO	
9	11 PFHpS	0.9995	NO	
10	12 PFNA	0.9911	NO	
11	13 PFOSA	0.9943	NO	
12	14 L-PFOS	0.9923	NO	
13	16 PFDA	0.9930	NO	
14	17 8:2 FTS	0.9923	NO	
15	18 N-MeFOSAA	0.9969	NO	
16	19 N-EtFOSAA	0.9919	NO	
17	20 PFUdA	0.9916	NO	
18	21 PFDS	0.9936	NO	
19	22 PFDoA	0.9965	NO	
20	23 N-MeFOSA	0.9984	NO	
21	24 PFTTrDA	0.9970	NO	
22	25 PFTeDA	0.9987	NO	
23	26 N-EtFOSA	0.9974	NO	
24	27 PFHxDA	0.9984	NO	
25	28 PFODA	0.9994	NO	
26	29 N-MeFOSE	0.9925	NO	
27	30 N-EtFOSE	0.9997	NO	
28	31 13C3-PFBA		NO	4.378
29	32 13C3-PFPeA		NO	5.319
30	33 13C3-PFBS		NO	8.147
31	34 13C2-PFHxA		NO	9.950

Work Order 1701851

Dataset: U:\Q4.PRO\results\180114M1\180114M1-crv.qld

Last Altered: Monday, January 15, 2018 14:59:57 Pacific Standard Time

Printed: Monday, January 15, 2018 15:01:01 Pacific Standard Time

Name: 180114M1\_1, Date: 14-Jan-2018, Time: 13:30:44, ID: ST180114M1-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

#	Name	CoD	CoD Flag	%RSD
32	35 13C4-PFHpA		NO	10.211
33	36 18O2-PFHxS		NO	10.994
34	37 13C2-6:2 FTS		NO	15.872
35	38 13C2-PFOA		NO	7.994
36	39 13C5-PFNA		NO	9.311
37	40 13C8-PFOSA		NO	14.823
38	41 13C8-PFOS		NO	7.577
39	42 13C2-PFDA		NO	17.688
40	43 13C2-8:2 FTS		NO	13.418
41	44 d3-N-MeFOSAA		NO	15.843
42	45 d5-N-EtFOSAA		NO	18.199
43	46 13C2-PFUdA		NO	11.412
44	47 13C2-PFDoA		NO	13.514
45	48 d3-N-MeFOSA		NO	10.683
46	49 13C2-PFTeDA		NO	17.716
47	50 d5-N-ETFOSA		NO	11.243
48	51 13C2-PFHxDA		NO	16.745
49	52 d7-N-MeFOSE		NO	10.679
50	53 d9-N-EtFOSE		NO	11.446
51	54 13C4-PFBA		NO	0.000
52	55 13C5-PFHxA		NO	0.000
53	56 13C3-PFHxS		NO	0.000
54	57 13C8-PFOA		NO	0.000
55	58 13C9-PFNA		NO	0.000
56	59 13C4-PFOS		NO	0.000
57	60 13C6-PFDA		NO	0.000
58	61 13C7-PFUdA		NO	0.000

Dataset: Untitled

Last Altered: Monday, January 15, 2018 15:03:31 Pacific Standard Time

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Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818D.mdb 15 Jan 2018 12:58:53

Calibration: 15 Jan 2018 15:03:31

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180114M1_1	ST180114M1-1 PFC CS-2 17L2606	14-Jan-18	13:30:44
2	180114M1_2	ST180114M1-2 PFC CS-1 17L2607	14-Jan-18	13:42:02
3	180114M1_3	ST180114M1-3 PFC CS0 17L2608	14-Jan-18	13:53:10
4	180114M1_4	ST180114M1-4 PFC CS1 17L2609	14-Jan-18	14:04:21
5	180114M1_5	ST180114M1-5 PFC CS2 17L2610	14-Jan-18	14:15:32
6	180114M1_6	ST180114M1-6 PFC CS3 17L2611	14-Jan-18	14:26:42
7	180114M1_7	ST180114M1-7 PFC CS4 17L1208	14-Jan-18	14:37:53
8	180114M1_8	ST180114M1-8 PFC CS5 17L2613	14-Jan-18	14:49:04
9	180114M1_9	IPA	14-Jan-18	15:00:15
10	180114M1_11	ICV180114M1-1 PFC ICV 17L1201	14-Jan-18	15:11:29
11	180114M1_12	IPA	14-Jan-18	15:31:46

Dataset: U:\Q4.PRO\results\180114M1\180114M1-11.qld

Ⓢ Not present in SS

Last Altered: Monday, January 15, 2018 15:09:12 Pacific Standard Time

Printed: Monday, January 15, 2018 15:11:46 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818D.mdb 15 Jan 2018 12:58:53

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-14-18-FULL.cdb 15 Jan 2018 14:59:56

Cr1015  
JHA-  
01/15/2018

Name: 180114M1\_11, Date: 14-Jan-2018, Time: 15:11:29, ID: ICV180114M1-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery	Out
1	1 PFBA	213.0 > 168.8	2.65e4	2.78e4		1.44	1.43	11.9	8.78	87.8	NO	70-130
2	2 PFPeA	263.1 > 218.9	2.81e4	3.32e4		2.37	2.34	10.6	8.86	88.6	NO	
3	3 PFBS	299.0 > 79.7	5.56e3	3.91e3		2.60	2.59	17.8	9.33	93.3	NO	
4	4 PFHxA	313.2 > 268.9	3.26e4	1.07e4		3.00	3.00	15.3	8.33	83.3	NO	
5	5 PFHpA	363.0 > 318.9	2.47e4	2.80e4		3.54	3.54	11.0	8.51	85.1	NO	
6	6 L-PFHxS	398.9 > 79.6	4.17e3	3.12e3		3.68	3.67	16.7	9.76	97.6	NO	
7	8 6:2 FTS	427.1 > 407	5.31e3	6.49e3		4.00	3.97	10.2	9.56	95.6	NO	
8	9 L-PFOA	413 > 368.7	3.20e4	4.09e4		4.07	4.06	9.78	8.07	80.7	NO	
9	11 PFHpS	449 > 80.0	7.15e3	4.09e4		4.20	4.18	2.19	8.70	87.0	NO	
10	12 PFNA	463.0 > 418.8	2.90e4	3.05e4		4.54	4.53	11.9	7.96	79.6	NO	
11	13 PFOSA	498.1 > 77.8	5.86e3	6.95e3		4.61	4.60	10.6	7.06	70.6	NO	
12	14 L-PFOS	499 > 79.9	6.95e3	9.49e3		4.63	4.62	9.16	7.66	76.6	NO	
13	16 PFDA	513 > 468.8	3.07e4	3.05e4		4.94	4.93	12.5	9.60	96.0	NO	
14	17 8:2 FTS	527 > 506.9	4.90e3	3.84e3		4.88	4.87	15.9	8.41	84.1	NO	
15	18 N-MeFOSAA	570.1 > 419	1.11e4	1.00e4		5.10	5.08	13.8	7.08	70.8	NO	
16	19 N-EtFOSAA	584.2 > 419	1.17e4	1.16e4		5.27	5.26	12.6	10.1	101.4	NO	
17	20 PFUdA	563.0 > 518.9	3.40e4	3.49e4		5.30	5.28	12.2	10.3	102.8	NO	
18	21 PFDS	598.8 > 80	6.82e3	3.49e4		5.33	5.32	2.44	7.12	71.2	NO	
19	22 PFDoA	612.9 > 569.0	3.52e4	1.87e4		5.60	5.58	23.5	9.16	91.6	NO	
20	23 N-MeFOSA	512.1 > 168.9		2.09e4		5.91					NO	
21	24 PFTTrDA	662.9 > 618.9	1.94e4	2.99e3		5.85	5.84	81.0	11.3	113.4	NO	
22	25 PFTeDA	712.9 > 668.8	5.33e3	2.99e3		6.10	6.08	22.3	8.21	82.1	NO	
23	26 N-EtFOSA	526.1 > 168.9		1.79e4		6.33					NO	
24	27 PFHxDA	813.1 > 768.6		9.74e2		6.45					NO	
25	28 PFOA	913.1 > 868.8		9.74e2		6.70					NO	
26	29 N-MeFOSE	616.1 > 58.9		4.17e4		6.43					NO	
27	30 N-EtFOSE	630.1 > 58.9		3.44e4		6.60					NO	
28	31 13C3-PFBA	216.1 > 171.8	2.78e4	3.25e4	0.790	1.44	1.43	10.7	13.5	108.4	NO	
29	32 13C3-PFPeA	266. > 221.8	3.32e4	3.17e4	0.809	2.35	2.34	13.1	16.2	129.5	NO	
30	33 13C3-PFBS	302. > 98.8	3.91e3	3.17e4	0.097	2.60	2.58	1.54	16.0	127.8	NO	
31	Work Order 180114M1-11 31 13C3-PFHxA	315 > 269.8	1.07e4	3.17e4	0.633	3.00	3.00	4.21	6.65	133.1	NO	

Dataset: U:\Q4.PRO\results\180114M1\180114M1-11.qld

Last Altered: Monday, January 15, 2018 15:09:12 Pacific Standard Time

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Name: 180114M1\_11, Date: 14-Jan-2018, Time: 15:11:29, ID: ICV180114M1-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc	%Rec	Recovery	Out
32	35	13C4-PFHpA	367.2 > 321.8	2.80e4	3.17e4	0.651	3.56	3.54	11.0	17.0	135.7	NO
33	36	18O2-PFHxS	403.0 > 102.6	3.12e3	8.73e3	0.326	3.68	3.67	4.47	13.7	109.9	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	6.49e3	3.70e4	0.171	4.00	3.98	2.19	12.9	102.8	NO
35	38	13C2-PFOA	414.9 > 369.7	4.09e4	3.70e4	0.903	4.07	4.06	13.8	15.3	122.2	NO
36	39	13C5-PFNA	468.2 > 422.9	3.05e4	3.21e4	0.844	4.54	4.53	11.9	14.1	112.5	NO
37	40	13C8-PFOA	506.1 > 77.7	6.95e3	3.03e4	0.165	4.61	4.60	2.86	17.3	138.4	NO
38	41	13C8-PFOS	507.0 > 79.9	9.49e3	9.76e3	0.920	4.62	4.62	12.2	13.2	105.7	NO
39	42	13C2-PFDA	515.1 > 469.9	3.05e4	2.43e4	1.044	4.82	4.93	15.7	15.0	120.4	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	3.84e3	3.17e4	0.087	4.89	4.87	1.51	17.5	139.8	NO
41	44	d3-N-MeFOSAA	573.3 > 419	1.00e4	3.03e4	0.227	5.08	5.08	4.13	18.2	145.5	NO
42	45	d5-N-EtFOSAA	589.3 > 419	1.16e4	3.03e4	0.313	5.27	5.26	4.80	15.3	122.4	NO
43	46	13C2-PFUdA	565 > 519.8	3.49e4	3.03e4	0.899	5.28	5.27	14.4	16.0	128.0	NO
44	47	13C2-PFDoA	615.0 > 569.7	1.87e4	3.03e4	0.645	5.60	5.58	7.72	12.0	95.7	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	2.09e4	3.03e4	0.122	5.94	5.94	8.60	70.5	47.0	YES
46	49	13C2-PFTeDA	714.8 > 669.6	2.99e3	3.03e4	0.290	6.10	6.08	1.23	4.25	34.0	YES
47	50	d5-N-ETFOSA	531.1 > 168.9	1.79e4	3.03e4	0.131	6.34	6.34	7.37	56.1	37.4	YES
48	51	13C2-PFHxDA	815 > 769.7	9.74e2	3.03e4	0.377	6.45	6.44	0.401	1.06	21.3	YES
49	52	d7-N-MeFOSE	623.1 > 58.9	4.17e4	3.03e4	0.140	6.42	6.42	17.2	123	82.1	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	3.44e4	3.03e4	0.127	6.57	6.57	14.2	112	74.6	NO
51	54	13C4-PFBA	217. > 171.8	3.25e4	3.25e4	1.000	1.44	1.43	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	3.17e4	3.17e4	1.000	3.00	3.01	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	8.73e3	8.73e3	1.000	3.68	3.67	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	3.70e4	3.70e4	1.000	4.07	4.06	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	3.21e4	3.21e4	1.000	4.54	4.53	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	9.76e3	9.76e3	1.000	4.63	4.62	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	2.43e4	2.43e4	1.000	4.94	4.93	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	3.03e4	3.03e4	1.000	5.28	5.27	12.5	12.5	100.0	NO

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

PFDS < 70% in ICV.

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
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Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_011518.mdb 15 Jan 2018 11:38:30  
 Calibration: U:\Q4.PRO\CurveDB\IC18\_VAL-PFAS\_Q4\_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

DC  
 1/16/18

**Compound name: PFBA**

Correlation coefficient:  $r = 0.998579$ ,  $r^2 = 0.997160$   
 Calibration curve:  $1.33977 * x + -0.0328732$   
 Response type: Internal Std ( Ref 31 ), Area \* ( IS Conc. / IS Area )  
 Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

JHA 01/16/2018

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	180115M2_1	Standard	0.250	1.53	169.362	8006.990	0.264	0.2	-11.2	NO	0.997	NO	bb
2	180115M2_2	Standard	0.500	1.53	462.377	8945.453	0.646	0.5	1.4	NO	0.997	NO	bb
3	180115M2_3	Standard	1.000	1.53	1135.743	11178.312	1.270	1.0	-2.8	NO	0.997	NO	bb
4	180115M2_4	Standard	2.000	1.53	2008.745	9860.501	2.546	1.9	-3.7	NO	0.997	NO	bb
5	180115M2_5	Standard	5.000	1.52	5607.313	10104.886	6.936	5.2	4.0	NO	0.997	NO	bb
6	180115M2_6	Standard	10.000	1.52	12518.734	10919.465	14.331	10.7	7.2	NO	0.997	NO	bb
7	180115M2_7	Standard	50.000	1.52	47957.504	9706.659	61.759	46.1	-7.8	NO	0.997	NO	bb
8	180115M2_8	Standard	100.000	1.52	99506.547	9008.640	138.071	103.1	3.1	NO	0.997	NO	bb

**Compound name: PFPeA**

Correlation coefficient:  $r = 0.997990$ ,  $r^2 = 0.995984$   
 Calibration curve:  $1.15515 * x + -0.0327357$   
 Response type: Internal Std ( Ref 32 ), Area \* ( IS Conc. / IS Area )  
 Curve type: Linear, Origin: Exclude, 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	180115M2_1	Standard	0.250	2.48	169.733	8868.418	0.239	0.2	-5.8	NO	0.996	NO	MM
2	180115M2_2	Standard	0.500	2.48	456.397	10441.303	0.546	0.5	0.3	NO	0.996	NO	MM
3	180115M2_3	Standard	1.000	2.48	1148.539	13027.811	1.102	1.0	-1.8	NO	0.996	NO	MM
4	180115M2_4	Standard	2.000	2.48	2044.792	11372.540	2.248	2.0	-1.3	NO	0.996	NO	MM
5	180115M2_5	Standard	5.000	2.48	5892.852	11971.679	6.153	5.4	7.1	NO	0.996	NO	MM
6	180115M2_6	Standard	10.000	2.48	12361.923	12510.149	12.352	10.7	7.2	NO	0.996	NO	MM
7	180115M2_7	Standard	50.000	2.48	46897.496	11201.616	52.333	45.3	-9.3	NO	0.996	NO	MM
8	180115M2_8	Standard	100.000	2.48	99353.172	10375.532	119.696	103.6	3.6	NO	0.996	NO	MM

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: PFBS**

Coefficient of Determination:  $R^2 = 0.996395$   
 Calibration curve:  $0.00351371 * x^2 + 1.85665 * x + 0.254875$   
 Response type: Internal Std ( Ref 33 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180115M2_1	Standard	0.250	2.75	57.475	1196.924	0.600	0.2	-25.6	NO	0.996	NO	MM
2	180115M2_2	Standard	0.500	2.75	97.312	1206.778	1.008	0.4	-18.9	NO	0.996	NO	bb
3	180115M2_3	Standard	1.000	2.75	267.604	1442.793	2.318	1.1	10.9	NO	0.996	NO	bb
4	180115M2_4	Standard	2.000	2.75	456.564	1290.825	4.421	2.2	11.7	NO	0.996	NO	bb
5	180115M2_5	Standard	5.000	2.74	1258.317	1432.762	10.978	5.7	14.3	NO	0.996	NO	bb
6	180115M2_6	Standard	10.000	2.75	2824.915	1624.717	21.734	11.3	13.3	NO	0.996	NO	bb
7	180115M2_7	Standard	50.000	2.75	9832.006	1307.205	94.017	46.4	-7.2	NO	0.996	NO	bb
8	180115M2_8	Standard	100.000	2.74	21516.695	1197.229	224.651	101.4	1.4	NO	0.996	NO	bb

**Compound name: PFHxA**

Correlation coefficient:  $r = 0.996265$ ,  $r^2 = 0.992544$   
 Calibration curve:  $1.75438 * x + 0.0169924$   
 Response type: Internal Std ( Ref 34 ), Area \* ( IS Conc. / IS Area )  
 Curve type: Linear, Origin: Exclude, 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	180115M2_1	Standard	0.250	3.25	306.921	2798.348	0.548	0.3	21.2	NO	0.993	NO	bb
2	180115M2_2	Standard	0.500	3.25	548.713	3301.620	0.831	0.5	-7.2	NO	0.993	NO	bb
3	180115M2_3	Standard	1.000	3.25	1388.564	4246.745	1.635	0.9	-7.8	NO	0.993	NO	bb
4	180115M2_4	Standard	2.000	3.25	2429.710	3760.921	3.230	1.8	-8.4	NO	0.993	NO	bb
5	180115M2_5	Standard	5.000	3.25	7106.033	3739.436	9.501	5.4	8.1	NO	0.993	NO	bb
6	180115M2_6	Standard	10.000	3.25	14392.021	4073.186	17.667	10.1	0.6	NO	0.993	NO	bb
7	180115M2_7	Standard	50.000	3.25	53584.609	3489.034	76.790	43.8	-12.5	NO	0.993	NO	bb
8	180115M2_8	Standard	100.000	3.24	123063.164	3308.405	185.986	106.0	6.0	NO	0.993	NO	bb

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Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

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**Compound name: PFHpA**

Correlation coefficient:  $r = 0.997692$ ,  $r^2 = 0.995389$

Calibration curve:  $1.49645 * x + -0.0592287$

Response type: Internal Std ( Ref 35 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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	180115M2_1	Standard	0.250	3.87	179.873	7169.426	0.314	0.2	-0.3	NO	0.995	NO	bb
2	180115M2_2	Standard	0.500	3.87	469.863	8300.460	0.708	0.5	2.5	NO	0.995	NO	bb
3	180115M2_3	Standard	1.000	3.87	1139.616	10064.894	1.415	1.0	-1.5	NO	0.995	NO	bb
4	180115M2_4	Standard	2.000	3.87	2080.912	8890.794	2.926	2.0	-0.3	NO	0.995	NO	bb
5	180115M2_5	Standard	5.000	3.87	5066.119	8790.349	7.204	4.9	-2.9	NO	0.995	NO	bb
6	180115M2_6	Standard	10.000	3.87	12529.151	9715.788	16.120	10.8	8.1	NO	0.995	NO	bb
7	180115M2_7	Standard	50.000	3.87	47028.797	8726.845	67.362	45.1	-9.9	NO	0.995	NO	bb
8	180115M2_8	Standard	100.000	3.86	101713.539	8149.912	156.004	104.3	4.3	NO	0.995	NO	bb

**Compound name: L-PFHxS**

Coefficient of Determination:  $R^2 = 0.999726$

Calibration curve:  $-0.0119577 * x^2 + 2.1128 * x + 0.0383417$

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Include, 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	180115M2_1	Standard	0.250	4.01	38.643	793.087	0.609	0.3	8.2	NO	1.000	NO	MM
2	180115M2_2	Standard	0.500	4.02	85.314	971.136	1.098	0.5	0.6	NO	1.000	NO	MM
3	180115M2_3	Standard	1.000	4.01	182.145	1035.130	2.200	1.0	2.9	NO	1.000	NO	MM
4	180115M2_4	Standard	2.000	4.01	349.074	1074.646	4.060	1.9	-3.8	NO	1.000	NO	MM
5	180115M2_5	Standard	5.000	4.01	873.617	1083.133	10.082	4.9	-2.2	NO	1.000	NO	MM
6	180115M2_6	Standard	10.000	4.01	1964.532	1211.424	20.271	10.2	1.6	NO	1.000	NO	MM
7	180115M2_7	Standard	50.000	4.01	6470.750	1067.766	75.751	50.0	-0.1	NO	1.000	NO	MM
8	180115M2_8	Standard	100.000	4.01	14751.116	1041.940	176.967			NO	1.000	NO	MMXI

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: 6:2 FTS**

Coefficient of Determination:  $R^2 = 0.995384$

Calibration curve:  $-0.00485621 * x^2 + 2.92773 * x + -0.123035$

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Include, 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	180115M2_1	Standard	0.250	4.32	28.815	793.087	0.454	0.2	-21.1	NO	0.995	NO	MM
2	180115M2_2	Standard	0.500	4.34	118.251	971.136	1.522	0.6	12.5	NO	0.995	NO	bb
3	180115M2_3	Standard	1.000	4.34	221.274	1035.130	2.672	1.0	-4.4	NO	0.995	NO	bb
4	180115M2_4	Standard	2.000	4.33	430.245	1074.646	5.004	1.8	-12.2	NO	0.995	NO	bb
5	180115M2_5	Standard	5.000	4.32	1149.229	1083.133	13.263	4.6	-7.9	NO	0.995	NO	bb
6	180115M2_6	Standard	10.000	4.33	3333.318	1211.424	34.395	12.0	20.3	NO	0.995	NO	bb
7	180115M2_7	Standard	50.000	4.33	10895.729	1067.766	127.553	47.3	-5.4	NO	0.995	NO	bb
8	180115M2_8	Standard	100.000	4.32	20578.084	1041.940	246.872	101.4	1.4	NO	0.995	NO	bb

**Compound name: L-PFOA**

Correlation coefficient:  $r = 0.997397$ ,  $r^2 = 0.994801$

Calibration curve:  $1.11967 * x + 0.355683$

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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	180115M2_1	Standard	0.250	4.38	600.230	11129.100	0.674	0.3	13.8	NO	0.995	NO	bb
2	180115M2_2	Standard	0.500	4.39	831.124	12054.782	0.862	0.5	-9.6	NO	0.995	NO	bb
3	180115M2_3	Standard	1.000	4.39	1444.660	13949.129	1.295	0.8	-16.1	NO	0.995	NO	bb
4	180115M2_4	Standard	2.000	4.38	2614.963	13294.508	2.459	1.9	-6.1	NO	0.995	NO	bb
5	180115M2_5	Standard	5.000	4.38	6889.996	12417.951	6.936	5.9	17.5	NO	0.995	NO	bb
6	180115M2_6	Standard	10.000	4.39	14997.181	15251.905	12.291	10.7	6.6	NO	0.995	NO	bb
7	180115M2_7	Standard	50.000	4.38	52255.660	12829.036	50.915	45.2	-9.7	NO	0.995	NO	bb
8	180115M2_8	Standard	100.000	4.38	105739.719	11359.297	116.358	103.6	3.6	NO	0.995	NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: PFHpS**

Coefficient of Determination:  $R^2 = 0.998980$   
 Calibration curve:  $-0.00141138 * x^2 + 0.29869 * x + -0.030036$   
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180115M2_1	Standard	0.250	4.49	37.480	11129.10C	0.042	0.2	-3.3	NO	0.999	NO	MM
2	180115M2_2	Standard	0.500	4.49	130.063	12054.782	0.135	0.6	10.7	NO	0.999	NO	bb
3	180115M2_3	Standard	1.000	4.49	279.276	13949.129	0.250	0.9	-5.7	NO	0.999	NO	bb
4	180115M2_4	Standard	2.000	4.49	558.214	13294.508	0.525	1.9	-6.3	NO	0.999	NO	bb
5	180115M2_5	Standard	5.000	4.48	1514.899	12417.951	1.525	5.3	6.8	NO	0.999	NO	bb
6	180115M2_6	Standard	10.000	4.49	3361.794	15251.905	2.755	9.8	-2.2	NO	0.999	NO	bb
7	180115M2_7	Standard	50.000	4.49	11679.672	12829.036	11.380	50.0	0.1	NO	0.999	NO	bb
8	180115M2_8	Standard	100.000	4.48	25926.199	11359.297	28.530			NO	0.999	NO	bbXI

**Compound name: PFNA**

Coefficient of Determination:  $R^2 = 0.998251$   
 Calibration curve:  $0.00123227 * x^2 + 1.35269 * x + -0.0256811$   
 Response type: Internal Std ( Ref 39 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180115M2_1	Standard	0.250	4.82	259.860	8611.178	0.377	0.3	19.1	NO	0.998	NO	bb
2	180115M2_2	Standard	0.500	4.82	449.605	10629.969	0.529	0.4	-18.1	NO	0.998	NO	bb
3	180115M2_3	Standard	1.000	4.82	1316.261	11370.316	1.447	1.1	8.8	NO	0.998	NO	bb
4	180115M2_4	Standard	2.000	4.81	2082.001	11056.825	2.354	1.8	-12.2	NO	0.998	NO	bb
5	180115M2_5	Standard	5.000	4.81	6798.414	13849.589	6.136	4.5	-9.3	NO	0.998	NO	bb
6	180115M2_6	Standard	10.000	4.81	15373.284	12422.833	15.469	11.3	13.4	NO	0.998	NO	bb
7	180115M2_7	Standard	50.000	4.81	56579.699	10235.261	69.099	48.9	-2.2	NO	0.998	NO	bb
8	180115M2_8	Standard	100.000	4.81	119351.391	10065.815	148.214	100.4	0.4	NO	0.998	NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: PFOSA**

Correlation coefficient:  $r = 0.999519$ ,  $r^2 = 0.999039$

Calibration curve:  $1.2051 * x + -0.0242098$

Response type: Internal Std ( Ref 40 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, 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	180115M2_1	Standard	0.250	4.87	37.636	2018.146	0.233	0.2	-14.6	NO	0.999	NO	MM
2	180115M2_2	Standard	0.500	4.88	105.176	2450.537	0.536	0.5	-6.9	NO	0.999	NO	bb
3	180115M2_3	Standard	1.000	4.88	323.306	3263.926	1.238	1.0	4.8	NO	0.999	NO	bb
4	180115M2_4	Standard	2.000	4.88	552.892	2580.329	2.678	2.2	12.1	NO	0.999	NO	bb
5	180115M2_5	Standard	5.000	4.87	1393.146	2747.783	6.338	5.3	5.6	NO	0.999	NO	bb
6	180115M2_6	Standard	10.000	4.88	3058.177	3176.006	12.036	10.0	0.1	NO	0.999	NO	bb
7	180115M2_7	Standard	50.000	4.88	11742.631	2461.930	59.621	49.5	-1.0	NO	0.999	NO	bb
8	180115M2_8	Standard	100.000	4.87	25960.203	1976.078	164.215	136.3	36.3	NO	0.999	NO	bbX

**Compound name: L-PFOS**

Coefficient of Determination:  $R^2 = 0.997719$

Calibration curve:  $0.000945797 * x^2 + 1.10838 * x + -0.0443788$

Response type: Internal Std ( Ref 41 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180115M2_1	Standard	0.250	4.89	39.696	2273.944	0.218	0.2	-5.3	NO	0.998	NO	MM
2	180115M2_2	Standard	0.500	4.90	100.584	2945.228	0.427	0.4	-15.0	NO	0.998	NO	MM
3	180115M2_3	Standard	1.000	4.89	310.652	3464.374	1.121	1.1	5.0	NO	0.998	NO	MM
4	180115M2_4	Standard	2.000	4.89	535.144	3222.043	2.076	1.9	-4.5	NO	0.998	NO	MM
5	180115M2_5	Standard	5.000	4.89	1476.891	2939.392	6.281	5.7	13.6	NO	0.998	NO	MM
6	180115M2_6	Standard	10.000	4.89	3408.097	3461.071	12.309	11.0	10.4	NO	0.998	NO	MM
7	180115M2_7	Standard	50.000	4.89	12781.024	2933.493	54.462	47.3	-5.5	NO	0.998	NO	MM
8	180115M2_8	Standard	100.000	4.89	23913.445	2455.447	121.737	101.1	1.1	NO	0.998	NO	MM

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: PFDA**

Coefficient of Determination: R<sup>2</sup> = 0.996672

Calibration curve: 0.0014094 \* x<sup>2</sup> + 1.42444 \* x + 0.0195565

Response type: Internal Std ( Ref 42 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180115M2_1	Standard	0.250	5.19	236.809	9117.220	0.325	0.2	-14.3	NO	0.997	NO	bb
2	180115M2_2	Standard	0.500	5.19	522.395	9259.429	0.705	0.5	-3.8	NO	0.997	NO	bb
3	180115M2_3	Standard	1.000	5.19	1297.286	10469.260	1.549	1.1	7.3	NO	0.997	NO	bb
4	180115M2_4	Standard	2.000	5.18	2358.456	11543.967	2.554	1.8	-11.2	NO	0.997	NO	bb
5	180115M2_5	Standard	5.000	5.18	6493.696	10095.664	8.040	5.6	12.0	NO	0.997	NO	bb
6	180115M2_6	Standard	10.000	5.19	13712.378	10322.235	16.605	11.5	15.1	NO	0.997	NO	bb
7	180115M2_7	Standard	50.000	5.19	49480.613	8868.471	69.742	46.8	-6.4	NO	0.997	NO	bb
8	180115M2_8	Standard	100.000	5.18	124944.242	9834.333	158.811	101.3	1.3	NO	0.997	NO	bb

**Compound name: 8:2 FTS**

Coefficient of Determination: R<sup>2</sup> = 0.990883

Calibration curve: -0.00290289 \* x<sup>2</sup> + 0.283311 \* x + -0.0505687

Response type: Internal Std ( Ref 42 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180115M2_1	Standard	0.250	5.16	13.774	9117.220	0.019	0.2	-1.7	NO	0.991	NO	MM
2	180115M2_2	Standard	0.500	5.16	45.840	9259.429	0.062	0.4	-20.3	NO	0.991	NO	MM
3	180115M2_3	Standard	1.000	5.16	258.452	10469.260	0.309	1.3	28.5	NO	0.991	NO	bb
4	180115M2_4	Standard	2.000	5.16	452.092	11543.967	0.490	1.9	-2.7	NO	0.991	NO	bb
5	180115M2_5	Standard	5.000	5.16	994.999	10095.664	1.232	4.8	-4.8	NO	0.991	NO	bb
6	180115M2_6	Standard	10.000	5.16	2080.582	10322.235	2.520	10.1	1.2	NO	0.991	NO	bb
7	180115M2_7	Standard	50.000	5.16	10637.392	8868.471	14.993			NO	0.991	YES	bbXI
8	180115M2_8	Standard	100.000	5.15	18031.459	9834.333	22.919			NO	0.991	YES	bbXI

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: N-MeFOSAA**

Coefficient of Determination: R<sup>2</sup> = 0.999579

Calibration curve: -0.00488709 \* x<sup>2</sup> + 1.70404 \* x + -0.0213461

Response type: Internal Std ( Ref 44 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Include, 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	180115M2_1	Standard	0.250	5.34	110.162	3668.057	0.375	0.2	-6.8	NO	1.000	NO	bb
2	180115M2_2	Standard	0.500	5.34	278.179	4068.198	0.855	0.5	3.0	NO	1.000	NO	bb
3	180115M2_3	Standard	1.000	5.34	608.335	4941.718	1.539	0.9	-8.2	NO	1.000	NO	bb
4	180115M2_4	Standard	2.000	5.33	1231.249	4259.577	3.613	2.1	7.3	NO	1.000	NO	bb
5	180115M2_5	Standard	5.000	5.33	3181.715	4700.651	8.461	5.1	1.0	NO	1.000	NO	bb
6	180115M2_6	Standard	10.000	5.34	6179.386	4734.263	16.316	9.9	-1.3	NO	1.000	NO	bb
7	180115M2_7	Standard	50.000	5.33	28100.633	4812.376	72.991	50.0	0.0	NO	1.000	NO	bb
8	180115M2_8	Standard	100.000	5.33	46974.879	4204.535	139.655	131.7	31.7	NO	1.000	NO	bbX

**Compound name: N-EtFOSAA**

Coefficient of Determination: R<sup>2</sup> = 0.999053

Calibration curve: -0.0014328 \* x<sup>2</sup> + 1.31318 \* x + -0.0721789

Response type: Internal Std ( Ref 45 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Include, 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	180115M2_1	Standard	0.250	5.49	100.263	4291.856	0.292	0.3	11.0	NO	0.999	NO	bb
2	180115M2_2	Standard	0.500	5.49	161.902	4807.261	0.421	0.4	-24.9	NO	0.999	NO	bb
3	180115M2_3	Standard	1.000	5.49	569.706	5925.357	1.202	1.0	-2.9	NO	0.999	NO	bb
4	180115M2_4	Standard	2.000	5.49	867.935	4489.890	2.416	1.9	-5.1	NO	0.999	NO	bb
5	180115M2_5	Standard	5.000	5.49	2512.091	5242.137	5.990	4.6	-7.2	NO	0.999	NO	bb
6	180115M2_6	Standard	10.000	5.49	6584.632	5935.848	13.866	10.7	7.4	NO	0.999	NO	bb
7	180115M2_7	Standard	50.000	5.49	21965.389	4444.999	61.770	49.8	-0.4	NO	0.999	NO	bb
8	180115M2_8	Standard	100.000	5.48	40613.773	4340.295	116.967	100.0	0.0	NO	0.999	NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qid

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: PFUdA**

Coefficient of Determination: R<sup>2</sup> = 0.996917

Calibration curve:  $-0.00723799 * x^2 + 1.36957 * x + -0.252476$

Response type: Internal Std ( Ref 46 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180115M2_1	Standard	0.250	5.51	291.033	10659.157	0.341	0.4	73.8	NO	0.997	NO	bbX
2	2 180115M2_2	Standard	0.500	5.51	541.356	12827.074	0.528	0.6	14.3	NO	0.997	NO	bb
3	3 180115M2_3	Standard	1.000	5.51	1323.581	14368.888	1.151	1.0	3.1	NO	0.997	NO	bb
4	4 180115M2_4	Standard	2.000	5.50	1949.719	12801.493	1.904	1.6	-20.6	NO	0.997	NO	bb
5	5 180115M2_5	Standard	5.000	5.50	5686.633	11208.095	6.342	4.9	-1.1	NO	0.997	NO	bb
6	6 180115M2_6	Standard	10.000	5.51	14467.421	13602.793	13.295	10.5	4.7	NO	0.997	NO	bb
7	7 180115M2_7	Standard	50.000	5.50	48741.223	12174.631	50.044	49.9	-0.3	NO	0.997	NO	bb
8	8 180115M2_8	Standard	100.000	5.50	109631.352	10688.771	128.209			NO	0.997	NO	bbXI

**Compound name: PFDS**

Coefficient of Determination: R<sup>2</sup> = 0.995370

Calibration curve:  $-0.00111201 * x^2 + 0.354642 * x + -0.0526574$

Response type: Internal Std ( Ref 46 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180115M2_1	Standard	0.250	5.55	49.403	10659.157	0.058	0.3	24.9	NO	0.995	NO	MM
2	2 180115M2_2	Standard	0.500	5.56	81.719	12827.074	0.080	0.4	-25.3	NO	0.995	NO	MM
3	3 180115M2_3	Standard	1.000	5.55	298.787	14368.888	0.260	0.9	-11.6	NO	0.995	NO	bb
4	4 180115M2_4	Standard	2.000	5.55	698.640	12801.493	0.682	2.1	4.3	NO	0.995	NO	bb
5	5 180115M2_5	Standard	5.000	5.55	1750.839	11208.095	1.953	5.8	15.2	NO	0.995	NO	bb
6	6 180115M2_6	Standard	10.000	5.55	3408.681	13602.793	3.132	9.2	-7.5	NO	0.995	NO	bb
7	7 180115M2_7	Standard	50.000	5.55	14534.954	12174.631	14.923	50.1	0.2	NO	0.995	NO	bb
8	8 180115M2_8	Standard	100.000	5.55	29850.322	10688.771	34.909			NO	0.995	NO	bbXI

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: PFDaA**

Coefficient of Determination:  $R^2 = 0.996448$   
 Calibration curve:  $0.00269229 * x^2 + 1.39884 * x + 0.292328$   
 Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180115M2_1	Standard	0.250	5.79	300.361	6851.029	0.548	0.2	-26.9	NO	0.996	NO	bd
2	180115M2_2	Standard	0.500	5.79	604.702	8538.500	0.885	0.4	-15.3	NO	0.996	NO	bd
3	180115M2_3	Standard	1.000	5.79	1422.547	10789.430	1.648	1.0	-3.3	NO	0.996	NO	bd
4	180115M2_4	Standard	2.000	5.78	2700.776	9022.085	3.742	2.5	22.7	NO	0.996	NO	bd
5	180115M2_5	Standard	5.000	5.78	7561.792	10734.802	8.805	6.0	20.3	NO	0.996	NO	bd
6	180115M2_6	Standard	10.000	5.78	15299.965	12215.312	15.657	10.8	7.6	NO	0.996	NO	bd
7	180115M2_7	Standard	50.000	5.78	57159.984	9999.913	71.451	46.7	-6.6	NO	0.996	NO	bb
8	180115M2_8	Standard	100.000	5.78	110208.867	8119.767	169.661	101.3	1.3	NO	0.996	NO	bd

**Compound name: N-MeFOSA**

Correlation coefficient:  $r = 0.999161$ ,  $r^2 = 0.998323$   
 Calibration curve:  $1.1181 * x + -0.100317$   
 Response type: Internal Std ( Ref 48 ), Area \* ( IS Conc. / IS Area )  
 Curve type: Linear, Origin: Include, 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	180115M2_1	Standard	1.250	5.84	138.791	15969.864	1.304	1.3	0.5	NO	0.998	NO	bb
2	180115M2_2	Standard	2.500	5.84	298.599	17622.953	2.542	2.4	-5.5	NO	0.998	NO	bb
3	180115M2_3	Standard	5.000	5.84	735.826	21395.508	5.159	4.7	-5.9	NO	0.998	NO	bb
4	180115M2_4	Standard	10.000	5.84	1273.874	18699.383	10.219	9.2	-7.7	NO	0.998	NO	bb
5	180115M2_5	Standard	25.000	5.84	3744.515	19396.660	28.957	26.0	4.0	NO	0.998	NO	bb
6	180115M2_6	Standard	50.000	5.84	8920.301	21606.223	61.929	55.5	11.0	NO	0.998	NO	bb
7	180115M2_7	Standard	250.000	5.84	31396.402	17688.914	266.238	238.2	-4.7	NO	0.998	NO	bb
8	180115M2_8	Standard	500.000	5.84	64370.148	17051.773	566.247	506.5	1.3	NO	0.998	NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: PFTrDA**

Coefficient of Determination: R<sup>2</sup> = 0.997156

Calibration curve: -0.000208194 \* x<sup>2</sup> + 2.13661 \* x + 0.0644742

Response type: Internal Std ( Ref 47 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180115M2_1	Standard	0.250	6.03	345.115	6851.029	0.630	0.3	5.8	NO	0.997	NO	bb
2	180115M2_2	Standard	0.500	6.03	831.761	8538.500	1.218	0.5	8.0	NO	0.997	NO	bb
3	180115M2_3	Standard	1.000	6.03	1617.529	10789.430	1.874	0.8	-15.3	NO	0.997	NO	bb
4	180115M2_4	Standard	2.000	6.03	3191.131	9022.085	4.421	2.0	2.0	NO	0.997	NO	bb
5	180115M2_5	Standard	5.000	6.03	7888.307	10734.802	9.185	4.3	-14.6	NO	0.997	NO	bb
6	180115M2_6	Standard	10.000	6.03	24356.207	12215.312	24.924	11.6	16.5	NO	0.997	NO	bb
7	180115M2_7	Standard	50.000	6.03	82605.594	9999.913	103.258	48.5	-2.9	NO	0.997	NO	bb
8	180115M2_8	Standard	100.000	6.03	138314.813	8119.767	212.929	100.6	0.6	NO	0.997	NO	bb

**Compound name: PFTeDA**

Coefficient of Determination: R<sup>2</sup> = 0.990929

Calibration curve: -0.0220572 \* x<sup>2</sup> + 3.53283 \* x + -0.322211

Response type: Internal Std ( Ref 49 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180115M2_1	Standard	0.250	6.24	230.708	3811.400	0.757	0.3	22.4	NO	0.991	NO	MM
2	180115M2_2	Standard	0.500	6.24	526.336	4625.902	1.422	0.5	-0.9	NO	0.991	NO	MM
3	180115M2_3	Standard	1.000	6.24	1174.005	5784.110	2.537	0.8	-18.7	NO	0.991	NO	MM
4	180115M2_4	Standard	2.000	6.23	2327.498	4166.997	6.982	2.1	4.7	NO	0.991	NO	bb
5	180115M2_5	Standard	5.000	6.23	5510.744	5054.189	13.629	4.1	-19.0	NO	0.991	NO	MM
6	180115M2_6	Standard	10.000	6.24	15163.117	5187.430	36.538	11.2	12.2	NO	0.991	NO	MM
7	180115M2_7	Standard	50.000	6.23	46221.027	4785.019	120.744	49.7	-0.6	NO	0.991	NO	bb
8	180115M2_8	Standard	100.000	6.23	113973.711	5518.160	258.179			NO	0.991	NO	bbXI

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: N-EtFOSA**

Coefficient of Determination:  $R^2 = 0.998672$   
 Calibration curve:  $7.78779e-006 * x^2 + 1.00573 * x + -0.161262$   
 Response type: Internal Std ( Ref 50 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180115M2_1	Standard	1.250	6.21	150.663	23192.393	0.974	1.1	-9.7	NO	0.999	NO	bb
2	180115M2_2	Standard	2.500	6.20	406.969	25547.748	2.389	2.5	1.4	NO	0.999	NO	bb
3	180115M2_3	Standard	5.000	6.20	1002.338	31434.623	4.783	4.9	-1.7	NO	0.999	NO	bb
4	180115M2_4	Standard	10.000	6.20	1755.511	27705.471	9.505	9.6	-3.9	NO	0.999	NO	bb
5	180115M2_5	Standard	25.000	6.20	5156.592	28494.203	27.145	27.1	8.6	NO	0.999	NO	bb
6	180115M2_6	Standard	50.000	6.21	11703.195	32255.756	54.424	54.3	8.5	NO	0.999	NO	bb
7	180115M2_7	Standard	250.000	6.21	40516.031	25211.236	241.059	239.4	-4.2	NO	0.999	NO	bb
8	180115M2_8	Standard	500.000	6.20	83391.828	24552.484	509.471	504.8	1.0	NO	0.999	NO	bb

**Compound name: PFHxDA**

Coefficient of Determination:  $R^2 = 0.994875$   
 Calibration curve:  $-0.000963947 * x^2 + 0.816406 * x + 0.115618$   
 Response type: Internal Std ( Ref 51 ), Area \* ( IS Conc. / IS Area )  
 Curve type: 2nd Order, Origin: Exclude, 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	180115M2_1	Standard	0.250	6.54	123.810	2113.428	0.293	0.2	-13.1	NO	0.995	NO	bb
2	180115M2_2	Standard	0.500	6.54	258.296	2775.093	0.465	0.4	-14.3	NO	0.995	NO	bb
3	180115M2_3	Standard	1.000	6.54	613.721	3282.116	0.935	1.0	0.5	NO	0.995	NO	bb
4	180115M2_4	Standard	2.000	6.54	951.224	2733.865	1.740	2.0	-0.3	NO	0.995	NO	bb
5	180115M2_5	Standard	5.000	6.54	2968.312	2890.199	5.135	6.2	23.9	NO	0.995	NO	bb
6	180115M2_6	Standard	10.000	6.54	5757.014	3217.573	8.946	11.0	9.6	NO	0.995	NO	bb
7	180115M2_7	Standard	50.000	6.54	23373.615	3292.356	35.497	45.8	-8.4	NO	0.995	NO	bb
8	180115M2_8	Standard	100.000	6.54	44946.250	3057.260	73.507	102.2	2.2	NO	0.995	NO	bb

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Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: PFODA**

Coefficient of Determination: R<sup>2</sup> = 0.998411

Calibration curve: -0.00110371 \* x<sup>2</sup> + 0.927917 \* x + 0.0174073

Response type: Internal Std ( Ref 51 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Include, 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	180115M2_1	Standard	0.250	6.77	115.014	2113.428	0.272	0.3	9.8	NO	0.998	NO	bb
2	180115M2_2	Standard	0.500	6.77	242.942	2775.093	0.438	0.5	-9.4	NO	0.998	NO	MM
3	180115M2_3	Standard	1.000	6.77	550.045	3282.116	0.838	0.9	-11.5	NO	0.998	NO	bb
4	180115M2_4	Standard	2.000	6.76	1100.954	2733.865	2.014	2.2	7.8	NO	0.998	NO	bb
5	180115M2_5	Standard	5.000	6.76	2821.314	2890.199	4.881	5.3	5.5	NO	0.998	NO	bb
6	180115M2_6	Standard	10.000	6.76	6417.821	3217.573	9.973	10.9	8.7	NO	0.998	NO	bb
7	180115M2_7	Standard	50.000	6.76	27476.373	3292.356	41.728	47.7	-4.7	NO	0.998	NO	bb
8	180115M2_8	Standard	100.000	6.76	50531.801	3057.260	82.642	101.2	1.2	NO	0.998	NO	bb

**Compound name: N-MeFOSE**

Coefficient of Determination: R<sup>2</sup> = 0.995669

Calibration curve: -0.000576302 \* x<sup>2</sup> + 1.20032 \* x + -0.665296

Response type: Internal Std ( Ref 52 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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	180115M2_1	Standard	1.250	6.30	174.170	20888.145	1.251	1.6	27.8	NO	0.996	NO	bb
2	180115M2_2	Standard	2.500	6.30	360.986	26082.570	2.076	2.3	-8.5	NO	0.996	NO	bb
3	180115M2_3	Standard	5.000	6.31	977.036	31250.859	4.690	4.5	-10.6	NO	0.996	NO	bb
4	180115M2_4	Standard	10.000	6.30	2180.307	29842.697	10.959	9.7	-2.7	NO	0.996	NO	bb
5	180115M2_5	Standard	25.000	6.30	6234.112	30325.629	30.836	26.6	6.3	NO	0.996	NO	bd
6	180115M2_6	Standard	50.000	6.30	11465.369	35709.676	48.161	41.5	-17.0	NO	0.996	NO	bd
7	180115M2_7	Standard	250.000	6.31	46049.070	24759.139	278.982	267.3	6.9	NO	0.996	NO	bb
8	180115M2_8	Standard	500.000	6.30	86639.500	28975.107	448.520	489.1	-2.2	NO	0.996	NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: N-EtFOSE**

Coefficient of Determination:  $R^2 = 0.999660$

Calibration curve:  $0.00097229 * x^2 + 1.15972 * x + 0.350902$

Response type: Internal Std ( Ref 53 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, 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 180115M2_1	Standard	1.250	6.45	222.976	22450.639	1.490	1.0	-21.5	NO	1.000	NO	bb
2	2 180115M2_2	Standard	2.500	6.46	541.090	21303.693	3.810	3.0	19.0	NO	1.000	NO	bb
3	3 180115M2_3	Standard	5.000	6.45	1251.249	31097.133	6.036	4.9	-2.4	NO	1.000	NO	bb
4	4 180115M2_4	Standard	10.000	6.45	2353.475	27869.063	12.667	10.5	5.3	NO	1.000	NO	bb
5	5 180115M2_5	Standard	25.000	6.45	5290.171	27858.053	28.485	23.8	-4.9	NO	1.000	NO	bb
6	6 180115M2_6	Standard	50.000	6.46	12232.546	28613.766	64.126	52.7	5.3	NO	1.000	NO	bd
7	7 180115M2_7	Standard	250.000	6.46	51195.125	22170.844	346.368	247.2	-1.1	NO	1.000	NO	bb
8	8 180115M2_8	Standard	500.000	6.45	111534.742	20270.486	825.348	501.0	0.2	NO	1.000	NO	bd

**Compound name: 13C3-PFBA**

Response Factor: 0.779165

RRF SD: 0.0334129, Relative SD: 4.2883

Response type: Internal Std ( Ref 54 ), 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 180115M2_1	Standard	12.500	1.53	8006.990	10061.779	9.947	12.8	2.1	NO		NO	bb
2	2 180115M2_2	Standard	12.500	1.52	8945.453	11662.093	9.588	12.3	-1.6	NO		NO	bb
3	3 180115M2_3	Standard	12.500	1.52	11178.312	14677.296	9.520	12.2	-2.3	NO		NO	bb
4	4 180115M2_4	Standard	12.500	1.52	9860.501	12356.659	9.975	12.8	2.4	NO		NO	bb
5	5 180115M2_5	Standard	12.500	1.52	10104.886	13477.931	9.372	12.0	-3.8	NO		NO	bb
6	6 180115M2_6	Standard	12.500	1.52	10919.465	14699.104	9.286	11.9	-4.7	NO		NO	bb
7	7 180115M2_7	Standard	12.500	1.52	9706.659	11470.707	10.578	13.6	8.6	NO		NO	bb
8	8 180115M2_8	Standard	12.500	1.52	9008.640	11668.103	9.651	12.4	-0.9	NO		NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qid

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: 13C3-PFPeA**

Response Factor: 0.796717  
 RRF SD: 0.0707195, Relative SD: 8.87636  
 Response type: Internal Std ( Ref 55 ), 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 180115M2_1	Standard	12.500	2.48	8868.418	12455.272	8.900	11.2	-10.6	NO		NO	bb
2	2 180115M2_2	Standard	12.500	2.48	10441.303	12561.499	10.390	13.0	4.3	NO		NO	bb
3	3 180115M2_3	Standard	12.500	2.48	13027.811	16767.305	9.712	12.2	-2.5	NO		NO	bb
4	4 180115M2_4	Standard	12.500	2.48	11372.540	14101.621	10.081	12.7	1.2	NO		NO	bb
5	5 180115M2_5	Standard	12.500	2.48	11971.679	15840.523	9.447	11.9	-5.1	NO		NO	bb
6	6 180115M2_6	Standard	12.500	2.48	12510.149	16157.200	9.678	12.1	-2.8	NO		NO	bb
7	7 180115M2_7	Standard	12.500	2.48	11201.616	11804.778	11.861	14.9	19.1	NO		NO	bb
8	8 180115M2_8	Standard	12.500	2.48	10375.532	13507.876	9.601	12.1	-3.6	NO		NO	bb

**Compound name: 13C3-PFBS**

Response Factor: 0.0950157  
 RRF SD: 0.00787595, Relative SD: 8.2891  
 Response type: Internal Std ( Ref 55 ), 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 180115M2_1	Standard	12.500	2.75	1196.924	12455.272	1.201	12.6	1.1	NO		NO	bb
2	2 180115M2_2	Standard	12.500	2.75	1206.778	12561.499	1.201	12.6	1.1	NO		NO	bb
3	3 180115M2_3	Standard	12.500	2.75	1442.793	16767.305	1.076	11.3	-9.4	NO		NO	bb
4	4 180115M2_4	Standard	12.500	2.75	1290.825	14101.621	1.144	12.0	-3.7	NO		NO	bb
5	5 180115M2_5	Standard	12.500	2.75	1432.762	15840.523	1.131	11.9	-4.8	NO		NO	bb
6	6 180115M2_6	Standard	12.500	2.75	1624.717	16157.200	1.257	13.2	5.8	NO		NO	bb
7	7 180115M2_7	Standard	12.500	2.75	1307.205	11804.778	1.384	14.6	16.5	NO		NO	bb
8	8 180115M2_8	Standard	12.500	2.75	1197.229	13507.876	1.108	11.7	-6.7	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: 13C2-PFHxA**

Response Factor: 0.636292

RRF SD: 0.0537257, Relative SD: 8.44356

Response type: Internal Std ( Ref 55 ), 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 180115M2_1	Standard	5.000	3.25	2798.348	12455.272	2.808	4.4	-11.7	NO		NO	bb
2	2 180115M2_2	Standard	5.000	3.25	3301.620	12561.499	3.285	5.2	3.3	NO		NO	bb
3	3 180115M2_3	Standard	5.000	3.25	4246.745	16767.305	3.166	5.0	-0.5	NO		NO	bb
4	4 180115M2_4	Standard	5.000	3.25	3760.921	14101.621	3.334	5.2	4.8	NO		NO	bb
5	5 180115M2_5	Standard	5.000	3.25	3739.436	15840.523	2.951	4.6	-7.2	NO		NO	bb
6	6 180115M2_6	Standard	5.000	3.25	4073.186	16157.200	3.151	5.0	-1.0	NO		NO	bb
7	7 180115M2_7	Standard	5.000	3.25	3489.034	11804.778	3.695	5.8	16.1	NO		NO	bb
8	8 180115M2_8	Standard	5.000	3.24	3308.405	13507.876	3.062	4.8	-3.8	NO		NO	bb

**Compound name: 13C4-PFHpA**

Response Factor: 0.620752

RRF SD: 0.0575853, Relative SD: 9.2767

Response type: Internal Std ( Ref 55 ), 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 180115M2_1	Standard	12.500	3.87	7169.426	12455.272	7.195	11.6	-7.3	NO		NO	bb
2	2 180115M2_2	Standard	12.500	3.87	8300.460	12561.499	8.260	13.3	6.4	NO		NO	bb
3	3 180115M2_3	Standard	12.500	3.87	10064.894	16767.305	7.503	12.1	-3.3	NO		NO	bb
4	4 180115M2_4	Standard	12.500	3.87	8890.794	14101.621	7.881	12.7	1.6	NO		NO	bb
5	5 180115M2_5	Standard	12.500	3.87	8790.349	15840.523	6.937	11.2	-10.6	NO		NO	bb
6	6 180115M2_6	Standard	12.500	3.87	9715.788	16157.200	7.517	12.1	-3.1	NO		NO	bb
7	7 180115M2_7	Standard	12.500	3.87	8726.845	11804.778	9.241	14.9	19.1	NO		NO	bb
8	8 180115M2_8	Standard	12.500	3.86	8149.912	13507.876	7.542	12.1	-2.8	NO		NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: 18O2-PFHxS**

Response Factor: 0.335817

RRF SD: 0.0498507, Relative SD: 14.8446

Response type: Internal Std ( Ref 56 ), 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 180115M2_1	Standard	12.500	4.01	793.087	2804.372	3.535	10.5	-15.8	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.01	971.136	3149.166	3.855	11.5	-8.2	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.01	1035.130	3283.306	3.941	11.7	-6.1	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.01	1074.646	3088.549	4.349	13.0	3.6	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.01	1083.133	3535.805	3.829	11.4	-8.8	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.01	1211.424	3990.885	3.794	11.3	-9.6	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.01	1067.766	2610.740	5.112	15.2	21.8	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.01	1041.940	2521.238	5.166	15.4	23.1	NO		NO	bb

**Compound name: 13C2-6:2 FTS**

Response Factor: 0.192395

RRF SD: 0.0380277, Relative SD: 19.7655

Response type: Internal Std ( Ref 57 ), 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 180115M2_1	Standard	12.500	4.33	1703.521	11387.326	1.870	9.7	-22.2	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.33	2145.071	12172.035	2.203	11.4	-8.4	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.33	2487.351	13726.202	2.265	11.8	-5.8	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.33	2144.726	13300.389	2.016	10.5	-16.2	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.33	2742.800	12814.540	2.675	13.9	11.2	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.33	2540.768	15285.250	2.078	10.8	-13.6	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.33	2945.466	11556.618	3.186	16.6	32.5	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.32	2820.117	11963.216	2.947	15.3	22.5	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: 13C2-PFOA**

Response Factor: 1.00125

RRF SD: 0.0485388, Relative SD: 4.84783

Response type: Internal Std ( Ref 57 ), 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 180115M2_1	Standard	12.500	4.38	11129.100	11387.326	12.217	12.2	-2.4	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.39	12054.782	12172.035	12.380	12.4	-1.1	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.39	13949.129	13726.202	12.703	12.7	1.5	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.38	13294.508	13300.389	12.494	12.5	-0.2	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.38	12417.951	12814.540	12.113	12.1	-3.2	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.38	15251.905	15285.250	12.473	12.5	-0.3	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.38	12829.036	11556.618	13.876	13.9	10.9	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.38	11359.297	11963.216	11.869	11.9	-5.2	NO		NO	bb

**Compound name: 13C5-PFNA**

Response Factor: 0.810837

RRF SD: 0.0778338, Relative SD: 9.59919

Response type: Internal Std ( Ref 58 ), 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 180115M2_1	Standard	12.500	4.81	8611.178	9887.708	10.886	13.4	7.4	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.82	10629.969	14541.915	9.137	11.3	-9.8	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.81	11370.316	15659.906	9.076	11.2	-10.5	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.81	11056.825	14165.005	9.757	12.0	-3.7	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.81	13849.589	14881.775	11.633	14.3	14.8	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.81	12422.833	16690.238	9.304	11.5	-8.2	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.81	10235.261	11566.101	11.062	13.6	9.1	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.81	10065.815	12301.464	10.228	12.6	0.9	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: 13C8-PFOSA**

Response Factor: 0.196454

RRF SD: 0.0326291, Relative SD: 16.609

Response type: Internal Std ( Ref 61 ), 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	180115M2_1	Standard	12.500	4.88	2018.146	9597.051	2.629	13.4	7.0	NO		NO	bb
2	180115M2_2	Standard	12.500	4.88	2450.537	12232.438	2.504	12.7	2.0	NO		NO	bb
3	180115M2_3	Standard	12.500	4.88	3263.926	16108.975	2.533	12.9	3.1	NO		NO	bb
4	180115M2_4	Standard	12.500	4.88	2580.329	15359.841	2.100	10.7	-14.5	NO		NO	bb
5	180115M2_5	Standard	12.500	4.87	2747.783	14601.564	2.352	12.0	-4.2	NO		NO	bb
6	180115M2_6	Standard	12.500	4.88	3176.006	14430.306	2.751	14.0	12.0	NO		NO	bb
7	180115M2_7	Standard	12.500	4.88	2461.930	10068.811	3.056	15.6	24.5	NO		NO	bb
8	180115M2_8	Standard	12.500	4.87	1976.078	14359.005	1.720	8.8	-29.9	NO		NO	bb

**Compound name: 13C8-PFOS**

Response Factor: 0.861518

RRF SD: 0.080099, Relative SD: 9.29742

Response type: Internal Std ( Ref 59 ), 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	180115M2_1	Standard	12.500	4.89	2273.944	3065.292	9.273	10.8	-13.9	NO		NO	bb
2	180115M2_2	Standard	12.500	4.89	2945.228	3701.104	9.947	11.5	-7.6	NO		NO	bb
3	180115M2_3	Standard	12.500	4.89	3464.374	4167.454	10.391	12.1	-3.5	NO		NO	bb
4	180115M2_4	Standard	12.500	4.89	3222.043	3259.616	12.356	14.3	14.7	NO		NO	bb
5	180115M2_5	Standard	12.500	4.89	2939.392	3538.393	10.384	12.1	-3.6	NO		NO	bb
6	180115M2_6	Standard	12.500	4.89	3461.071	3917.062	11.045	12.8	2.6	NO		NO	bb
7	180115M2_7	Standard	12.500	4.89	2933.493	3367.256	10.890	12.6	1.1	NO		NO	bb
8	180115M2_8	Standard	12.500	4.89	2455.447	2586.616	11.866	13.8	10.2	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: 13C2-PFDA**

Response Factor: 0.995958

RRF SD: 0.0416295, Relative SD: 4.17985

Response type: Internal Std ( Ref 60 ), 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 180115M2_1	Standard	12.500	5.19	9117.220	8643.550	13.185	13.2	5.9	NO		NO	bb
2	2 180115M2_2	Standard	12.500	5.19	9259.429	9573.944	12.089	12.1	-2.9	NO		NO	bb
3	3 180115M2_3	Standard	12.500	5.19	10469.260	10839.729	12.073	12.1	-3.0	NO		NO	bb
4	4 180115M2_4	Standard	12.500	5.18	11543.967	11526.396	12.519	12.6	0.6	NO		NO	bb
5	5 180115M2_5	Standard	12.500	5.18	10095.664	10211.842	12.358	12.4	-0.7	NO		NO	bb
6	6 180115M2_6	Standard	12.500	5.19	10322.235	10477.224	12.315	12.4	-1.1	NO		NO	bb
7	7 180115M2_7	Standard	12.500	5.19	8868.471	9388.578	11.808	11.9	-5.2	NO		NO	bb
8	8 180115M2_8	Standard	12.500	5.18	9834.333	9278.257	13.249	13.3	6.4	NO		NO	bb

**Compound name: 13C2-8:2 FTS**

Response Factor: 0.102966

RRF SD: 0.0196885, Relative SD: 19.1214

Response type: Internal Std ( Ref 55 ), 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 180115M2_1	Standard	12.500	5.16	1084.677	12455.272	1.089	10.6	-15.4	NO		NO	bb
2	2 180115M2_2	Standard	12.500	5.16	1447.292	12561.499	1.440	14.0	11.9	NO		NO	bb
3	3 180115M2_3	Standard	12.500	5.16	2016.216	16767.305	1.503	14.6	16.8	NO		NO	bb
4	4 180115M2_4	Standard	12.500	5.16	1733.439	14101.621	1.537	14.9	19.4	NO		NO	bb
5	5 180115M2_5	Standard	12.500	5.16	1179.393	15840.523	0.931	9.0	-27.7	NO		NO	bb
6	6 180115M2_6	Standard	12.500	5.16	1581.232	16157.200	1.223	11.9	-5.0	NO		NO	bb
7	7 180115M2_7	Standard	12.500	5.16	1661.151	11804.778	1.759	17.1	36.7	NO		NO	bbX
8	8 180115M2_8	Standard	12.500	5.16	1868.278	13507.876	1.729	16.8	34.3	NO		NO	bbX

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: d3-N-MeFOSAA**

Response Factor: 0.339955

RRF SD: 0.0639138, Relative SD: 18.8007

Response type: Internal Std ( Ref 61 ), 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 180115M2_1	Standard	12.500	5.33	3668.057	9597.051	4.778	14.1	12.4	NO		NO	bb
2	2 180115M2_2	Standard	12.500	5.33	4068.198	12232.438	4.157	12.2	-2.2	NO		NO	bb
3	3 180115M2_3	Standard	12.500	5.33	4941.718	16108.975	3.835	11.3	-9.8	NO		NO	bb
4	4 180115M2_4	Standard	12.500	5.33	4259.577	15359.841	3.466	10.2	-18.4	NO		NO	bb
5	5 180115M2_5	Standard	12.500	5.33	4700.651	14601.564	4.024	11.8	-5.3	NO		NO	bb
6	6 180115M2_6	Standard	12.500	5.33	4734.263	14430.306	4.101	12.1	-3.5	NO		NO	bb
7	7 180115M2_7	Standard	12.500	5.33	4812.376	10068.811	5.974	17.6	40.6	NO		NO	bb
8	8 180115M2_8	Standard	12.500	5.33	4204.535	14359.005	3.660	10.8	-13.9	NO		NO	bb

**Compound name: d5-N-EtFOSAA**

Response Factor: 0.376804

RRF SD: 0.0581665, Relative SD: 15.4368

Response type: Internal Std ( Ref 61 ), 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 180115M2_1	Standard	12.500	5.49	4291.856	9597.051	5.590	14.8	18.7	NO		NO	bb
2	2 180115M2_2	Standard	12.500	5.49	4807.261	12232.438	4.912	13.0	4.3	NO		NO	bb
3	3 180115M2_3	Standard	12.500	5.49	5925.357	16108.975	4.598	12.2	-2.4	NO		NO	bb
4	4 180115M2_4	Standard	12.500	5.48	4489.890	15359.841	3.654	9.7	-22.4	NO		NO	bb
5	5 180115M2_5	Standard	12.500	5.48	5242.137	14601.564	4.488	11.9	-4.7	NO		NO	bb
6	6 180115M2_6	Standard	12.500	5.48	5935.848	14430.306	5.142	13.6	9.2	NO		NO	bb
7	7 180115M2_7	Standard	12.500	5.48	4444.999	10068.811	5.518	14.6	17.2	NO		NO	bb
8	8 180115M2_8	Standard	12.500	5.48	4340.295	14359.005	3.778	10.0	-19.8	NO		NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: 13C2-PFUdA**

Response Factor: 0.943561

RRF SD: 0.166868, Relative SD: 17.6849

Response type: Internal Std ( Ref 61 ), 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 180115M2_1	Standard	12.500	5.51	10659.157	9597.051	13.883	14.7	17.7	NO		NO	bb
2	2 180115M2_2	Standard	12.500	5.51	12827.074	12232.438	13.108	13.9	11.1	NO		NO	bb
3	3 180115M2_3	Standard	12.500	5.51	14368.888	16108.975	11.150	11.8	-5.5	NO		NO	bb
4	4 180115M2_4	Standard	12.500	5.50	12801.493	15359.841	10.418	11.0	-11.7	NO		NO	bb
5	5 180115M2_5	Standard	12.500	5.50	11208.095	14601.564	9.595	10.2	-18.6	NO		NO	bb
6	6 180115M2_6	Standard	12.500	5.51	13602.793	14430.306	11.783	12.5	-0.1	NO		NO	bb
7	7 180115M2_7	Standard	12.500	5.50	12174.631	10068.811	15.114	16.0	28.1	NO		NO	bb
8	8 180115M2_8	Standard	12.500	5.50	10688.771	14359.005	9.305	9.9	-21.1	NO		NO	bb

**Compound name: 13C2-PFDoA**

Response Factor: 0.726172

RRF SD: 0.138899, Relative SD: 19.1275

Response type: Internal Std ( Ref 61 ), 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 180115M2_1	Standard	12.500	5.79	6851.029	9597.051	8.923	12.3	-1.7	NO		NO	bb
2	2 180115M2_2	Standard	12.500	5.79	8538.500	12232.438	8.725	12.0	-3.9	NO		NO	MM
3	3 180115M2_3	Standard	12.500	5.79	10789.430	16108.975	8.372	11.5	-7.8	NO		NO	bb
4	4 180115M2_4	Standard	12.500	5.78	9022.085	15359.841	7.342	10.1	-19.1	NO		NO	bb
5	5 180115M2_5	Standard	12.500	5.78	10734.802	14601.564	9.190	12.7	1.2	NO		NO	bb
6	6 180115M2_6	Standard	12.500	5.78	12215.312	14430.306	10.581	14.6	16.6	NO		NO	bb
7	7 180115M2_7	Standard	12.500	5.78	9999.913	10068.811	12.414	17.1	36.8	NO		NO	bb
8	8 180115M2_8	Standard	12.500	5.78	8119.767	14359.005	7.069	9.7	-22.1	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: d3-N-MeFOSA**

Response Factor: 0.118962

RRF SD: 0.0169862, Relative SD: 14.2787

Response type: Internal Std ( Ref 61 ), 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 180115M2_1	Standard	150.000	5.86	15969.864	9597.051	20.800	174.9	16.6	NO		NO	bb
2	2 180115M2_2	Standard	150.000	5.86	17622.953	12232.438	18.008	151.4	0.9	NO		NO	bb
3	3 180115M2_3	Standard	150.000	5.86	21395.508	16108.975	16.602	139.6	-7.0	NO		NO	bb
4	4 180115M2_4	Standard	150.000	5.86	18699.383	15359.841	15.218	127.9	-14.7	NO		NO	bb
5	5 180115M2_5	Standard	150.000	5.86	19396.660	14601.564	16.605	139.6	-6.9	NO		NO	bb
6	6 180115M2_6	Standard	150.000	5.86	21606.223	14430.306	18.716	157.3	4.9	NO		NO	bb
7	7 180115M2_7	Standard	150.000	5.86	17688.914	10068.811	21.960	184.6	23.1	NO		NO	bb
8	8 180115M2_8	Standard	150.000	5.86	17051.773	14359.005	14.844	124.8	-16.8	NO		NO	bb

**Compound name: 13C2-PFTeDA**

Response Factor: 0.371352

RRF SD: 0.056833, Relative SD: 15.3043

Response type: Internal Std ( Ref 61 ), 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 180115M2_1	Standard	12.500	6.24	3811.400	9597.051	4.964	13.4	6.9	NO		NO	bb
2	2 180115M2_2	Standard	12.500	6.24	4625.902	12232.438	4.727	12.7	1.8	NO		NO	bb
3	3 180115M2_3	Standard	12.500	6.24	5784.110	16108.975	4.488	12.1	-3.3	NO		NO	bb
4	4 180115M2_4	Standard	12.500	6.23	4166.997	15359.841	3.391	9.1	-26.9	NO		NO	MM
5	5 180115M2_5	Standard	12.500	6.23	5054.189	14601.564	4.327	11.7	-6.8	NO		NO	bb
6	6 180115M2_6	Standard	12.500	6.24	5187.430	14430.306	4.494	12.1	-3.2	NO		NO	MM
7	7 180115M2_7	Standard	12.500	6.23	4785.019	10068.811	5.940	16.0	28.0	NO		NO	bb
8	8 180115M2_8	Standard	12.500	6.23	5518.160	14359.005	4.804	12.9	3.5	NO		NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: d5-N-ETFOSA**

Response Factor: 0.17355

RRF SD: 0.0236433, Relative SD: 13.6233

Response type: Internal Std ( Ref 61 ), 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 180115M2_1	Standard	150.000	6.21	23192.393	9597.051	30.208	174.1	16.0	NO		NO	bb
2	2 180115M2_2	Standard	150.000	6.22	25547.748	12232.438	26.107	150.4	0.3	NO		NO	bb
3	3 180115M2_3	Standard	150.000	6.21	31434.623	16108.975	24.392	140.5	-6.3	NO		NO	bb
4	4 180115M2_4	Standard	150.000	6.21	27705.471	15359.841	22.547	129.9	-13.4	NO		NO	bb
5	5 180115M2_5	Standard	150.000	6.21	28494.203	14601.564	24.393	140.6	-6.3	NO		NO	bb
6	6 180115M2_6	Standard	150.000	6.22	32255.756	14430.306	27.941	161.0	7.3	NO		NO	bb
7	7 180115M2_7	Standard	150.000	6.22	25211.236	10068.811	31.299	180.3	20.2	NO		NO	bb
8	8 180115M2_8	Standard	150.000	6.21	24552.484	14359.005	21.374	123.2	-17.9	NO		NO	bb

**Compound name: 13C2-PFHxDA**

Response Factor: 0.559258

RRF SD: 0.111637, Relative SD: 19.9617

Response type: Internal Std ( Ref 61 ), 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 180115M2_1	Standard	5.000	6.54	2113.428	9597.051	2.753	4.9	-1.6	NO		NO	MM
2	2 180115M2_2	Standard	5.000	6.54	2775.093	12232.438	2.836	5.1	1.4	NO		NO	bb
3	3 180115M2_3	Standard	5.000	6.54	3282.116	16108.975	2.547	4.6	-8.9	NO		NO	MM
4	4 180115M2_4	Standard	5.000	6.54	2733.865	15359.841	2.225	4.0	-20.4	NO		NO	MM
5	5 180115M2_5	Standard	5.000	6.54	2890.199	14601.564	2.474	4.4	-11.5	NO		NO	bb
6	6 180115M2_6	Standard	5.000	6.54	3217.573	14430.306	2.787	5.0	-0.3	NO		NO	bb
7	7 180115M2_7	Standard	5.000	6.54	3292.356	10068.811	4.087	7.3	46.2	NO		NO	MM
8	8 180115M2_8	Standard	5.000	6.54	3057.260	14359.005	2.661	4.8	-4.8	NO		NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: d7-N-MeFOSE**

Response Factor: 0.179375

RRF SD: 0.0175828, Relative SD: 9.80226

Response type: Internal Std ( Ref 61 ), 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	180115M2_1	Standard	150.000	6.29	20888.145	9597.051	27.206	151.7	1.1	NO		NO	bb
2	180115M2_2	Standard	150.000	6.29	26082.570	12232.438	26.653	148.6	-0.9	NO		NO	bb
3	180115M2_3	Standard	150.000	6.29	31250.859	16108.975	24.250	135.2	-9.9	NO		NO	bb
4	180115M2_4	Standard	150.000	6.29	29842.697	15359.841	24.286	135.4	-9.7	NO		NO	bb
5	180115M2_5	Standard	150.000	6.29	30325.629	14601.564	25.961	144.7	-3.5	NO		NO	bb
6	180115M2_6	Standard	150.000	6.29	35709.676	14430.306	30.933	172.4	15.0	NO		NO	bb
7	180115M2_7	Standard	150.000	6.29	24759.139	10068.811	30.737	171.4	14.2	NO		NO	bb
8	180115M2_8	Standard	150.000	6.29	28975.107	14359.005	25.224	140.6	-6.3	NO		NO	bb

**Compound name: d9-N-EtFOSE**

Response Factor: 0.159689

RRF SD: 0.0235867, Relative SD: 14.7704

Response type: Internal Std ( Ref 61 ), 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	180115M2_1	Standard	150.000	6.44	22450.639	9597.051	29.242	183.1	22.1	NO		NO	bd
2	180115M2_2	Standard	150.000	6.45	21303.693	12232.438	21.770	136.3	-9.1	NO		NO	bb
3	180115M2_3	Standard	150.000	6.44	31097.133	16108.975	24.130	151.1	0.7	NO		NO	bb
4	180115M2_4	Standard	150.000	6.44	27869.063	15359.841	22.680	142.0	-5.3	NO		NO	bb
5	180115M2_5	Standard	150.000	6.44	27858.053	14601.564	23.849	149.3	-0.4	NO		NO	bb
6	180115M2_6	Standard	150.000	6.44	28613.766	14430.306	24.786	155.2	3.5	NO		NO	bb
7	180115M2_7	Standard	150.000	6.45	22170.844	10068.811	27.524	172.4	14.9	NO		NO	bb
8	180115M2_8	Standard	150.000	6.44	20270.486	14359.005	17.646	110.5	-26.3	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: 13C4-PFBA**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 54 ), 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	180115M2_1	Standard	12.500	1.52	10061.779	10061.779	12.500	12.5	0.0	NO		NO	bb
2	180115M2_2	Standard	12.500	1.52	11662.093	11662.093	12.500	12.5	0.0	NO		NO	bb
3	180115M2_3	Standard	12.500	1.52	14677.296	14677.296	12.500	12.5	0.0	NO		NO	bb
4	180115M2_4	Standard	12.500	1.52	12356.659	12356.659	12.500	12.5	0.0	NO		NO	bb
5	180115M2_5	Standard	12.500	1.52	13477.931	13477.931	12.500	12.5	0.0	NO		NO	bb
6	180115M2_6	Standard	12.500	1.52	14699.104	14699.104	12.500	12.5	0.0	NO		NO	bb
7	180115M2_7	Standard	12.500	1.52	11470.707	11470.707	12.500	12.5	0.0	NO		NO	bb
8	180115M2_8	Standard	12.500	1.52	11668.103	11668.103	12.500	12.5	0.0	NO		NO	bb

**Compound name: 13C5-PFHxA**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 55 ), 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	180115M2_1	Standard	12.500	3.25	12455.272	12455.272	12.500	12.5	0.0	NO		NO	bb
2	180115M2_2	Standard	12.500	3.25	12561.499	12561.499	12.500	12.5	0.0	NO		NO	bb
3	180115M2_3	Standard	12.500	3.25	16767.305	16767.305	12.500	12.5	0.0	NO		NO	bb
4	180115M2_4	Standard	12.500	3.25	14101.621	14101.621	12.500	12.5	0.0	NO		NO	bb
5	180115M2_5	Standard	12.500	3.24	15840.523	15840.523	12.500	12.5	0.0	NO		NO	bb
6	180115M2_6	Standard	12.500	3.25	16157.200	16157.200	12.500	12.5	0.0	NO		NO	bb
7	180115M2_7	Standard	12.500	3.25	11804.778	11804.778	12.500	12.5	0.0	NO		NO	bb
8	180115M2_8	Standard	12.500	3.24	13507.876	13507.876	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: 13C3-PFHxS**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 56 ), 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	180115M2_1	Standard	12.500	4.01	2804.372	2804.372	12.500	12.5	0.0	NO		NO	bb
2	180115M2_2	Standard	12.500	4.01	3149.166	3149.166	12.500	12.5	0.0	NO		NO	bb
3	180115M2_3	Standard	12.500	4.01	3283.306	3283.306	12.500	12.5	0.0	NO		NO	bb
4	180115M2_4	Standard	12.500	4.01	3088.549	3088.549	12.500	12.5	0.0	NO		NO	bb
5	180115M2_5	Standard	12.500	4.01	3535.805	3535.805	12.500	12.5	0.0	NO		NO	bb
6	180115M2_6	Standard	12.500	4.01	3990.885	3990.885	12.500	12.5	0.0	NO		NO	bb
7	180115M2_7	Standard	12.500	4.01	2610.740	2610.740	12.500	12.5	0.0	NO		NO	bb
8	180115M2_8	Standard	12.500	4.01	2521.238	2521.238	12.500	12.5	0.0	NO		NO	bb

**Compound name: 13C8-PFOA**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 57 ), 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	180115M2_1	Standard	12.500	4.38	11387.326	11387.326	12.500	12.5	0.0	NO		NO	bb
2	180115M2_2	Standard	12.500	4.39	12172.035	12172.035	12.500	12.5	0.0	NO		NO	bb
3	180115M2_3	Standard	12.500	4.39	13726.202	13726.202	12.500	12.5	0.0	NO		NO	bb
4	180115M2_4	Standard	12.500	4.38	13300.389	13300.389	12.500	12.5	0.0	NO		NO	bb
5	180115M2_5	Standard	12.500	4.38	12814.540	12814.540	12.500	12.5	0.0	NO		NO	bb
6	180115M2_6	Standard	12.500	4.39	15285.250	15285.250	12.500	12.5	0.0	NO		NO	bb
7	180115M2_7	Standard	12.500	4.38	11556.618	11556.618	12.500	12.5	0.0	NO		NO	bb
8	180115M2_8	Standard	12.500	4.38	11963.216	11963.216	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: 13C9-PFNA**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 58 ), 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 180115M2_1	Standard	12.500	4.81	9887.708	9887.708	12.500	12.5	0.0	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.82	14541.915	14541.915	12.500	12.5	0.0	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.81	15659.906	15659.906	12.500	12.5	0.0	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.81	14165.005	14165.005	12.500	12.5	0.0	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.81	14881.775	14881.775	12.500	12.5	0.0	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.81	16690.238	16690.238	12.500	12.5	0.0	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.81	11566.101	11566.101	12.500	12.5	0.0	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.81	12301.464	12301.464	12.500	12.5	0.0	NO		NO	bb

**Compound name: 13C4-PFOS**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 59 ), 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 180115M2_1	Standard	12.500	4.89	3065.292	3065.292	12.500	12.5	0.0	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.89	3701.104	3701.104	12.500	12.5	0.0	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.89	4167.454	4167.454	12.500	12.5	0.0	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.89	3259.616	3259.616	12.500	12.5	0.0	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.89	3538.393	3538.393	12.500	12.5	0.0	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.89	3917.062	3917.062	12.500	12.5	0.0	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.89	3367.256	3367.256	12.500	12.5	0.0	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.89	2586.616	2586.616	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
 Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

**Compound name: 13C6-PFDA**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 60 ), 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	180115M2_1	Standard	12.500	5.19	8643.550	8643.550	12.500	12.5	0.0	NO		NO	bb
2	180115M2_2	Standard	12.500	5.19	9573.944	9573.944	12.500	12.5	0.0	NO		NO	bb
3	180115M2_3	Standard	12.500	5.19	10839.729	10839.729	12.500	12.5	0.0	NO		NO	bb
4	180115M2_4	Standard	12.500	5.18	11526.396	11526.396	12.500	12.5	0.0	NO		NO	bb
5	180115M2_5	Standard	12.500	5.18	10211.842	10211.842	12.500	12.5	0.0	NO		NO	bb
6	180115M2_6	Standard	12.500	5.19	10477.224	10477.224	12.500	12.5	0.0	NO		NO	bb
7	180115M2_7	Standard	12.500	5.19	9388.578	9388.578	12.500	12.5	0.0	NO		NO	bb
8	180115M2_8	Standard	12.500	5.18	9278.257	9278.257	12.500	12.5	0.0	NO		NO	bb

**Compound name: 13C7-PFUDa**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 61 ), 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	180115M2_1	Standard	12.500	5.51	9597.051	9597.051	12.500	12.5	0.0	NO		NO	bb
2	180115M2_2	Standard	12.500	5.51	12232.438	12232.438	12.500	12.5	0.0	NO		NO	bb
3	180115M2_3	Standard	12.500	5.51	16108.975	16108.975	12.500	12.5	0.0	NO		NO	bb
4	180115M2_4	Standard	12.500	5.50	15359.841	15359.841	12.500	12.5	0.0	NO		NO	bb
5	180115M2_5	Standard	12.500	5.50	14601.564	14601.564	12.500	12.5	0.0	NO		NO	bb
6	180115M2_6	Standard	12.500	5.51	14430.306	14430.306	12.500	12.5	0.0	NO		NO	bb
7	180115M2_7	Standard	12.500	5.50	10068.811	10068.811	12.500	12.5	0.0	NO		NO	bb
8	180115M2_8	Standard	12.500	5.50	14359.005	14359.005	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time  
Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_011518.mdb 15 Jan 2018 11:38:30

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

Name: 180115M2\_1, Date: 16-Jan-2018, Time: 00:14:07, ID: ST180115M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

#	Name	CoD	CoD Flag	%RSD
1	1 PFBA	0.9972	NO	
2	2 PFPeA	0.9960	NO	
3	3 PFBS	0.9964	NO	
4	4 PFHxA	0.9925	NO	
5	5 PFHpA	0.9954	NO	
6	6 L-PFHxS	0.9997	NO	
7	8 6:2 FTS	0.9954	NO	
8	9 L-PFOA	0.9948	NO	
9	11 PFHpS	0.9990	NO	
10	12 PFNA	0.9983	NO	
11	13 PFOSA	0.9990	NO	
12	14 L-PFOS	0.9977	NO	
13	16 PFDA	0.9967	NO	
14	17 8:2 FTS	0.9909	NO	
15	18 N-MeFOSAA	0.9996	NO	
16	19 N-EtFOSAA	0.9991	NO	
17	20 PFUdA	0.9969	NO	
18	21 PFDS	0.9954	NO	
19	22 PFDoA	0.9964	NO	
20	23 N-MeFOSA	0.9983	NO	
21	24 PFTrDA	0.9972	NO	
22	25 PFTeDA	0.9909	NO	
23	26 N-EtFOSA	0.9987	NO	
24	27 PFHxDA	0.9949	NO	
25	28 PFODA	0.9984	NO	
26	29 N-MeFOSE	0.9957	NO	
27	30 N-EtFOSE	0.9997	NO	
28	31 13C3-PFBA		NO	4.288
29	32 13C3-PFPeA		NO	8.876
30	33 13C3-PFBS		NO	8.289
31	34 13C2-PFHxA		NO	8.444

Work Order: 1701831

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

Name: 180115M2\_1, Date: 16-Jan-2018, Time: 00:14:07, ID: ST180115M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

#	Name	CoD	CoD Flag	%RSD
32	35 13C4-PFHpA		NO	9.277
33	36 18O2-PFHxS		NO	14.845
34	37 13C2-6:2 FTS		NO	19.765
35	38 13C2-PFOA		NO	4.848
36	39 13C5-PFNA		NO	9.599
37	40 13C8-PFOA		NO	16.609
38	41 13C8-PFOS		NO	9.297
39	42 13C2-PFDA		NO	4.180
40	43 13C2-8:2 FTS		NO	19.121
41	44 d3-N-MeFOSAA		NO	18.801
42	45 d5-N-EtFOSAA		NO	15.437
43	46 13C2-PFUdA		NO	17.685
44	47 13C2-PFDoA		NO	19.128
45	48 d3-N-MeFOSA		NO	14.279
46	49 13C2-PFTeDA		NO	15.304
47	50 d5-N-ETFOA		NO	13.623
48	51 13C2-PFHxDA		NO	19.962
49	52 d7-N-MeFOSE		NO	9.802
50	53 d9-N-EtFOSE		NO	14.770
51	54 13C4-PFBA		NO	0.000
52	55 13C5-PFHxA		NO	0.000
53	56 13C3-PFHxS		NO	0.000
54	57 13C8-PFOA		NO	0.000
55	58 13C9-PFNA		NO	0.000
56	59 13C4-PFOS		NO	0.000
57	60 13C6-PFDA		NO	0.000
58	61 13C7-PFUdA		NO	0.000

Dataset: Untitled

Last Altered: Tuesday, January 16, 2018 10:06:30 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:09:05 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_011518.mdb 15 Jan 2018 11:38:30

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-15-18-FULL-OLD.cdb 16 Jan 2018 09:37:18

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180115M2_1	ST180115M2-1 PFC CS-2 17L2606	16-Jan-18	00:14:07
2	180115M2_2	ST180115M2-2 PFC CS-1 17L2607	16-Jan-18	00:25:32
3	180115M2_3	ST180115M2-3 PFC CS0 17L2608	16-Jan-18	00:37:02
4	180115M2_4	ST180115M2-4 PFC CS1 17L2609	16-Jan-18	00:48:46
5	180115M2_5	ST180115M2-5 PFC CS2 17L2610	16-Jan-18	01:00:17
6	180115M2_6	ST180115M2-6 PFC CS3 17L2611	16-Jan-18	01:11:44
7	180115M2_7	ST180115M2-7 PFC CS4 17L1208	16-Jan-18	01:23:11
8	180115M2_8	ST180115M2-8 PFC CS5 17L2613	16-Jan-18	01:34:38
9	180115M2_9	IPA	16-Jan-18	01:46:05
10	180115M2_10	ICV180115M2-1 PFC ICV 17L1201	16-Jan-18	01:57:31
11	180115M2_11	IPA	16-Jan-18	02:08:58

Dataset: U:\Q4.PRO\results\180115M2\180115M2-10.qld

Last Altered: Tuesday, January 16, 2018 10:33:59 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:34:30 Pacific Standard Time

Ⓐ PFDS < 70%  
Ⓑ NO SS available.

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_011518.mdb 15 Jan 2018 11:38:30

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

Name: 180115M2\_10, Date: 16-Jan-2018, Time: 01:57:31, ID: ICV180115M2-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

AC  
1/16/18  
JFA  
01/16/2018

#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	4.22e4	4.31e4	1.0000		1.64	1.53	12.2	9.143	91.4
2	2 PFPeA	263.1 > 218.9	3.87e4	4.74e4	1.0000		2.60	2.48	10.2	8.865	88.7
3	3 PFBS	299.0 > 79.7	7.49e3	5.83e3	1.0000		2.87	2.74	16.1	8.388	83.9
4	4 PFHxA	313.2 > 268.9	5.03e4	1.55e4	1.0000		3.36	3.25	16.2	9.233	92.3
5	5 PFHpA	363.0 > 318.9	3.86e4	3.81e4	1.0000		4.00	3.86	12.7	8.516	85.2
6	6 L-PFHxS	398.9 > 79.6	5.32e3	4.45e3	1.0000		4.14	4.01	15.0	7.365	73.7
7	8 6:2 FTS	427.1 > 407	7.45e3	4.45e3	1.0000		4.46	4.32	20.9	7.277	72.8
8	9 L-PFOA	413 > 368.7	4.17e4	5.84e4	1.0000		4.50	4.38	8.91	7.641	76.4
9	11 PFHpS	449 > 80.0	1.07e4	5.84e4	1.0000		4.60	4.48	2.29	8.064	80.6
10	12 PFNA	463.0 > 418.8	4.68e4	4.69e4	1.0000		4.94	4.81	12.5	9.162	91.6
11	13 PFOSA	498.1 > 77.8	3.83e3	3.99e3	1.0000		5.00	4.87	12.0	9.978	99.8
12	14 L-PFOS	499 > 79.9	9.56e3	1.09e4	1.0000		5.02	4.89	11.0	9.839	98.4
13	16 PFDA	513 > 468.8	3.70e4	4.01e4	1.0000		5.31	5.18	11.5	8.007	80.1
14	17 8:2 FTS	527 > 506.9	6.16e3	4.01e4	1.0000		5.28	5.15	1.92	7.523	75.2
15	18 N-MeFOSAA	570.1 > 419	1.06e4	9.21e3	1.0000		5.45	5.33	14.4	8.677	86.8
16	19 N-EtFOSAA	584.2 > 419	8.54e3	1.06e4	1.0000		5.60	5.48	10.0	7.762	77.6
17	20 PFUdA	563.0 > 518.9	1.34e4	1.66e4	1.0000		5.62	5.50	10.1	7.882	78.8
18	21 PFDS	598.8 > 80	1.97e3	1.66e4	1.0000		5.67	5.55	1.48	4.394	43.9
19	22 PFDoA	612.9 > 569.0	7.26e3	5.53e3	1.0000		5.91	5.78	16.4	11.272	112.7
20	23 N-MeFOSA	512.1 > 168.9		2.76e3	1.0000		5.87				
21	24 PFTrDA	662.9 > 618.9	6.78e3	5.53e3	1.0000		6.15	6.03	15.3	7.147	71.5
22	25 PFTeDA	712.9 > 668.8	3.76e3	1.87e3	1.0000		6.35	6.23	25.2	7.572	75.7
23	26 N-EtFOSA	526.1 > 168.9		2.97e3	1.0000		6.25				
24	27 PFHxDA	813.1 > 768.6		1.01e3	1.0000		6.64				
25	28 PFODA	913.1 > 868.8		1.01e3	1.0000		6.85				
26	29 N-MeFOSE	616.1 > 58.9		1.02e4	1.0000		6.31				
27	30 N-EtFOSE	630.1 > 58.9		9.18e3	1.0000		6.45				
28	31 13C3-PFBA	216.1 > 171.8	4.31e4	4.78e4	1.0000	0.779	1.64	1.53	11.3	14.466	115.7
29	32 13C3-PFPeA	266. > 221.8	4.74e4	5.13e4	1.0000	0.797	2.60	2.48	11.5	14.472	115.8
30	33 13C3-PFBS	302. > 98.8	5.83e3	5.13e4	1.0000	0.095	2.87	2.75	1.42	14.929	119.4
	34 13C3-PFHxA	313.2 > 268.9	1.55e4	5.13e4	1.0000	0.636	3.36	3.25	3.78	5.937	118.7

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Work Order 1701851

Dataset: U:\Q4.PRO\results\180115M2\180115M2-10.qld

Last Altered: Tuesday, January 16, 2018 10:33:59 Pacific Standard Time

Printed: Tuesday, January 16, 2018 10:34:30 Pacific Standard Time

Name: 180115M2\_10, Date: 16-Jan-2018, Time: 01:57:31, ID: ICV180115M2-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

	# Name	Trace	Area	IS Area	w/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C4-PFHpA	367.2 > 321.8	3.81e4	5.13e4	1.0000	0.621	4.00	3.86	9.27	14.929	119.4
33	36 18O2-PFHxS	403.0 > 102.6	4.45e3	1.25e4	1.0000	0.336	4.14	4.01	4.44	13.221	105.8
34	37 13C2-6:2 FTS	429.1 > 408.9	9.75e3	4.79e4	1.0000	0.192	4.46	4.33	2.55	13.229	105.8
35	38 13C2-PFOA	414.9 > 369.7	5.84e4	4.79e4	1.0000	1.001	4.50	4.38	15.3	15.234	121.9
36	39 13C5-PFNA	468.2 > 422.9	4.69e4	4.38e4	1.0000	0.811	4.94	4.81	13.4	16.506	132.0
37	40 13C8-PFOA	506.1 > 77.7	3.99e3	1.79e4	1.0000	0.196	5.00	4.87	2.78	14.134	113.1
38	41 13C8-PFOS	507.0 > 79.9	1.09e4	1.14e4	1.0000	0.862	5.02	4.89	11.9	13.836	110.7
39	42 13C2-PFDA	515.1 > 469.9	4.01e4	3.72e4	1.0000	0.996	5.31	5.18	13.5	13.560	108.5
40	43 13C2-8:2 FTS	529.1 > 508.7	4.91e3	5.13e4	1.0000	0.103	5.28	5.15	1.19	11.599	92.8
41	44 d3-N-MeFOSAA	573.3 > 419	9.21e3	1.79e4	1.0000	0.340	5.45	5.32	6.42	18.871	151.0
42	45 d5-N-EtFOSAA	589.3 > 419	1.06e4	1.79e4	1.0000	0.377	5.60	5.48	7.41	19.663	157.3
43	46 13C2-PFUdA	565 > 519.8	1.66e4	1.79e4	1.0000	0.944	5.62	5.50	11.5	12.235	97.9
44	47 13C2-PFDoA	615.0 > 569.7	5.53e3	1.79e4	1.0000	0.726	5.91	5.78	3.85	5.307	42.5
45	48 d3-N-MeFOSA	515.2 > 168.9	2.76e3	1.79e4	1.0000	0.119	5.87	5.86	1.92	16.158	10.8
46	49 13C2-PFTeDA	714.8 > 669.6	1.87e3	1.79e4	1.0000	0.371	6.35	6.23	1.30	3.503	28.0
47	50 d5-N-ETFOSA	531.1 > 168.9	2.97e3	1.79e4	1.0000	0.174	6.25	6.21	2.07	11.921	7.9
48	51 13C2-PFHxDA	815 > 769.7	1.01e3	1.79e4	1.0000	0.559	6.64	6.54	0.702	1.256	25.1
49	52 d7-N-MeFOSE	623.1 > 58.9	1.02e4	1.79e4	1.0000	0.179	6.31	6.29	7.09	39.533	26.4
50	53 d9-N-EtFOSE	639.2 > 58.8	9.18e3	1.79e4	1.0000	0.160	6.45	6.44	6.40	40.069	26.7
51	54 13C4-PFBA	217. > 171.8	4.78e4	4.78e4	1.0000	1.000	1.64	1.52	12.5	12.500	100.0
52	55 13C5-PFHxA	318 > 272.9	5.13e4	5.13e4	1.0000	1.000	3.36	3.25	12.5	12.500	100.0
53	56 13C3-PFHxS	401.9 > 79.9	1.25e4	1.25e4	1.0000	1.000	4.14	4.01	12.5	12.500	100.0
54	57 13C8-PFOA	421.3 > 376	4.79e4	4.79e4	1.0000	1.000	4.50	4.38	12.5	12.500	100.0
55	58 13C9-PFNA	472.2 > 426.9	4.38e4	4.38e4	1.0000	1.000	4.94	4.81	12.5	12.500	100.0
56	59 13C4-PFOS	503 > 79.9	1.14e4	1.14e4	1.0000	1.000	5.02	4.89	12.5	12.500	100.0
57	60 13C6-PFDA	519.1 > 473.7	3.72e4	3.72e4	1.0000	1.000	5.31	5.18	12.5	12.500	100.0
58	61 13C7-PFUdA	570.1 > 524.8	1.79e4	1.79e4	1.0000	1.000	5.62	5.50	12.5	12.500	100.0

Dataset: U:\Q4.PRO\results\180111M2\180111M2-1.qld

Last Altered: Saturday, January 13, 2018 11:12:24 Pacific Standard Time

Printed: Saturday, January 13, 2018 11:12:37 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818C.mdb 11 Jan 2018 15:33:36

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180111M2\_1, Date: 12-Jan-2018, Time: 03:38:50, ID: ST180111M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

*P/13/18*  
*vJA-01/15/2018*

	# Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1 PFBA	213.0 > 168.8	8.03e2	7.85e3		1.38	1.32	1.28	0.901	90.1	NO
2	2 PFPeA	263.1 > 218.9	8.52e2	9.81e3		2.37	2.30	1.09	0.908	90.8	NO
3	3 PFBS	299.0 > 79.7	1.83e2	1.20e3		2.66	2.59	1.90	0.892	89.2	NO
4	4 PFHxA	313.2 > 268.9	1.11e3	3.02e3		3.15	3.08	1.84	0.960	96.0	NO
5	5 PFHpA	363.0 > 318.9	8.83e2	8.02e3		3.78	3.70	1.38	0.904	90.4	NO
6	6 L-PFHxS	398.9 > 79.6	1.13e2	9.65e2		3.94	3.85	1.46	0.789	78.9	NO
7	8 6:2 FTS	427.1 > 407	2.34e2	9.65e2		4.25	4.17	3.03	1.06	106.2	NO
8	9 L-PFOA	413 > 368.7	1.28e3	9.97e3		4.31	4.23	1.60	1.12	112.4	NO
9	11 PFHpS	449 > 80.0	1.24e2	9.97e3		4.42	4.34	0.155	0.611	61.1	YES
10	12 PFNA	463.0 > 418.8	9.29e2	9.51e3		4.81	4.66	1.22	0.861	86.1	NO
11	13 PFOSA	498.1 > 77.8	2.44e2	2.47e3		4.87	4.72	1.24	0.919	91.9	NO
12	14 L-PFOS	499 > 79.9	2.36e2	2.51e3		4.75	4.74	1.18	0.974	97.4	NO
13	16 PFDA	513 > 468.8	1.06e3	8.44e3		5.18	5.03	1.57	1.13	112.6	NO
14	17 8:2 FTS	527 > 506.9	1.29e2	8.44e3		5.15	5.01	0.191	0.720	72.0	NO
15	18 N-MeFOSAA	570.1 > 419	4.48e2	3.69e3		5.32	5.19	1.52	0.895	89.5	NO
16	19 N-EtFOSAA	584.2 > 419	4.04e2	3.94e3		5.48	5.34	1.28	1.06	106.4	NO
17	20 PFUDa	563.0 > 518.9	9.73e2	9.41e3		5.50	5.36	1.29	1.04	104.2	NO
18	21 PFDS	598.8 > 80	2.53e2	9.41e3		5.54	5.40	0.337	0.929	92.9	NO
19	22 PFDoA	612.9 > 569.0	1.16e3	6.69e3		5.77	5.64	2.16	0.957	95.7	NO
20	23 N-MeFOSA	512.1 > 168.9	4.85e2	1.55e4		5.80	5.72	4.70	4.40	88.0	NO
21	24 PFTrDA	662.9 > 618.9	9.91e2	6.69e3		6.00	5.89	1.85	0.773	77.3	NO
22	25 PFTeDA	712.9 > 668.8	5.68e2	2.44e3		6.22	6.11	2.91	1.05	104.5	NO
23	26 N-EtFOSA	526.1 > 168.9	7.41e2	2.30e4		6.17	6.12	4.84	4.92	98.5	NO
24	27 PFHxDA	813.1 > 768.6	4.24e2	1.93e3		6.53	6.44	1.10	1.05	104.7	NO
25	28 PFODA	913.1 > 868.8	4.81e2	1.93e3		6.74	6.67	1.25	1.10	109.9	NO
26	29 N-MeFOSE	616.1 > 58.9	7.84e2	2.31e4		6.27	6.27	5.09	4.97	99.5	NO
27	30 N-EtFOSE	630.1 > 58.9	8.25e2	2.17e4		6.43	6.42	5.71	4.22	84.4	NO
28	31 13C3-PFBA	216.1 > 171.8	7.85e3	1.04e4	0.764	1.38	1.32	9.45	12.4	99.1	NO
29	32 13C3-PFPeA	266. > 221.8	9.81e3	1.27e4	0.730	2.37	2.30	9.64	13.2	105.7	NO
30	33 13C3-PFBS	302. > 98.8	1.20e3	1.27e4	0.095	2.77	2.58	1.18	12.4	99.1	NO
31	Work Order 2711851	315 > 269.8	3.02e3	1.27e4	0.597	3.15	3.08	2.97	4.98	99.5	NO

*70-130*

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Dataset: U:\Q4.PRO\results\180111M2\180111M2-1.qld

Last Altered: Saturday, January 13, 2018 11:12:24 Pacific Standard Time

Printed: Saturday, January 13, 2018 11:12:37 Pacific Standard Time

Name: 180111M2\_1, Date: 12-Jan-2018, Time: 03:38:50, ID: ST180111M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	# Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35 13C4-PFHpA	367.2 > 321.8	8.02e3	1.27e4	0.604	3.78	3.70	7.89	13.1	104.4	NO
33	36 18O2-PFHxS	403.0 > 102.6	9.65e2	2.97e3	0.293	3.94	3.85	4.06	13.8	110.7	NO
34	37 13C2-6:2 FTS	429.1 > 408.9	2.04e3	1.13e4	0.215	4.25	4.17	2.26	10.5	83.8	NO
35	38 13C2-PFOA	414.9 > 369.7	9.97e3	1.13e4	0.916	4.31	4.22	11.0	12.0	96.2	NO
36	39 13C5-PFNA	468.2 > 422.9	9.51e3	1.27e4	0.817	4.81	4.66	9.39	11.5	91.9	NO
37	40 13C8-PFOA	506.1 > 77.7	2.47e3	9.56e3	0.223	4.87	4.72	3.22	14.5	115.7	NO
38	41 13C8-PFOS	507.0 > 79.9	2.51e3	2.84e3	0.875	4.89	4.74	11.1	12.6	101.1	NO
39	42 13C2-PFDA	515.1 > 469.9	8.44e3	8.17e3	1.105	5.18	5.03	12.9	11.7	93.5	NO
40	43 13C2-8:2 FTS	529.1 > 508.7	8.64e2	1.27e4	0.101	5.15	5.01	0.850	8.42	67.4	NO
41	44 d3-N-MeFOSAA	573.3 > 419	3.69e3	9.56e3	0.345	5.32	5.18	4.83	14.0	111.5	NO
42	45 d5-N-EiFOSAA	589.3 > 419	3.94e3	9.56e3	0.390	5.47	5.34	5.15	13.2	105.5	NO
43	46 13C2-PFUdA	565 > 519.8	9.41e3	9.56e3	0.958	5.49	5.36	12.3	12.8	102.7	NO
44	47 13C2-PFDoA	615.0 > 569.7	6.69e3	9.56e3	0.599	5.77	5.64	8.75	14.6	116.9	NO
45	48 d3-N-MeFOSA	515.2 > 168.9	1.55e4	9.56e3	0.124	5.83	5.75	20.2	163	108.7	NO
46	49 13C2-PFTeDA	714.8 > 669.6	2.44e3	9.56e3	0.282	6.22	6.11	3.18	11.3	90.4	NO
47	50 d5-N-ETFOSA	531.1 > 168.9	2.30e4	9.56e3	0.184	6.18	6.13	30.0	163	108.6	NO
48	51 13C2-PFHxDA	815 > 769.7	1.93e3	9.56e3	0.540	6.53	6.44	2.52	4.67	93.5	NO
49	52 d7-N-MeFOSE	623.1 > 58.9	2.31e4	9.56e3	0.182	6.27	6.26	30.2	166	110.4	NO
50	53 d9-N-EiFOSE	639.2 > 58.8	2.17e4	9.56e3	0.173	6.42	6.42	28.4	164	109.6	NO
51	54 13C4-PFBA	217. > 171.8	1.04e4	1.04e4	1.000	1.38	1.32	12.5	12.5	100.0	NO
52	55 13C5-PFHxA	318 > 272.9	1.27e4	1.27e4	1.000	3.15	3.08	12.5	12.5	100.0	NO
53	56 13C3-PFHxS	401.9 > 79.9	2.97e3	2.97e3	1.000	4.02	3.85	12.5	12.5	100.0	NO
54	57 13C8-PFOA	421.3 > 376	1.13e4	1.13e4	1.000	4.38	4.23	12.5	12.5	100.0	NO
55	58 13C9-PFNA	472.2 > 426.9	1.27e4	1.27e4	1.000	4.81	4.66	12.5	12.5	100.0	NO
56	59 13C4-PFOS	503 > 79.9	2.84e3	2.84e3	1.000	4.89	4.74	12.5	12.5	100.0	NO
57	60 13C6-PFDA	519.1 > 473.7	8.17e3	8.17e3	1.000	5.18	5.03	12.5	12.5	100.0	NO
58	61 13C7-PFUdA	570.1 > 524.8	9.56e3	9.56e3	1.000	5.49	5.36	12.5	12.5	100.0	NO

50-150  
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Dataset: Untitled

Last Altered: Saturday, January 13, 2018 11:19:22 Pacific Standard Time  
 Printed: Saturday, January 13, 2018 11:21:12 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818C.mdb 11 Jan 2018 15:33:36  
 Calibration: 13 Jan 2018 11:19:22

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180111M2_1	ST180111M2-1 PFC CS0 17L2608	12-Jan-18	03:38:50
2	180111M2_2	IPA	12-Jan-18	03:49:59
3	180111M2_3	B7L0101-BS1 OPR 0.25	12-Jan-18	04:01:09
4	180111M2_4	B7L0101-BSD1 LCSD 0.25	12-Jan-18	04:12:24
5	180111M2_5	B7L0101-BLK1 Method Blank 0.25	12-Jan-18	04:23:34
6	180111M2_6	1701840-04 YS22-GW16-1217 0.1211	12-Jan-18	04:34:44
7	180111M2_7	1701840-05 YS22-GW10-1217 0.11512	12-Jan-18	04:45:56
8	180111M2_8	1701840-10 YS22-GW18-1117 0.1082	12-Jan-18	04:57:07
9	180111M2_9	1701851-01 FT-PZ-462S-20171202 0.22334	12-Jan-18	05:08:18
10	180111M2_10	1701851-02 FT-PZ-462I-20171202 0.25131	12-Jan-18	05:19:28
11	180111M2_11	1701851-03 FT-PZ-455S-20171202 0.2638	12-Jan-18	05:30:39
12	180111M2_12	1701851-04 FT-PZ-455I-20171202 0.25637	12-Jan-18	05:41:50
13	180111M2_13	1701851-05 FT-PZ-453S-20171202 0.23285	12-Jan-18	05:53:01
14	180111M2_14	1701851-06 FT-PZ-453S-FRB-20171202 0.26...	12-Jan-18	06:04:12
15	180111M2_15	1701851-07 FT-PZ-456I-FRB-20171204 0.2536	12-Jan-18	06:15:23
16	180111M2_16	1701851-08 FT-PZ-456I-20171204 0.26041	12-Jan-18	06:26:36
17	180111M2_17	1701851-09 FT-PZ-456S-20171204 0.25898	12-Jan-18	06:37:48
18	180111M2_18	IPA	12-Jan-18	06:48:59
19	180111M2_19	ST180111M2-2 PFC CS3 17L2611	12-Jan-18	07:00:09
20	180111M2_20	IPA	12-Jan-18	07:11:21
21	180111M2_21	1701802-01RE1@5X FC-MW02SR1-NP-2017...	12-Jan-18	07:22:31
22	180111M2_22	1701802-02RE1@5X FC-MW02SR1-P1-2017...	12-Jan-18	07:33:43
23	180111M2_23	1701802-03RE1@5X FC-MW02SR1-P2-2017...	12-Jan-18	07:44:53
24	180111M2_24	1701802-04RE1@5X FC-MW02SR1-P3-2017...	12-Jan-18	07:56:04
25	180111M2_25	IPA	12-Jan-18	08:07:15
26	180111M2_26	ST180111M2-2 PFC CS3 17L2611	12-Jan-18	08:18:25
27	180111M2_27	IPA <sup>3</sup>	12-Jan-18	08:29:37

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-19.qld

Last Altered: Saturday, January 13, 2018 11:14:12 Pacific Standard Time

Printed: Saturday, January 13, 2018 11:14:27 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818C.mdb 11 Jan 2018 15:33:36

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

*CP 1/13/18*  
*JJA 01/15/2018*

Name: 180111M2\_19, Date: 12-Jan-2018, Time: 07:00:09, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc	%Rec	Recovery	Out
1	1 PFBA	213.0 > 168.8	1.24e4	1.08e4		1.38	1.32	14.4	9.80	98.0	NO	70-130
2	2 PFPeA	263.1 > 218.9	1.25e4	1.21e4		2.37	2.30	12.9	10.3	102.6	NO	
3	3 PFBS	299.0 > 79.7	2.85e3	1.65e3		2.66	2.59	21.6	10.2	101.5	NO	
4	4 PFHxA	313.2 > 258.9	1.69e4	4.30e3		3.15	3.08	19.6	10.1	101.3	NO	
5	5 PFHpA	363.0 > 318.9	1.29e4	9.83e3		3.78	3.70	16.5	10.0	100.2	NO	
6	6 L-PFHxS	398.9 > 79.6	2.06e3	1.24e3		3.94	3.85	20.8	9.92	99.2	NO	
7	8 6:2 FTS	427.1 > 407	2.92e3	1.24e3		4.25	4.17	29.5	9.67	96.7	NO	
8	9 L-PFOA	413 > 368.7	1.42e4	1.50e4		4.31	4.22	11.8	9.20	92.0	NO	
9	11 PFHpS	449 > 80.0	3.15e3	1.50e4		4.42	4.33	2.62	8.96	89.6	NO	
10	12 PFNA	463.0 > 418.8	1.42e4	1.25e4		4.81	4.66	14.3	10.1	100.8	NO	
11	13 PFOSA	498.1 > 77.8	3.51e3	2.75e3		4.87	4.72	15.9	12.2	121.5	NO	
12	14 L-PFOS	499 > 79.9	3.38e3	3.64e3		4.75	4.75	11.6	9.86	98.6	NO	
13	16 PFDA	513 > 468.8	1.32e4	9.53e3		5.18	5.04	17.4	10.6	106.0	NO	
14	17 8:2 FTS	527 > 506.9	2.15e3	9.53e3		5.15	5.01	2.82	8.94	89.4	NO	
15	18 N-MeFOSAA	570.1 > 419	6.69e3	4.90e3		5.32	5.19	17.1	8.58	85.8	NO	
16	19 N-EtFOSAA	584.2 > 419	5.92e3	5.26e3		5.48	5.34	14.1	9.18	91.8	NO	
17	20 PFUdA	563.0 > 518.9	1.32e4	1.18e4		5.50	5.36	13.9	10.5	105.3	NO	
18	21 PFDS	598.8 > 80	3.50e3	1.18e4		5.54	5.41	3.69	9.90	99.0	NO	
19	22 PFDoA	612.9 > 569.0	1.49e4	8.70e3		5.77	5.64	21.4	10.0	100.4	NO	
20	23 N-MeFOSA	512.1 > 168.9	7.56e3	1.94e4		5.80	5.72	58.3	52.9	105.8	NO	
21	24 PFTrDA	662.9 > 618.9	1.70e4	8.70e3		6.00	5.89	24.3	10.2	101.8	NO	
22	25 PFTeDA	712.9 > 668.8	8.87e3	3.38e3		6.22	6.10	32.8	11.1	110.9	NO	
23	26 N-EtFOSA	526.1 > 168.9	1.04e4	2.99e4		6.17	6.12	52.3	51.4	102.7	NO	
24	27 PFHxDA	813.1 > 768.6	5.03e3	2.44e3		6.53	6.44	10.3	10.5	105.2	NO	
25	28 PFODA	913.1 > 868.8	6.54e3	2.44e3		6.74	6.67	13.4	10.5	104.5	NO	
26	29 N-MeFOSE	616.1 > 58.9	1.11e4	3.07e4		6.27	6.27	54.2	46.8	93.6	NO	
27	30 N-EtFOSE	630.1 > 58.9	1.33e4	2.89e4		6.43	6.42	68.9	49.3	98.6	NO	
28	31 13C3-PFBA	216.1 > 171.8	1.08e4	1.40e4	0.764	1.38	1.33	9.63	12.6	100.9	NO	50-150
29	32 13C3-PFPeA	266. > 221.8	1.21e4	1.63e4	0.730	2.37	2.31	9.25	12.7	101.3	NO	
30	33 13C3-PFBS	302. > 98.8	1.65e3	1.63e4	0.095	2.77	2.59	1.26	13.2	105.6	NO	
31	Work Order 20180115	315 > 269.8	4.30e3	1.63e4	0.597	3.15	3.08	3.29	5.51	110.2	NO	Page 260 of 935

Dataset: U:\Q4.PRO\results\180111M2\180111M2-19.qld

Last Altered: Saturday, January 13, 2018 11:14:12 Pacific Standard Time

Printed: Saturday, January 13, 2018 11:14:27 Pacific Standard Time

Name: 180111M2\_19, Date: 12-Jan-2018, Time: 07:00:09, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	# Name	Trace	Area	IS Area	RRF	Pred:RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35 13C4-PFHpA	367.2 > 321.8	9.83e3	1.63e4	0.604	3.78	3.71	7.52	12.4	99.5	NO
33	36 18O2-PFHxS	403.0 > 102.6	1.24e3	4.06e3	0.293	3.94	3.85	3.81	13.0	103.9	NO
34	37 13C2-6:2 FTS	429.1 > 408.9	3.01e3	1.47e4	0.215	4.25	4.17	2.56	11.9	95.1	NO
35	38 13C2-PFOA	414.9 > 369.7	1.50e4	1.47e4	0.916	4.31	4.22	12.8	14.0	111.6	NO
36	39 13C5-PFNA	468.2 > 422.9	1.25e4	1.39e4	0.817	4.81	4.66	11.2	13.8	110.0	NO
37	40 13C8-PFOA	506.1 > 77.7	2.75e3	1.34e4	0.223	4.87	4.72	2.56	11.5	92.0	NO
38	41 13C8-PFOS	507.0 > 79.9	3.64e3	3.47e3	0.875	4.89	4.74	13.1	15.0	120.0	NO
39	42 13C2-PFDA	515.1 > 469.9	9.53e3	1.14e4	1.105	5.18	5.03	10.5	9.48	75.8	NO
40	43 13C2-8:2 FTS	529.1 > 508.7	1.26e3	1.63e4	0.101	5.15	5.00	0.964	9.56	76.4	NO
41	44 d3-N-MeFOSAA	573.3 > 419	4.90e3	1.34e4	0.345	5.32	5.18	4.56	13.2	105.7	NO
42	45 d5-N-EtFOSAA	589.3 > 419	5.26e3	1.34e4	0.390	5.47	5.34	4.90	12.5	100.4	NO
43	46 13C2-PFUdA	565 > 519.8	1.18e4	1.34e4	0.958	5.49	5.36	11.0	11.5	92.0	NO
44	47 13C2-PFDoA	615.0 > 569.7	8.70e3	1.34e4	0.599	5.77	5.64	8.10	13.5	108.2	NO
45	48 d3-N-MeFOSA	515.2 > 168.9	1.94e4	1.34e4	0.124	5.83	5.75	18.1	146	97.2	NO
46	49 13C2-PFTeDA	714.8 > 669.6	3.38e3	1.34e4	0.282	6.22	6.10	3.15	11.2	89.3	NO
47	50 d5-N-ETFOSA	531.1 > 168.9	2.99e4	1.34e4	0.184	6.18	6.14	27.8	151	100.7	NO
48	51 13C2-PFHxDA	815 > 769.7	2.44e3	1.34e4	0.540	6.53	6.44	2.27	4.21	84.2	NO
49	52 d7-N-MeFOSE	623.1 > 58.9	3.07e4	1.34e4	0.182	6.27	6.26	28.6	157	104.6	NO
50	53 d9-N-EtFOSE	639.2 > 58.8	2.89e4	1.34e4	0.173	6.42	6.41	26.9	156	103.8	NO
51	54 13C4-PFBA	217. > 171.8	1.40e4	1.40e4	1.000	1.38	1.33	12.5	12.5	100.0	NO
52	55 13C5-PFHxA	318 > 272.9	1.63e4	1.63e4	1.000	3.15	3.08	12.5	12.5	100.0	NO
53	56 13C3-PFHxS	401.9 > 79.9	4.06e3	4.06e3	1.000	4.02	3.85	12.5	12.5	100.0	NO
54	57 13C8-PFOA	421.3 > 376	1.47e4	1.47e4	1.000	4.38	4.22	12.5	12.5	100.0	NO
55	58 13C9-PFNA	472.2 > 426.9	1.39e4	1.39e4	1.000	4.81	4.66	12.5	12.5	100.0	NO
56	59 13C4-PFOS	503 > 79.9	3.47e3	3.47e3	1.000	4.89	4.74	12.5	12.5	100.0	NO
57	60 13C6-PFDA	519.1 > 473.7	1.14e4	1.14e4	1.000	5.18	5.03	12.5	12.5	100.0	NO
58	61 13C7-PFUdA	570.1 > 524.8	1.34e4	1.34e4	1.000	5.49	5.36	12.5	12.5	100.0	NO

50-50  
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Dataset: Untitled

Last Altered: Saturday, January 13, 2018 11:19:22 Pacific Standard Time

Printed: Saturday, January 13, 2018 11:21:12 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818C.mdb 11 Jan 2018 15:33:36

Calibration: 13 Jan 2018 11:19:22

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180111M2_1	ST180111M2-1 PFC CS0 17L2608	12-Jan-18	03:38:50
2	180111M2_2	IPA	12-Jan-18	03:49:59
3	180111M2_3	B7L0101-BS1 OPR 0.25	12-Jan-18	04:01:09
4	180111M2_4	B7L0101-BSD1 LCSD 0.25	12-Jan-18	04:12:24
5	180111M2_5	B7L0101-BLK1 Method Blank 0.25	12-Jan-18	04:23:34
6	180111M2_6	1701840-04 YS22-GW16-1217 0.1211	12-Jan-18	04:34:44
7	180111M2_7	1701840-05 YS22-GW10-1217 0.11512	12-Jan-18	04:45:56
8	180111M2_8	1701840-10 YS22-GW18-1117 0.1082	12-Jan-18	04:57:07
9	180111M2_9	1701851-01 FT-PZ-462S-20171202 0.22334	12-Jan-18	05:08:18
10	180111M2_10	1701851-02 FT-PZ-462I-20171202 0.25131	12-Jan-18	05:19:28
11	180111M2_11	1701851-03 FT-PZ-455S-20171202 0.2638	12-Jan-18	05:30:39
12	180111M2_12	1701851-04 FT-PZ-455I-20171202 0.25637	12-Jan-18	05:41:50
13	180111M2_13	1701851-05 FT-PZ-453S-20171202 0.23285	12-Jan-18	05:53:01
14	180111M2_14	1701851-06 FT-PZ-453S-FRB-20171202 0.26...	12-Jan-18	06:04:12
15	180111M2_15	1701851-07 FT-PZ-456I-FRB-20171204 0.2536	12-Jan-18	06:15:23
16	180111M2_16	1701851-08 FT-PZ-456I-20171204 0.26041	12-Jan-18	06:26:36
17	180111M2_17	1701851-09 FT-PZ-456S-20171204 0.25898	12-Jan-18	06:37:48
18	180111M2_18	IPA	12-Jan-18	06:48:59
19	180111M2_19	ST180111M2-2 PFC CS3 17L2611	12-Jan-18	07:00:09
20	180111M2_20	IPA	12-Jan-18	07:11:21
21	180111M2_21	1701802-01RE1@5X FC-MW02SR1-NP-2017...	12-Jan-18	07:22:31
22	180111M2_22	1701802-02RE1@5X FC-MW02SR1-P1-2017...	12-Jan-18	07:33:43
23	180111M2_23	1701802-03RE1@5X FC-MW02SR1-P2-2017...	12-Jan-18	07:44:53
24	180111M2_24	1701802-04RE1@5X FC-MW02SR1-P3-2017...	12-Jan-18	07:56:04
25	180111M2_25	IPA	12-Jan-18	08:07:15
26	180111M2_26	ST180111M2-2 PFC CS3 17L2611	12-Jan-18	08:18:25
27	180111M2_27	IPA	12-Jan-18	08:29:37

Dataset: U:\Q4.PRO\results\180114M1\180114M1-29.qld

ⓐ > 130%

Last Altered: Monday, January 15, 2018 15:18:22 Pacific Standard Time

Printed: Monday, January 15, 2018 15:18:32 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818D.mdb 15 Jan 2018 12:58:53

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-14-18-FULL.cdb 15 Jan 2018 14:59:56

CP/15/18

Name: 180114M1\_29, Date: 14-Jan-2018, Time: 18:59:27, ID: ST180114M1-9 PFC CS3 17L2611, Description: PFC CS3 17L2611

#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery	Out
1	1 PFBA	213.0 > 168.8	3.52e3	2.95e3		1.44	1.31	14.9	11.0	109.7	NO	
2	2 PFPeA	263.1 > 218.9	6.91e3	7.01e3		2.37	2.22	12.3	10.3	103.2	NO	
3	3 PFBS	299.0 > 79.7	1.59e3	8.71e2		2.60	2.47	22.8	11.9	119.3	NO	
4	4 PFHxA	313.2 > 268.9	9.46e3	2.38e3		3.00	2.90	19.9	10.9	108.6	NO	
5	5 PFHpA	363.0 > 318.9	7.41e3	6.19e3		3.54	3.43	14.9	11.6	115.5	NO	
6	6 L-PFHxS	398.9 > 79.6	1.20e3	6.98e2		3.68	3.57	21.5	12.5	125.3	NO	
7	8 6:2 FTS	427.1 > 407	1.81e3	1.66e3		4.00	3.85	13.6	12.8	128.5	NO	
8	9 L-PFOA	413 > 368.7	9.81e3	9.22e3		4.07	3.94	13.3	11.1	110.6	NO	
9	11 PFHpS	449 > 80.0	2.01e3	9.22e3		4.20	4.06	2.73	10.8	107.7	NO	
10	12 PFNA	463.0 > 418.8	9.47e3	9.35e3		4.54	4.41	12.7	8.48	84.8	NO	
11	13 PFOSA	498.1 > 77.8	1.67e3	1.56e3		4.61	4.48	13.4	8.96	89.6	NO	
12	14 L-PFOS	499 > 79.9	2.35e3	2.35e3		4.63	4.50	12.5	10.5	105.3	NO	
13	16 PFDA	513 > 468.8	8.08e3	7.57e3		4.94	4.82	13.3	10.2	101.7	NO	
14	17 8:2 FTS	527 > 506.9	1.57e3	1.03e3		4.88	4.76	19.0	10.0	100.0	NO	
15	18 N-MeFOSAA	570.1 > 419	3.88e3	2.21e3		5.10	4.97	22.0	9.86	98.6	NO	
16	19 N-EtFOSAA	584.2 > 419	3.32e3	2.64e3		5.27	5.16	15.8	12.6	126.1	NO	
17	20 PFUDa	563.0 > 518.9	8.11e3	7.96e3		5.30	5.17	12.7	10.7	107.5	NO	
18	21 PFDS	598.8 > 80	2.89e3	7.96e3		5.33	5.22	4.53	13.2	132.2	ⓐ YES	
19	22 PFDoA	612.9 > 569.0	1.20e4	6.31e3		5.60	5.48	23.7	9.26	92.6	NO	
20	23 N-MeFOSA	512.1 > 168.9	5.83e3	1.43e4		5.91	5.86	61.2	56.2	112.4	NO	
21	24 PFTrDA	662.9 > 618.9	1.14e4	2.99e3		5.85	5.74	47.9	8.00	80.0	NO	
22	25 PFTeDA	712.9 > 668.8	7.63e3	2.99e3		6.10	5.98	31.9	12.0	119.9	NO	
23	26 N-EtFOSA	526.1 > 168.9	5.90e3	1.61e4		6.33	6.30	55.1	55.8	111.6	NO	
24	27 PFHxDA	813.1 > 768.6	3.15e3	1.72e3		6.45	6.37	9.16	9.75	97.5	NO	
25	28 PFODA	913.1 > 868.8	3.12e3	1.72e3		6.70	6.63	9.06	9.36	93.6	NO	
26	29 N-MeFOSE	616.1 > 58.9	6.59e3	1.60e4		6.43	6.42	61.7	54.1	108.3	NO	
27	30 N-EtFOSE	630.1 > 58.9	6.82e3	1.48e4		6.60	6.57	68.9	54.4	108.8	NO	
28	31 13C3-PFBA	216.1 > 171.8	2.95e3	3.86e3	0.790	1.44	1.31	9.55	12.1	96.7	NO	
29	32 13C3-PFPeA	266. > 221.8	7.01e3	9.74e3	0.809	2.35	2.22	8.99	11.1	88.9	NO	
30	33 13C3-PFBS	302. > 98.8	8.71e2	9.74e3	0.097	2.60	2.47	1.12	11.6	92.7	NO	
31	Work 0413C2701814	315 > 269.8	2.38e3	9.74e3	0.633	3.00	2.90	3.06	4.83	96.5	NO	

70-130

50-150

Dataset: U:\Q4.PRO\results\180114M1\180114M1-29.qld

Last Altered: Monday, January 15, 2018 15:18:22 Pacific Standard Time

Printed: Monday, January 15, 2018 15:18:32 Pacific Standard Time

Name: 180114M1\_29, Date: 14-Jan-2018, Time: 18:59:27, ID: ST180114M1-9 PFC CS3 17L2611, Description: PFC CS3 17L2611

#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35 13C4-PFHpA	367.2 > 321.8	6.19e3	9.74e3	0.651	3.56	3.43	7.95	12.2	97.7	NO
33	36 18O2-PFHxS	403.0 > 102.6	6.98e2	2.33e3	0.326	3.68	3.57	3.74	11.5	91.9	NO
34	37 13C2-6:2 FTS	429.1 > 408.9	1.66e3	1.01e4	0.171	4.00	3.85	2.05	12.0	96.2	NO
35	38 13C2-PFOA	414.9 > 369.7	9.22e3	1.01e4	0.903	4.07	3.94	11.4	12.6	100.7	NO
36	39 13C5-PFNA	468.2 > 422.9	9.35e3	1.05e4	0.844	4.54	4.41	11.1	13.2	105.4	NO
37	40 13C8-PFOA	506.1 > 77.7	1.56e3	9.44e3	0.165	4.61	4.48	2.07	12.5	99.9	NO
38	41 13C8-PFOS	507.0 > 79.9	2.35e3	3.04e3	0.920	4.62	4.50	9.67	10.5	84.1	NO
39	42 13C2-PFDA	515.1 > 469.9	7.57e3	7.99e3	1.044	4.82	4.82	11.8	11.3	90.8	NO
40	43 13C2-8:2 FTS	529.1 > 508.7	1.03e3	9.74e3	0.087	4.89	4.76	1.33	15.3	122.6	NO
41	44 d3-N-MeFOSAA	573.3 > 419	2.21e3	9.44e3	0.227	5.08	4.97	2.93	12.9	103.0	NO
42	45 d5-N-EiFOSAA	589.3 > 419	2.64e3	9.44e3	0.313	5.27	5.15	3.49	11.1	89.1	NO
43	46 13C2-PFUdA	565 > 519.8	7.96e3	9.44e3	0.899	5.28	5.17	10.6	11.7	93.9	NO
44	47 13C2-PFDoA	615.0 > 569.7	6.31e3	9.44e3	0.645	5.60	5.48	8.36	13.0	103.7	NO
45	48 d3-N-MeFOSA	515.2 > 168.9	1.43e4	9.44e3	0.122	5.94	5.89	18.9	155	103.4	NO
46	49 13C2-PFTeDA	714.8 > 669.6	2.99e3	9.44e3	0.290	6.10	5.98	3.96	13.7	109.2	NO
47	50 d5-N-ETFOSA	531.1 > 168.9	1.61e4	9.44e3	0.131	6.34	6.32	21.3	162	108.0	NO
48	51 13C2-PFHxDA	815 > 769.7	1.72e3	9.44e3	0.377	6.45	6.37	2.28	6.04	120.9	NO
49	52 d7-N-MeFOSE	623.1 > 58.9	1.60e4	9.44e3	0.140	6.42	6.41	21.2	152	101.5	NO
50	53 d9-N-EiFOSE	639.2 > 58.8	1.48e4	9.44e3	0.127	6.57	6.56	19.7	155	103.3	NO
51	54 13C4-PFBA	217. > 171.8	3.86e3	3.86e3	1.000	1.44	1.31	12.5	12.5	100.0	NO
52	55 13C5-PFHxA	318 > 272.9	9.74e3	9.74e3	1.000	3.00	2.90	12.5	12.5	100.0	NO
53	56 13C3-PFHxS	401.9 > 79.9	2.33e3	2.33e3	1.000	3.68	3.57	12.5	12.5	100.0	NO
54	57 13C8-PFOA	421.3 > 376	1.01e4	1.01e4	1.000	4.07	3.94	12.5	12.5	100.0	NO
55	58 13C9-PFNA	472.2 > 426.9	1.05e4	1.05e4	1.000	4.54	4.41	12.5	12.5	100.0	NO
56	59 13C4-PFOS	503 > 79.9	3.04e3	3.04e3	1.000	4.63	4.50	12.5	12.5	100.0	NO
57	60 13C6-PFDA	519.1 > 473.7	7.99e3	7.99e3	1.000	4.94	4.82	12.5	12.5	100.0	NO
58	61 13C7-PFUdA	570.1 > 524.8	9.44e3	9.44e3	1.000	5.28	5.17	12.5	12.5	100.0	NO

5/15/18

Dataset: Untitled

Last Altered: Monday, January 15, 2018 15:03:31 Pacific Standard Time

Printed: Monday, January 15, 2018 15:07:47 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_010818D.mdb 15 Jan 2018 12:58:53

Calibration: 15 Jan 2018 15:03:31

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180114M1_1	ST180114M1-1 PFC CS-2 17L2606	14-Jan-18	13:30:44
2	180114M1_2	ST180114M1-2 PFC CS-1 17L2607	14-Jan-18	13:42:02
3	180114M1_3	ST180114M1-3 PFC CS0 17L2608	14-Jan-18	13:53:10
4	180114M1_4	ST180114M1-4 PFC CS1 17L2609	14-Jan-18	14:04:21
5	180114M1_5	ST180114M1-5 PFC CS2 17L2610	14-Jan-18	14:15:32
6	180114M1_6	ST180114M1-6 PFC CS3 17L2611	14-Jan-18	14:26:42
7	180114M1_7	ST180114M1-7 PFC CS4 17L1208	14-Jan-18	14:37:53
8	180114M1_8	ST180114M1-8 PFC CS5 17L2613	14-Jan-18	14:49:04
9	180114M1_9	IPA	14-Jan-18	15:00:15
10	180114M1_11	ICV180114M1-1 PFC ICV 17L1201	14-Jan-18	15:11:29
11	180114M1_12	IPA	14-Jan-18	15:31:46
12	180114M1_13	1701852-01@10X IR03-MW034-C2-17D 0.26...	14-Jan-18	15:43:14
13	180114M1_14	1701852-02@10X IR03-MW018B-C1-17D 0.2...	14-Jan-18	16:07:42
14	180114M1_15	1701852-03@20X IR03-MW018A-C2-17D 0.2...	14-Jan-18	16:19:11
15	180114M1_16	1701852-03@10X IR03-MW018A-C2-17D 0.2...	14-Jan-18	16:30:38
16	180114M1_17	1701852-02 IR03-MW018B-C1-17D 0.25583	14-Jan-18	16:42:04
17	180114M1_18	IPA	14-Jan-18	16:53:31
18	180114M1_19	1701852-03 IR03-MW018A-C2-17D 0.26605	14-Jan-18	17:04:58
19	180114M1_20	IPA	14-Jan-18	17:16:25
20	180114M1_21	1701905-03RE1@40X WINF1712061655JLB ...	14-Jan-18	17:27:52
21	180114M1_22	B7L0101-BS1 OPR 0.25	14-Jan-18	17:39:19
22	180114M1_23	IPA	14-Jan-18	17:50:46
23	180114M1_24	B7L0101-BLK1 Method Blank 0.25	14-Jan-18	18:02:13
24	180114M1_25	1701840-04 YS22-GW16-1217 0.1211	14-Jan-18	18:13:39
25	180114M1_26	1701840-05 YS22-GW10-1217 0.11512	14-Jan-18	18:25:06
26	180114M1_27	1701851-01 FT-PZ-462S-20171202 0.22334	14-Jan-18	18:36:33
27	180114M1_28	IPA	14-Jan-18	18:48:00
28	180114M1_29	ST180114M1-9 PFC CS3 17L2611	14-Jan-18	18:59:27

Dataset: U:\Q4.PRO\results\180115M2\180115M2-26.qld

PFDOA  
Ⓐ PFDS > 130%

Last Altered: Tuesday, January 16, 2018 10:44:16 Pacific Standard Time  
Printed: Tuesday, January 16, 2018 10:44:51 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_011518.mdb 15 Jan 2018 11:38:30  
Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

AC  
1/16/18  
JJA  
01/16/2018

Name: 180115M2\_26, Date: 16-Jan-2018, Time: 05:00:41, ID: ST180115M2-9 PFC CS3 17L2611, Description: PFC CS3 17L2611

#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	1.36e4	1.21e4	1.0000		1.64	1.51	14.1	10.538	105.4
2	2 PFPeA	263.1 > 218.9	1.41e4	1.36e4	1.0000		2.60	2.47	13.0	11.239	112.4
3	3 PFBS	299.0 > 79.7	2.88e3	1.63e3	1.0000		2.87	2.74	22.1	11.505	115.0
4	4 PFHxA	313.2 > 268.9	1.64e4	4.24e3	1.0000		3.36	3.23	19.3	10.991	109.9
5	5 PFHpA	363.0 > 318.9	1.32e4	1.05e4	1.0000		4.00	3.85	15.7	10.511	105.1
6	6 L-PFHxS	398.9 > 79.6	2.36e3	1.18e3	1.0000		4.14	4.00	25.0	12.722	127.2
7	8 6:2 FTS	427.1 > 407	2.75e3	1.18e3	1.0000		4.46	4.31	29.1	10.162	101.6
8	9 L-PFOA	413 > 368.7	1.45e4	1.46e4	1.0000		4.50	4.37	12.5	10.804	108.0
9	11 PFHpS	449 > 80.0	3.63e3	1.46e4	1.0000		4.60	4.47	3.12	11.122	111.2
10	12 PFNA	463.0 > 418.8	1.65e4	1.18e4	1.0000		4.94	4.80	17.5	12.785	127.8
11	13 PFOSA	498.1 > 77.8	3.48e3	3.04e3	1.0000		5.00	4.86	14.3	11.905	119.0
12	14 L-PFOS	499 > 79.9	3.60e3	3.32e3	1.0000		5.02	4.88	13.6	12.148	121.5
13	16 PFDA	513 > 468.8	1.46e4	1.18e4	1.0000		5.31	5.17	15.5	10.744	107.4
14	17 8:2 FTS	527 > 506.9	2.71e3	1.18e4	1.0000		5.28	5.14	2.86	11.690	116.9
15	18 N-MeFOSAA	570.1 > 419	9.25e3	5.54e3	1.0000		5.45	5.32	20.9	12.719	127.2
16	19 N-EiFOSAA	584.2 > 419	6.27e3	5.85e3	1.0000		5.60	5.47	13.4	10.367	103.7
17	20 PFUDa	563.0 > 518.9	1.68e4	1.45e4	1.0000		5.62	5.49	14.4	11.421	114.2
18	21 PFDS	598.8 > 80	4.25e3	1.45e4	1.0000		5.67	5.53	3.65	10.812	108.1
19	22 PFDOA	612.9 > 569.0	1.65e4	1.04e4	1.0000		5.91	5.77	19.8	13.619	136.2
20	23 N-MeFOSA	512.1 > 168.9	9.60e3	2.38e4	1.0000		5.87	5.84	60.6	54.246	108.5
21	24 PFTrDA	662.9 > 618.9	2.08e4	1.04e4	1.0000		6.15	6.01	25.1	11.741	117.4
22	25 PFTeDA	712.9 > 668.8	1.53e4	5.64e3	1.0000		6.35	6.22	33.9	10.353	103.5
23	26 N-EiFOSA	526.1 > 168.9	1.30e4	3.45e4	1.0000		6.25	6.20	56.7	56.488	113.0
24	27 PFHxDA	813.1 > 768.6	6.51e3	3.41e3	1.0000		6.64	6.53	9.53	11.697	117.0
25	28 PFODA	913.1 > 868.8	7.22e3	3.41e3	1.0000		6.85	6.75	10.6	11.536	115.4
26	29 N-MeFOSE	616.1 > 58.9	1.38e4	3.32e4	1.0000		6.31	6.30	62.3	53.838	107.7
27	30 N-EiFOSE	630.1 > 58.9	1.67e4	3.42e4	1.0000		6.45	6.45	73.0	59.640	119.3
28	31 13C3-PFBA	216.1 > 171.8	1.21e4	1.55e4	1.0000	0.779	1.64	1.51	9.74	12.496	100.0
29	32 13C3-PFPeA	266. > 221.8	1.36e4	1.78e4	1.0000	0.797	2.60	2.47	9.56	11.993	95.9
30	33 13C3-PFBS	302. > 98.8	1.63e3	1.78e4	1.0000	0.095	2.87	2.74	1.15	12.066	96.5
31	34 13C2-PFHxA	315 > 269.8	4.24e3	1.78e4	1.0000	0.636	3.36	3.23	2.98	4.690	93.8

10-130

136.2

50-150

Dataset: Untitled

Last Altered: Tuesday, January 16, 2018 14:20:11 Pacific Standard Time

Printed: Tuesday, January 16, 2018 14:20:51 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS\_FULL\_80C\_011518.mdb 16 Jan 2018 13:43:12

Calibration: U:\Q4.PRO\CurveDB\C18\_VAL-PFAS\_Q4\_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180115M2_1	ST180115M2-1 PFC CS-2 17L2606	16-Jan-18	00:14:07
2	180115M2_2	ST180115M2-2 PFC CS-1 17L2607	16-Jan-18	00:25:32
3	180115M2_3	ST180115M2-3 PFC CS0 17L2608	16-Jan-18	00:37:02
4	180115M2_4	ST180115M2-4 PFC CS1 17L2609	16-Jan-18	00:48:46
5	180115M2_5	ST180115M2-5 PFC CS2 17L2610	16-Jan-18	01:00:17
6	180115M2_6	ST180115M2-6 PFC CS3 17L2611	16-Jan-18	01:11:44
7	180115M2_7	ST180115M2-7 PFC CS4 17L1208	16-Jan-18	01:23:11
8	180115M2_8	ST180115M2-8 PFC CS5 17L2613	16-Jan-18	01:34:38
9	180115M2_9	IPA	16-Jan-18	01:46:05
10	180115M2_10	ICV180115M2-1 PFC ICV 17L1201	16-Jan-18	01:57:31
11	180115M2_11	IPA	16-Jan-18	02:08:58
12	180115M2_12	1701851-03 FT-PZ-455S-20171202 0.2638	16-Jan-18	02:20:26
13	180115M2_13	1701851-04 FT-PZ-455I-20171202 0.25637	16-Jan-18	02:31:52
14	180115M2_14	1701851-05 FT-PZ-453S-20171202 0.23285	16-Jan-18	02:43:19
15	180115M2_15	1701851-06 FT-PZ-453S-FRB-20171202 0.26...	16-Jan-18	02:54:46
16	180115M2_16	1701851-07 FT-PZ-456I-FRB-20171204 0.2536	16-Jan-18	03:06:13
17	180115M2_17	1701851-08 FT-PZ-456I-20171204 0.26041	16-Jan-18	03:17:39
18	180115M2_18	1701851-09 FT-PZ-456S-20171204 0.25898	16-Jan-18	03:29:06
19	180115M2_19	1701944-01 GW-PT-CHIN-254.5-260.5 0.11993	16-Jan-18	03:40:33
20	180115M2_20	1701944-02 GW-PT-CHIN-71-77 0.11916	16-Jan-18	03:52:00
21	180115M2_21	1701944-03 GW-PT-CHIN-178-184 0.11889	16-Jan-18	04:03:27
22	180115M2_22	1701944-04 GW-PT-CHIN-108-114 0.12008	16-Jan-18	04:14:54
23	180115M2_23	1701944-05 GW-PT-CHIN-57-63 0.11948	16-Jan-18	04:26:21
24	180115M2_24	1701944-06 FB-PT-Diwater 0.11902	16-Jan-18	04:37:48
25	180115M2_25	IPA	16-Jan-18	04:49:15
26	180115M2_26	ST180115M2-9 PFC CS3 17L2611	16-Jan-18	05:00:41
27	180115M2_27	IPA	16-Jan-18	05:12:08
28	180115M2_28	1701944-07 GW-PT-CHIN-254.5-260.5-Dup 0...	16-Jan-18	05:23:43
29	180115M2_29	1701944-08 GW-PT-CHIN-116-122 0.11949	16-Jan-18	05:35:10
30	180115M2_30	1701944-09 EB-PT-Waterlevel 0.10468	16-Jan-18	05:46:37
31	180115M2_31	1701944-10 EB-PT-grundfos 0.11733	16-Jan-18	05:58:04

Dataset: Untitled

Last Altered: Tuesday, January 16, 2018 14:20:11 Pacific Standard Time  
Printed: Tuesday, January 16, 2018 14:20:51 Pacific Standard Time

**Compound name: PFBA**

	Name	ID	Acq.Date	Acq.Time
66	180115M2_66	1701852-03@20X IR03-MW018A-C2-17D 0.2...	16-Jan-18	12:45:47
67	180115M2_67	IPA	16-Jan-18	12:57:13
68	180115M2_68	1701852-02 IR03-MW018B-C1-17D 0.25583	16-Jan-18	13:08:40
69	180115M2_69	IPA	16-Jan-18	13:20:07
70	180115M2_70	1701840-05 YS22-GW10-1217 0.11512	16-Jan-18	13:31:34
71	180115M2_71	IPA	16-Jan-18	13:43:01
72	180115M2_72	ST180115M2-12 PFC CS3 17L2611	16-Jan-18	13:54:28

Calverton  
SDG 1701851

Sample Identification FT-PZ-456I-20171204

Compound PERFLUORONONANOIC ACID (PFNA)

Sample volume (L) 0.26

Internal standard concentration 12.5

Concentration using quadratic/calibration curve

Area\*(IS concentration/IS area) 2.500  
 $1510*(12.5/7550)$

Curve PFNA

Calibration curve  $(y)=0.00123227*x^2+1.35269*x-0.0256811$

pg 588 of data package

$0.00123227*x^2+1.35269*x-0.0256811=2.5$

$0.00123227*x^2+1.35269*x-2.5256811=0$

a= 0.00123227

b= 1.35269

c= -2.5256811

$D=1.35269^2-4*-0.00123227*-2.5256811$  1.842220

SQRT D 1.357283876

$x=(-(1.35269+1.357283876)/(2*0.00123227))$  1.8639893

PFDA result Conc = x/wt

7.169189 ng/L

result reported

7.17 ng/L

DODCMD_ID	INSTALLATION_ID	SDG	SITE_NAME	NORM_SITE_NAME	LOCATION_NAME	LOCATION_TYPE_DESC	COORD_X	COORD_Y	CONTRACT_ID	DO_CTO_NUMBER	CONTR_NAME	SAMPLE_NAME	SAMPLE_MATRIX_DESC	SAMPLE_TYPE_DESC	COLLECT_DATE	ANALYTICAL_METHOD	ANALYTICAL_METHOD_GRP_DESC
MID_ATLANTIC	CALVERTON_NWIRP	1701851							N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ456I-FRB-20171204	Water for QC samples	Field Reagent Blank	4-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701851	SITE 00002	SITE 00002	FTPZ455I	Piezometer	1315220.177	270863.669	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ455I-20171202	Ground water	Normal (Regular)	2-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701851							N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ453S-FRB-20171202	Water for QC samples	Field Reagent Blank	2-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701851	SITE 00002	SITE 00002	FTPZ462S	Piezometer	1316251.806	269926.504	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ462S-20171202	Ground water	Normal (Regular)	2-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701851	SITE 00002	SITE 00002	FTPZ455S	Piezometer	1315222.926	270862.331	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ455S-20171202	Ground water	Normal (Regular)	2-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701851	SITE 00002	SITE 00002	FTPZ462I	Piezometer	1316248.991	269925.259	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ462I-20171202	Ground water	Normal (Regular)	2-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701851	SITE 00002	SITE 00002	FTPZ456I	Piezometer	1318125.709	269069.074	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ456I-20171204	Ground water	Normal (Regular)	4-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701851	SITE 00002	SITE 00002	FTPZ456S	Piezometer	1318124.808	269071.797	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ456S-20171204	Ground water	Normal (Regular)	4-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701851	SITE 00002	SITE 00002	FTPZ453S	Piezometer	1317310.932	271720.836	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ453S-20171202	Ground water	Normal (Regular)	2-Dec-17	537	Perfluoroalkyl Compounds