

"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","1763-23-1","Perfluorooctanesulfonic acid (PFOS)","330","ng/L","D B","10","DL","","TRG","","","37","LOQ","NO",-99","","267","10.00","28",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","2058-94-8","Perfluoroundecanoic acid (PFUnA)","14","ng/L","U","6.7","DL","","TRG","","","19","LOQ","NO",-99","","267","10.00","14",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","2706-90-3","Perfluoropentanoic acid (PFPeA)","220","ng/L","D","4.0","DL","","TRG","","","19","LOQ","NO",-99","","267","10.00","9.4",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","307-24-4","Perfluorohexanoic acid (PFHxA)","380","ng/L","D","4.4","DL","","TRG","","","19","LOQ","YES",-99","","267","10.00","9.4",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","307-55-1","Perfluorododecanoic acid (PFDoA)","14","ng/L","U Q","4.9","DL","","TRG","","","19","LOQ","NO",-99","","267","10.00","14",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","335-67-1","Perfluorooctanoic acid (PFOA)","2000","ng/L","D M","5.1","DL","","TRG","","","19","LOQ","YES",-99","","267","10.00","14",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","335-76-2","Perfluorodecanoic acid (PFDA)","9.4","ng/L","U","4.5","DL","","TRG","","","19","LOQ","NO",-99","","267","10.00","9.4",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","335-77-3","Perfluorodecanesulfonic acid (PFDS)","14","ng/L","U","5.2","DL","","TRG","","","19","LOQ","NO",-99","","267","10.00","14",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","355-46-4","Perfluorohexanesulfonic acid (PFHxS)","440","ng/L","D","3.6","DL","","TRG","","","19","LOQ","YES",-99","","267","10.00","9.4",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","375-22-4","Perfluorobutanoic acid (PFBA)","77","ng/L","D M","5.5","DL","","TRG","","","19","LOQ","NO",-99","","267","10.00","14",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","375-73-5","Perfluorobutanesulfonic acid (PFBS)","56","ng/L","D","4.3","DL","","TRG","","","19","LOQ","NO",-99","","267","10.00","9.4",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","375-85-9","Perfluoroheptanoic acid (PFHpA)","72","ng/L","D","5.7","DL","","TRG","","","19","LOQ","NO",-99","","267","10.00","14",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","375-92-8","Perfluoroheptanesulfonic Acid (PFHpS)","8.1","ng/L","J D","3.5","DL","","TRG","","","19","LOQ","NO",-99","","267","10.00","9.4",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","375-95-1","Perfluorononanoic acid (PFNA)","14","ng/L","U","4.9","DL","","TRG","","","19","LOQ","NO",-99","","267","10.00","14",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","376-06-7","Perfluorotetradecanoic acid (PFTeA)","28","ng/L","U","7.8","DL","","TRG","","","37","LOQ","NO",-99","","267","10.00","28",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","72629-94-8","Perfluorotridecanoic acid (PFTriA)","28","ng/L","U","7.1","DL","","TRG","","","37","LOQ","NO",-99","","267","10.00","28",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","754-91-6","Perfluorooctanesulfonamide (FOSA)","28","ng/L","U M","12","DL","","TRG","","","37","LOQ","NO",-99","","267","10.00","28",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","STL00990","13C4 PFOA","79","ng/L","","-99","DL","","TRG","84","","-99","LOQ","YES","93.6","","267","10.00","940",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","STL00991","13C4 PFOS","82","ng/L","","-99","DL","","TRG","92","","-99","LOQ","YES","89.5","","267","10.00","940",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","STL00992","13C4 PFBA","87","ng/L","","-99","DL","","TRG","93","","-99","LOQ","YES","93.6","","267","10.00","940",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","STL00993","13C2 PFHxA","87","ng/L","","-99","DL","","TRG","93","","-99","LOQ","YES","93.6","","267","10.00","940",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","STL00994","18O2 PFHxS","78","ng/L","","-99","DL","","TRG","88","","-99","LOQ","YES","88.6","","267","10.00","940",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","STL00995","13C5 PFNA","87","ng/L","","-99","DL","","TRG","93","","-99","LOQ","YES","93.6","","267","10.00","940",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","STL00996","13C2 PFDA","83","ng/L","","-99","DL","","TRG","89","","-99","LOQ","YES","93.6","","267","10.00","940",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","STL00997","13C2 PFUnA","88","ng/L","","-99","DL","","TRG","94","","-99","LOQ","YES","93.6","","267","10.00","940",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","STL00998","13C2 PFDoA","85","ng/L","","-99","DL","","TRG","90","","-99","LOQ","YES","93.6","","267","10.00","940",""
"TP-PFC-036-TPI","EPA 537 (Mod)","DL","320-44773-1","TALSAC","STL01056","13C8

FOSA", "78", "ng/L", "", "-99", "DL", "", "TRG", "83", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "940", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "DL", "320-44773-1", "TALSAC", "STL01892", "13C4
PFHpA", "82", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "940", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "DL", "320-44773-1", "TALSAC", "STL01893", "13C5
PFPeA", "84", "ng/L", "", "-99", "DL", "", "TRG", "90", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "940", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "DL", "320-44773-1", "TALSAC", "STL02116", "13C2
PFTeDA", "73", "ng/L", "", "-99", "DL", "", "TRG", "78", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "940", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "DL", "320-44773-1", "TALSAC", "STL02337", "13C3
PFBS", "74", "ng/L", "", "-99", "DL", "", "TRG", "85", "", "-99", "LOQ", "YES", "87.1", "", "267", "10.00", "940", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RE", "320-44773-1", "TALSAC", "307-55-1", "Perfluorododecanoic acid
(PFDoA)", "1.4", "ng/L", "U H", "0.49", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "266.8", "10.00", "1.4", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RE", "320-44773-1", "TALSAC", "STL00998", "13C2
PFDoA", "100", "ng/L", "", "-99", "DL", "", "TRG", "109", "", "-99", "LOQ", "YES", "93.7", "", "266.8", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "1763-23-1", "Perfluorooctanesulfonic acid
(PFOS)", "330", "ng/L", "B", "1.0", "DL", "", "TRG", "", "", "3.7", "LOQ", "YES", "-99", "", "267", "10.00", "2.8", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "2058-94-8", "Perfluoroundecanoic acid
(PFUnA)", "1.4", "ng/L", "U", "0.67", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267", "10.00", "1.4", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "2706-90-3", "Perfluoropentanoic acid
(PFPeA)", "210", "ng/L", "", "0.40", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267", "10.00", "0.94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "307-24-4", "Perfluorohexanoic acid
(PFHxA)", "390", "ng/L", "E", "0.44", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "267", "10.00", "0.94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "307-55-1", "Perfluorododecanoic acid
(PFDoA)", "1.4", "ng/L", "U Q", "0.49", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267", "10.00", "1.4", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "335-67-1", "Perfluorooctanoic acid
(PFOA)", "1400", "ng/L", "E M", "0.51", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "267", "10.00", "1.4", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "335-76-2", "Perfluorodecanoic acid
(PFDA)", "0.81", "ng/L", "J", "0.45", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267", "10.00", "0.94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "335-77-3", "Perfluorodecanesulfonic acid
(PFDS)", "1.4", "ng/L", "U", "0.52", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267", "10.00", "1.4", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "355-46-4", "Perfluorohexanesulfonic acid
(PFHxS)", "400", "ng/L", "E", "0.36", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "267", "10.00", "0.94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "375-22-4", "Perfluorobutanoic acid
(PFBA)", "77", "ng/L", "", "0.55", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267", "10.00", "1.4", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "375-73-5", "Perfluorobutanesulfonic acid
(PFBS)", "57", "ng/L", "", "0.43", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267", "10.00", "0.94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "375-85-9", "Perfluoroheptanoic acid
(PFHpA)", "68", "ng/L", "", "0.57", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267", "10.00", "1.4", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "375-92-8", "Perfluoroheptanesulfonic Acid
(PFHpS)", "6.6", "ng/L", "", "0.35", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267", "10.00", "0.94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "375-95-1", "Perfluorononanoic acid
(PFNA)", "2.7", "ng/L", "", "0.49", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267", "10.00", "1.4", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "376-06-7", "Perfluorotetradecanoic acid
(PFTeA)", "2.8", "ng/L", "U M", "0.78", "DL", "", "TRG", "", "", "3.7", "LOQ", "YES", "-99", "", "267", "10.00", "2.8", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "72629-94-8", "Perfluorotridecanoic acid
(PFTriA)", "2.8", "ng/L", "U", "0.71", "DL", "", "TRG", "", "", "3.7", "LOQ", "YES", "-99", "", "267", "10.00", "2.8", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "754-91-6", "Perfluorooctanesulfonamide
(FOSA)", "2.8", "ng/L", "U", "1.2", "DL", "", "TRG", "", "", "3.7", "LOQ", "YES", "-99", "", "267", "10.00", "2.8", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL00990", "13C4
PFOA", "83", "ng/L", "", "-99", "DL", "", "TRG", "88", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL00991", "13C4
PFOS", "100", "ng/L", "", "-99", "DL", "", "TRG", "113", "", "-99", "LOQ", "YES", "89.5", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL00992", "13C4
PFBA", "91", "ng/L", "", "-99", "DL", "", "TRG", "98", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL00993", "13C2

PFHxA", "93", "ng/L", "", "-99", "DL", "", "TRG", "99", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL00994", "18O2
PFHxS", "90", "ng/L", "", "-99", "DL", "", "TRG", "102", "", "-99", "LOQ", "YES", "88.6", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL00995", "13C5
PFNA", "100", "ng/L", "", "-99", "DL", "", "TRG", "111", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL00996", "13C2
PFDA", "110", "ng/L", "", "-99", "DL", "", "TRG", "114", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL00997", "13C2
PFUnA", "110", "ng/L", "", "-99", "DL", "", "TRG", "113", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL00998", "13C2
PFDaA", "98", "ng/L", "", "-99", "DL", "", "TRG", "104", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL01056", "13C8
FOSA", "98", "ng/L", "", "-99", "DL", "", "TRG", "105", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL01892", "13C4
PFHpA", "98", "ng/L", "", "-99", "DL", "", "TRG", "104", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL01893", "13C5
PFPeA", "96", "ng/L", "", "-99", "DL", "", "TRG", "103", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL02116", "13C2
PFTeDA", "90", "ng/L", "", "-99", "DL", "", "TRG", "96", "", "-99", "LOQ", "YES", "93.6", "", "267", "10.00", "94", ""
"TP-PFC-036-TPI", "EPA 537 (Mod)", "RES", "320-44773-1", "TALSAC", "STL02337", "13C3
PFBS", "89", "ng/L", "", "-99", "DL", "", "TRG", "103", "", "-99", "LOQ", "YES", "87.1", "", "267", "10.00", "94", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid (PFOS)", "360", "ng/L", "D
B", "20", "DL", "", "TRG", "", "", "74", "LOQ", "YES", "-99", "", "270", "10.00", "56", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "2058-94-
8", "Perfluoroundecanoic acid
(PFUnA)", "28", "ng/L", "U", "13", "DL", "", "TRG", "", "", "37", "LOQ", "NO", "-99", "", "270", "10.00", "28", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "2706-90-
3", "Perfluoropentanoic acid
(PFPeA)", "510", "ng/L", "D", "8.0", "DL", "", "TRG", "", "", "37", "LOQ", "YES", "-99", "", "270", "10.00", "19", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "307-24-4", "Perfluorohexanoic
acid (PFHxA)", "860", "ng/L", "D", "8.7", "DL", "", "TRG", "", "", "37", "LOQ", "YES", "-99", "", "270", "10.00", "19", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "307-55-
1", "Perfluorododecanoic acid (PFDaA)", "28", "ng/L", "U
Q", "9.6", "DL", "", "TRG", "", "", "37", "LOQ", "NO", "-99", "", "270", "10.00", "28", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "335-67-1", "Perfluorooctanoic
acid (PFOA)", "5900", "ng/L", "D M", "10", "DL", "", "TRG", "", "", "37", "LOQ", "YES", "-99", "", "270", "10.00", "28", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "335-76-2", "Perfluorodecanoic
acid (PFDA)", "19", "ng/L", "U", "8.9", "DL", "", "TRG", "", "", "37", "LOQ", "NO", "-99", "", "270", "10.00", "19", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "335-77-
3", "Perfluorodecanesulfonic acid
(PFDS)", "28", "ng/L", "U", "10", "DL", "", "TRG", "", "", "37", "LOQ", "NO", "-99", "", "270", "10.00", "28", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "355-46-
4", "Perfluorohexanesulfonic acid
(PFHxS)", "1000", "ng/L", "D", "7.0", "DL", "", "TRG", "", "", "37", "LOQ", "YES", "-99", "", "270", "10.00", "19", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "375-22-4", "Perfluorobutanoic
acid (PFBA)", "170", "ng/L", "D", "11", "DL", "", "TRG", "", "", "37", "LOQ", "NO", "-99", "", "270", "10.00", "28", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "375-73-
5", "Perfluorobutanesulfonic acid
(PFBS)", "150", "ng/L", "D", "8.5", "DL", "", "TRG", "", "", "37", "LOQ", "NO", "-99", "", "270", "10.00", "19", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "375-85-
9", "Perfluoroheptanoic acid
(PFHpA)", "170", "ng/L", "D", "11", "DL", "", "TRG", "", "", "37", "LOQ", "NO", "-99", "", "270", "10.00", "28", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "375-92-

8", "Perfluoroheptanesulfonic Acid (PFHpS)", "17", "ng/L", "J
D", "6.9", "DL", "", "TRG", "", "", "37", "LOQ", "NO", "-99", "", "270", "10.00", "19", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "375-95-1", "Perfluorononanoic
acid (PFNA)", "28", "ng/L", "U", "9.6", "DL", "", "TRG", "", "", "37", "LOQ", "NO", "-99", "", "270", "10.00", "28", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "376-06-
7", "Perfluorotetradecanoic acid
(PFTeA)", "56", "ng/L", "U", "15", "DL", "", "TRG", "", "", "74", "LOQ", "NO", "-99", "", "270", "10.00", "56", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "72629-94-
8", "Perfluorotridecanoic acid
(PFTriA)", "56", "ng/L", "U", "14", "DL", "", "TRG", "", "", "74", "LOQ", "NO", "-99", "", "270", "10.00", "56", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "754-91-
6", "Perfluorooctanesulfonamide
(FOSA)", "56", "ng/L", "U", "24", "DL", "", "TRG", "", "", "74", "LOQ", "NO", "-99", "", "270", "10.00", "56", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL00990", "13C4
PFOA", "81", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL00991", "13C4
PFOS", "86", "ng/L", "", "-99", "DL", "", "TRG", "97", "", "-99", "LOQ", "YES", "88.5", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL00992", "13C4
PFBA", "90", "ng/L", "", "-99", "DL", "", "TRG", "97", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL00993", "13C2
PFHxA", "89", "ng/L", "", "-99", "DL", "", "TRG", "96", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL00994", "18O2
PFHxS", "83", "ng/L", "", "-99", "DL", "", "TRG", "94", "", "-99", "LOQ", "YES", "87.6", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL00995", "13C5
PFNA", "90", "ng/L", "", "-99", "DL", "", "TRG", "98", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL00996", "13C2
PFDA", "84", "ng/L", "", "-99", "DL", "", "TRG", "90", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL00997", "13C2
PFUnA", "86", "ng/L", "", "-99", "DL", "", "TRG", "93", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL00998", "13C2
PFDoA", "81", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL01056", "13C8
FOSA", "81", "ng/L", "", "-99", "DL", "", "TRG", "88", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL01892", "13C4
PFHpA", "85", "ng/L", "", "-99", "DL", "", "TRG", "91", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL01893", "13C5
PFPeA", "82", "ng/L", "", "-99", "DL", "", "TRG", "88", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL02116", "13C2
PFTeDA", "81", "ng/L", "", "-99", "DL", "", "TRG", "88", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "DL", "320-44773-10", "TALSAC", "STL02337", "13C3
PFBS", "72", "ng/L", "", "-99", "DL", "", "TRG", "83", "", "-99", "LOQ", "YES", "86.1", "", "270", "10.00", "1900", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RE", "320-44773-10", "TALSAC", "307-55-
1", "Perfluorododecanoic acid (PFDoA)", "1.6", "ng/L", "U
H", "0.56", "DL", "", "TRG", "", "", "2.2", "LOQ", "NO", "-99", "", "232", "10.00", "1.6", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RE", "320-44773-10", "TALSAC", "STL00998", "13C2
PFDoA", "140", "ng/L", "", "-99", "DL", "", "TRG", "126", "", "-99", "LOQ", "YES", "108", "", "232", "10.00", "110", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid (PFOS)", "380", "ng/L", "E
B", "1.0", "DL", "", "TRG", "", "", "3.7", "LOQ", "NO", "-99", "", "270", "10.00", "2.8", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "2058-94-
8", "Perfluoroundecanoic acid (PFUnA)", "1.4", "ng/L", "U
M", "0.67", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "270", "10.00", "1.4", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "2706-90-
3", "Perfluoropentanoic acid

(PFPeA)", "450", "ng/L", "E", "0.40", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "270", "10.00", "0.93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "307-24-4", "Perfluorohexanoic acid
(PFHxA)", "760", "ng/L", "E", "0.44", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "270", "10.00", "0.93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "307-55-1", "Perfluorododecanoic acid (PFDoA)", "1.4", "ng/L", "U
Q", "0.48", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "270", "10.00", "1.4", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "335-67-1", "Perfluorooctanoic acid (PFOA)", "3200", "ng/L", "E
M", "0.50", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "270", "10.00", "1.4", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "335-76-2", "Perfluorodecanoic acid
(PFDA)", "0.99", "ng/L", "J", "0.44", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "270", "10.00", "0.93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "335-77-3", "Perfluorodecanesulfonic acid
(PFDS)", "1.4", "ng/L", "U", "0.52", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "270", "10.00", "1.4", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "355-46-4", "Perfluorohexanesulfonic acid
(PFHxS)", "820", "ng/L", "E", "0.35", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "270", "10.00", "0.93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "375-22-4", "Perfluorobutanoic acid
(PFBA)", "160", "ng/L", "", "0.55", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "270", "10.00", "1.4", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "375-73-5", "Perfluorobutanesulfonic acid
(PFBS)", "150", "ng/L", "", "0.43", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "270", "10.00", "0.93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "375-85-9", "Perfluoroheptanoic acid
(PFHpA)", "180", "ng/L", "", "0.56", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "270", "10.00", "1.4", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "375-92-8", "Perfluoroheptanesulfonic Acid
(PFHpS)", "11", "ng/L", "", "0.34", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "270", "10.00", "0.93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "375-95-1", "Perfluorononanoic acid
(PFNA)", "3.5", "ng/L", "", "0.48", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "270", "10.00", "1.4", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "376-06-7", "Perfluorotetradecanoic acid
(PFTeA)", "2.8", "ng/L", "U", "0.77", "DL", "", "TRG", "", "", "3.7", "LOQ", "YES", "-99", "", "270", "10.00", "2.8", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "72629-94-8", "Perfluorotridecanoic acid
(PFTriA)", "2.8", "ng/L", "U", "0.70", "DL", "", "TRG", "", "", "3.7", "LOQ", "YES", "-99", "", "270", "10.00", "2.8", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "754-91-6", "Perfluorooctanesulfonamide (FOSA)", "2.8", "ng/L", "U
M", "1.2", "DL", "", "TRG", "", "", "3.7", "LOQ", "YES", "-99", "", "270", "10.00", "2.8", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL00990", "13C4
PFOA", "81", "ng/L", "", "-99", "DL", "", "TRG", "88", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL00991", "13C4
PFOS", "120", "ng/L", "", "-99", "DL", "", "TRG", "139", "", "-99", "LOQ", "YES", "88.5", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL00992", "13C4
PFBA", "110", "ng/L", "", "-99", "DL", "", "TRG", "118", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL00993", "13C2
PFHxA", "110", "ng/L", "", "-99", "DL", "", "TRG", "122", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL00994", "18O2
PFHxS", "110", "ng/L", "", "-99", "DL", "", "TRG", "122", "", "-99", "LOQ", "YES", "87.6", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL00995", "13C5

PFNA", "130", "ng/L", "", "-99", "DL", "", "TRG", "143", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL00996", "13C2
PFDA", "120", "ng/L", "", "-99", "DL", "", "TRG", "132", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL00997", "13C2
PFUnA", "140", "ng/L", "", "-99", "DL", "", "TRG", "147", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL00998", "13C2
PFDaA", "130", "ng/L", "", "-99", "DL", "", "TRG", "138", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL01056", "13C8
FOSA", "120", "ng/L", "", "-99", "DL", "", "TRG", "132", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL01892", "13C4
PFHpA", "110", "ng/L", "", "-99", "DL", "", "TRG", "122", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL01893", "13C5
PFPeA", "120", "ng/L", "", "-99", "DL", "", "TRG", "128", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL02116", "13C2
PFTeDA", "120", "ng/L", "", "-99", "DL", "", "TRG", "128", "", "-99", "LOQ", "YES", "92.6", "", "270", "10.00", "93", ""
"NASB-GWETS-EW-05-103118", "EPA 537 (Mod)", "RES", "320-44773-10", "TALSAC", "STL02337", "13C3
PFBS", "110", "ng/L", "", "-99", "DL", "", "TRG", "129", "", "-99", "LOQ", "YES", "86.1", "", "270", "10.00", "93", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RE", "320-44773-2", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid (PFOS)", "1.5", "ng/L", "J
H", "1.0", "DL", "", "TRG", "", "", "3.7", "LOQ", "NO", "-99", "", "270.7", "10.00", "2.8", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RE", "320-44773-2", "TALSAC", "307-55-1", "Perfluorododecanoic
acid (PFDaA)", "1.4", "ng/L", "U H", "0.48", "DL", "", "TRG", "", "", "1.8", "LOQ", "NO", "-99", "", "270.7", "10.00", "1.4", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RE", "320-44773-2", "TALSAC", "STL00991", "13C4
PFOS", "86", "ng/L", "", "-99", "DL", "", "TRG", "97", "", "-99", "LOQ", "YES", "88.3", "", "270.7", "10.00", "92", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RE", "320-44773-2", "TALSAC", "STL00998", "13C2
PFDaA", "79", "ng/L", "", "-99", "DL", "", "TRG", "85", "", "-99", "LOQ", "YES", "92.4", "", "270.7", "10.00", "92", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid (PFOS)", "2.8", "ng/L", "J
B", "1.0", "DL", "", "TRG", "", "", "3.8", "LOQ", "YES", "-99", "", "265.4", "10.00", "2.8", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "2058-94-
8", "Perfluoroundecanoic acid
(PFUnA)", "1.4", "ng/L", "U", "0.68", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "1.4", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "2706-90-3", "Perfluoropentanoic
acid (PFPeA)", "290", "ng/L", "", "0.41", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "0.94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "307-24-4", "Perfluorohexanoic
acid (PFHxA)", "300", "ng/L", "", "0.44", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "0.94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "307-55-1", "Perfluorododecanoic
acid (PFDaA)", "1.4", "ng/L", "U Q", "0.49", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "1.4", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "335-67-1", "Perfluorooctanoic
acid (PFOA)", "89", "ng/L", "M", "0.51", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "1.4", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "335-76-2", "Perfluorodecanoic
acid (PFDA)", "0.94", "ng/L", "U", "0.45", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "0.94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "335-77-
3", "Perfluorodecanesulfonic acid
(PFDS)", "1.4", "ng/L", "U", "0.53", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "1.4", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "355-46-
4", "Perfluorohexanesulfonic acid
(PFHxS)", "6.4", "ng/L", "", "0.36", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "0.94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "375-22-4", "Perfluorobutanoic
acid (PFBA)", "120", "ng/L", "", "0.56", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "1.4", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "375-73-
5", "Perfluorobutanesulfonic acid
(PFBS)", "15", "ng/L", "", "0.43", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "0.94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "375-85-9", "Perfluoroheptanoic

acid (PFHpA)", "11", "ng/L", "", "0.57", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "1.4", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "375-92-
8", "Perfluoroheptanesulfonic Acid
(PFHpS)", "0.94", "ng/L", "U", "0.35", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "0.94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "375-95-1", "Perfluorononanoic
acid (PFNA)", "1.4", "ng/L", "U", "0.49", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "265.4", "10.00", "1.4", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "376-06-
7", "Perfluorotetradecanoic acid
(PFTeA)", "2.8", "ng/L", "U", "0.78", "DL", "", "TRG", "", "", "3.8", "LOQ", "YES", "-99", "", "265.4", "10.00", "2.8", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "72629-94-
8", "Perfluorotridecanoic acid
(PFTriA)", "2.8", "ng/L", "U", "0.72", "DL", "", "TRG", "", "", "3.8", "LOQ", "YES", "-99", "", "265.4", "10.00", "2.8", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "754-91-
6", "Perfluorooctanesulfonamide (FOSA)", "2.8", "ng/L", "U
M", "1.2", "DL", "", "TRG", "", "", "3.8", "LOQ", "YES", "-99", "", "265.4", "10.00", "2.8", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL00990", "13C4
PFOA", "86", "ng/L", "", "-99", "DL", "", "TRG", "91", "", "-99", "LOQ", "YES", "94.2", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL00991", "13C4
PFOS", "83", "ng/L", "", "-99", "DL", "", "TRG", "92", "", "-99", "LOQ", "YES", "90.1", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL00992", "13C4
PFBA", "81", "ng/L", "", "-99", "DL", "", "TRG", "86", "", "-99", "LOQ", "YES", "94.2", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL00993", "13C2
PFHxA", "81", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "94.2", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL00994", "18O2
PFHxS", "81", "ng/L", "", "-99", "DL", "", "TRG", "91", "", "-99", "LOQ", "YES", "89.1", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL00995", "13C5
PFNA", "88", "ng/L", "", "-99", "DL", "", "TRG", "93", "", "-99", "LOQ", "YES", "94.2", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL00996", "13C2
PFDA", "83", "ng/L", "", "-99", "DL", "", "TRG", "89", "", "-99", "LOQ", "YES", "94.2", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL00997", "13C2
PFUnA", "90", "ng/L", "", "-99", "DL", "", "TRG", "95", "", "-99", "LOQ", "YES", "94.2", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL00998", "13C2
PFDoA", "82", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "94.2", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL01056", "13C8
FOSA", "81", "ng/L", "", "-99", "DL", "", "TRG", "86", "", "-99", "LOQ", "YES", "94.2", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL01892", "13C4
PFHpA", "84", "ng/L", "", "-99", "DL", "", "TRG", "89", "", "-99", "LOQ", "YES", "94.2", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL01893", "13C5
PFPeA", "81", "ng/L", "", "-99", "DL", "", "TRG", "86", "", "-99", "LOQ", "YES", "94.2", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL02116", "13C2
PFTeDA", "74", "ng/L", "", "-99", "DL", "", "TRG", "79", "", "-99", "LOQ", "YES", "94.2", "", "265.4", "10.00", "94", ""
"TP-PFC-036-MID-CARBON", "EPA 537 (Mod)", "RES", "320-44773-2", "TALSAC", "STL02337", "13C3
PFBS", "73", "ng/L", "", "-99", "DL", "", "TRG", "83", "", "-99", "LOQ", "YES", "87.6", "", "265.4", "10.00", "94", ""
"TP-PFC-036-TPE", "EPA 537 (Mod)", "RE", "320-44773-3", "TALSAC", "1763-23-1", "Perfluorooctanesulfonic acid
(PFOS)", "2.8", "ng/L", "U H M", "1.0", "DL", "", "TRG", "", "", "3.8", "LOQ", "NO", "-99", "", "264.8", "10.00", "2.8", ""
"TP-PFC-036-TPE", "EPA 537 (Mod)", "RE", "320-44773-3", "TALSAC", "307-55-1", "Perfluorododecanoic acid
(PFDoA)", "1.4", "ng/L", "U H", "0.49", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "264.8", "10.00", "1.4", ""
"TP-PFC-036-TPE", "EPA 537 (Mod)", "RE", "320-44773-3", "TALSAC", "STL00991", "13C4
PFOS", "86", "ng/L", "", "-99", "DL", "", "TRG", "95", "", "-99", "LOQ", "YES", "90.3", "", "264.8", "10.00", "94", ""
"TP-PFC-036-TPE", "EPA 537 (Mod)", "RE", "320-44773-3", "TALSAC", "STL00998", "13C2
PFDoA", "80", "ng/L", "", "-99", "DL", "", "TRG", "85", "", "-99", "LOQ", "YES", "94.4", "", "264.8", "10.00", "94", ""
"TP-PFC-036-TPE", "EPA 537 (Mod)", "RES", "320-44773-3", "TALSAC", "1763-23-1", "Perfluorooctanesulfonic acid
(PFOS)", "1.7", "ng/L", "J B", "1.0", "DL", "", "TRG", "", "", "3.8", "LOQ", "YES", "-99", "", "266", "10.00", "2.8", ""
"TP-PFC-036-TPE", "EPA 537 (Mod)", "RES", "320-44773-3", "TALSAC", "2058-94-8", "Perfluoroundecanoic acid

(PFUnA),"1.4","ng/L","U","0.68","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","1.4",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","2706-90-3","Perfluoropentanoic acid
(PFPeA),"280","ng/L","","0.40","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","0.94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","307-24-4","Perfluorohexanoic acid
(PFHxA),"180","ng/L","","0.44","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","0.94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","307-55-1","Perfluorododecanoic acid
(PFDoA),"1.4","ng/L","U Q","0.49","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","1.4",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","335-67-1","Perfluorooctanoic acid
(PFOA),"10","ng/L","M","0.51","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","1.4",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","335-76-2","Perfluorodecanoic acid
(PFDA),"0.94","ng/L","U","0.45","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","0.94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","335-77-3","Perfluorodecanesulfonic acid
(PFDS),"1.4","ng/L","U","0.53","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","1.4",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","355-46-4","Perfluorohexanesulfonic acid
(PFHxS),"0.79","ng/L","J M","0.36","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","0.94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","375-22-4","Perfluorobutanoic acid
(PFBA),"120","ng/L","","0.55","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","1.4",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","375-73-5","Perfluorobutanesulfonic acid
(PFBS),"5.6","ng/L","","0.43","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","0.94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","375-85-9","Perfluoroheptanoic acid
(PFHpA),"2.3","ng/L","","0.57","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","1.4",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","375-92-8","Perfluoroheptanesulfonic Acid
(PFHpS),"0.94","ng/L","U","0.35","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","0.94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","375-95-1","Perfluorononanoic acid
(PFNA),"1.4","ng/L","U","0.49","DL","","TRG","","","1.9","LOQ","YES","-99","","266","10.00","1.4",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","376-06-7","Perfluorotetradecanoic acid
(PFTeA),"2.8","ng/L","U","0.78","DL","","TRG","","","3.8","LOQ","YES","-99","","266","10.00","2.8",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","72629-94-8","Perfluorotridecanoic acid
(PFTriA),"2.8","ng/L","U","0.71","DL","","TRG","","","3.8","LOQ","YES","-99","","266","10.00","2.8",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","754-91-6","Perfluorooctanesulfonamide
(FOSA),"2.8","ng/L","U M","1.2","DL","","TRG","","","3.8","LOQ","YES","-99","","266","10.00","2.8",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","STL00990","13C4
PFOA,"87","ng/L","","-99","DL","","TRG","93","","-99","LOQ","YES","94.0","","266","10.00","94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","STL00991","13C4
PFOS,"84","ng/L","","-99","DL","","TRG","94","","-99","LOQ","YES","89.8","","266","10.00","94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","STL00992","13C4
PFBA,"83","ng/L","","-99","DL","","TRG","88","","-99","LOQ","YES","94.0","","266","10.00","94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","STL00993","13C2
PFHxA,"85","ng/L","","-99","DL","","TRG","90","","-99","LOQ","YES","94.0","","266","10.00","94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","STL00994","18O2
PFHxS,"82","ng/L","","-99","DL","","TRG","92","","-99","LOQ","YES","88.9","","266","10.00","94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","STL00995","13C5
PFNA,"90","ng/L","","-99","DL","","TRG","96","","-99","LOQ","YES","94.0","","266","10.00","94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","STL00996","13C2
PFDA,"90","ng/L","","-99","DL","","TRG","95","","-99","LOQ","YES","94.0","","266","10.00","94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","STL00997","13C2
PFUnA,"94","ng/L","","-99","DL","","TRG","100","","-99","LOQ","YES","94.0","","266","10.00","94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","STL00998","13C2
PFDoA,"88","ng/L","","-99","DL","","TRG","94","","-99","LOQ","YES","94.0","","266","10.00","94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","STL01056","13C8
FOSA,"84","ng/L","","-99","DL","","TRG","90","","-99","LOQ","YES","94.0","","266","10.00","94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","STL01892","13C4
PFHpA,"88","ng/L","","-99","DL","","TRG","93","","-99","LOQ","YES","94.0","","266","10.00","94",""
"TP-PFC-036-TPE","EPA 537 (Mod)","RES","320-44773-3","TALSAC","STL01893","13C5

PFPeA", "81", "ng/L", "", "-99", "DL", "", "TRG", "86", "", "-99", "LOQ", "YES", "94.0", "", "266", "10.00", "94", ""
"TP-PFC-036-TPE", "EPA 537 (Mod)", "RES", "320-44773-3", "TALSAC", "STL02116", "13C2
PFTeDA", "82", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "94.0", "", "266", "10.00", "94", ""
"TP-PFC-036-TPE", "EPA 537 (Mod)", "RES", "320-44773-3", "TALSAC", "STL02337", "13C3
PFBS", "71", "ng/L", "", "-99", "DL", "", "TRG", "81", "", "-99", "LOQ", "YES", "87.4", "", "266", "10.00", "94", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RE", "320-44773-4", "TALSAC", "1763-23-1", "Perfluorooctanesulfonic acid
(PFOS)", "3.0", "ng/L", "U H M", "1.1", "DL", "", "TRG", "", "", "3.9", "LOQ", "NO", "-99", "", "254.2", "10.00", "3.0", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RE", "320-44773-4", "TALSAC", "307-55-1", "Perfluorododecanoic acid
(PFDaA)", "1.5", "ng/L", "U H", "0.51", "DL", "", "TRG", "", "", "2.0", "LOQ", "NO", "-99", "", "254.2", "10.00", "1.5", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RE", "320-44773-4", "TALSAC", "STL00991", "13C4
PFOS", "89", "ng/L", "", "-99", "DL", "", "TRG", "94", "", "-99", "LOQ", "YES", "94.0", "", "254.2", "10.00", "98", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RE", "320-44773-4", "TALSAC", "STL00998", "13C2
PFDaA", "80", "ng/L", "", "-99", "DL", "", "TRG", "82", "", "-99", "LOQ", "YES", "98.3", "", "254.2", "10.00", "98", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "1763-23-1", "Perfluorooctanesulfonic acid
(PFOS)", "1.9", "ng/L", "J B", "1.1", "DL", "", "TRG", "", "", "3.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "2.9", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "2058-94-8", "Perfluoroundecanoic acid
(PFUnA)", "1.5", "ng/L", "U", "0.70", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "1.5", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "2706-90-3", "Perfluoropentanoic acid
(PFPeA)", "280", "ng/L", "", "0.42", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "0.97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "307-24-4", "Perfluorohexanoic acid
(PFHxA)", "190", "ng/L", "", "0.46", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "0.97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "307-55-1", "Perfluorododecanoic acid
(PFDaA)", "1.5", "ng/L", "U Q", "0.51", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "1.5", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "335-67-1", "Perfluorooctanoic acid
(PFOA)", "11", "ng/L", "M", "0.53", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "1.5", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "335-76-2", "Perfluorodecanoic acid
(PFDA)", "0.97", "ng/L", "U", "0.47", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "0.97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "335-77-3", "Perfluorodecanesulfonic acid
(PFDS)", "1.5", "ng/L", "U", "0.55", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "1.5", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "355-46-4", "Perfluorohexanesulfonic acid
(PFHxS)", "0.92", "ng/L", "J", "0.37", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "0.97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "375-22-4", "Perfluorobutanoic acid
(PFBA)", "130", "ng/L", "", "0.57", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "1.5", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "375-73-5", "Perfluorobutanesulfonic acid
(PFBS)", "5.6", "ng/L", "", "0.45", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "0.97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "375-85-9", "Perfluoroheptanoic acid
(PFHpA)", "2.5", "ng/L", "", "0.59", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "1.5", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "375-92-8", "Perfluoroheptanesulfonic
Acid (PFHpS)", "0.97", "ng/L", "U", "0.36", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "0.97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "375-95-1", "Perfluorononanoic acid
(PFNA)", "1.5", "ng/L", "U", "0.51", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "1.5", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "376-06-7", "Perfluorotetradecanoic acid
(PFTeA)", "2.9", "ng/L", "U", "0.81", "DL", "", "TRG", "", "", "3.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "2.9", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "72629-94-8", "Perfluorotridecanoic acid
(PFTriA)", "2.9", "ng/L", "U", "0.74", "DL", "", "TRG", "", "", "3.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "2.9", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "754-91-6", "Perfluorooctanesulfonamide
(FOSA)", "2.9", "ng/L", "U M", "1.3", "DL", "", "TRG", "", "", "3.9", "LOQ", "YES", "-99", "", "256.7", "10.00", "2.9", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL00990", "13C4
PFOA", "88", "ng/L", "", "-99", "DL", "", "TRG", "90", "", "-99", "LOQ", "YES", "97.4", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL00991", "13C4
PFOS", "86", "ng/L", "", "-99", "DL", "", "TRG", "93", "", "-99", "LOQ", "YES", "93.1", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL00992", "13C4
PFBA", "80", "ng/L", "", "-99", "DL", "", "TRG", "82", "", "-99", "LOQ", "YES", "97.4", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL00993", "13C2

PFHxA", "81", "ng/L", "", "-99", "DL", "", "TRG", "83", "", "-99", "LOQ", "YES", "97.4", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL00994", "18O2
PFHxS", "79", "ng/L", "", "-99", "DL", "", "TRG", "86", "", "-99", "LOQ", "YES", "92.1", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL00995", "13C5
PFNA", "86", "ng/L", "", "-99", "DL", "", "TRG", "88", "", "-99", "LOQ", "YES", "97.4", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL00996", "13C2
PFDA", "86", "ng/L", "", "-99", "DL", "", "TRG", "88", "", "-99", "LOQ", "YES", "97.4", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL00997", "13C2
PFUnA", "90", "ng/L", "", "-99", "DL", "", "TRG", "92", "", "-99", "LOQ", "YES", "97.4", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL00998", "13C2
PFDaA", "81", "ng/L", "", "-99", "DL", "", "TRG", "84", "", "-99", "LOQ", "YES", "97.4", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL01056", "13C8
FOSA", "81", "ng/L", "", "-99", "DL", "", "TRG", "83", "", "-99", "LOQ", "YES", "97.4", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL01892", "13C4
PFHpA", "88", "ng/L", "", "-99", "DL", "", "TRG", "90", "", "-99", "LOQ", "YES", "97.4", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL01893", "13C5
PFPeA", "80", "ng/L", "", "-99", "DL", "", "TRG", "82", "", "-99", "LOQ", "YES", "97.4", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL02116", "13C2
PFTeDA", "73", "ng/L", "", "-99", "DL", "", "TRG", "75", "", "-99", "LOQ", "YES", "97.4", "", "256.7", "10.00", "97", ""
"TP-PFC-036-TPE-D", "EPA 537 (Mod)", "RES", "320-44773-4", "TALSAC", "STL02337", "13C3
PFBS", "72", "ng/L", "", "-99", "DL", "", "TRG", "80", "", "-99", "LOQ", "YES", "90.6", "", "256.7", "10.00", "97", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RE", "320-44773-5", "TALSAC", "307-55-
1", "Perfluorododecanoic acid (PFDaA)", "1.4", "ng/L", "U H
M", "0.49", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "265.9", "10.00", "1.4", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RE", "320-44773-5", "TALSAC", "STL00998", "13C2
PFDaA", "86", "ng/L", "", "-99", "DL", "", "TRG", "91", "", "-99", "LOQ", "YES", "94.0", "", "265.9", "10.00", "94", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid
(PFOS)", "48", "ng/L", "B", "1.1", "DL", "", "TRG", "", "", "3.9", "LOQ", "YES", "-99", "", "255.5", "10.00", "2.9", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "2058-94-
8", "Perfluoroundecanoic acid (PFUnA)", "1.5", "ng/L", "U
M", "0.70", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "1.5", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "2706-90-
3", "Perfluoropentanoic acid
(PFPeA)", "35", "ng/L", "", "0.42", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "0.98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "307-24-4", "Perfluorohexanoic
acid (PFHxA)", "63", "ng/L", "", "0.46", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "0.98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "307-55-
1", "Perfluorododecanoic acid (PFDaA)", "1.5", "ng/L", "U
Q", "0.51", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "1.5", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "335-67-1", "Perfluorooctanoic
acid (PFOA)", "220", "ng/L", "M", "0.53", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "1.5", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "335-76-2", "Perfluorodecanoic
acid (PFDA)", "0.98", "ng/L", "U", "0.47", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "0.98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "335-77-
3", "Perfluorodecanesulfonic acid
(PFDS)", "1.5", "ng/L", "U", "0.55", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "1.5", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "355-46-
4", "Perfluorohexanesulfonic acid
(PFHxS)", "120", "ng/L", "", "0.37", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "0.98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "375-22-4", "Perfluorobutanoic
acid (PFBA)", "12", "ng/L", "", "0.58", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "1.5", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "375-73-
5", "Perfluorobutanesulfonic acid

(PFBS)", "23", "ng/L", "", "0.45", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "0.98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "375-85-
9", "Perfluoroheptanoic acid
(PFHpA)", "13", "ng/L", "", "0.60", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "1.5", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "375-92-
8", "Perfluoroheptanesulfonic Acid
(PFHpS)", "1.7", "ng/L", "J", "0.36", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "0.98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "375-95-1", "Perfluorononanoic
acid (PFNA)", "0.55", "ng/L", "J", "0.51", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "255.5", "10.00", "1.5", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "376-06-
7", "Perfluorotetradecanoic acid
(PFTeA)", "2.9", "ng/L", "U", "0.81", "DL", "", "TRG", "", "", "3.9", "LOQ", "YES", "-99", "", "255.5", "10.00", "2.9", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "72629-94-
8", "Perfluorotridecanoic acid
(PFTriA)", "2.9", "ng/L", "U", "0.74", "DL", "", "TRG", "", "", "3.9", "LOQ", "YES", "-99", "", "255.5", "10.00", "2.9", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "754-91-
6", "Perfluorooctanesulfonamide
(FOSA)", "2.9", "ng/L", "U", "1.3", "DL", "", "TRG", "", "", "3.9", "LOQ", "YES", "-99", "", "255.5", "10.00", "2.9", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL00990", "13C4
PFOA", "83", "ng/L", "", "-99", "DL", "", "TRG", "85", "", "-99", "LOQ", "YES", "97.8", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL00991", "13C4
PFOS", "81", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "93.5", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL00992", "13C4
PFBA", "79", "ng/L", "", "-99", "DL", "", "TRG", "81", "", "-99", "LOQ", "YES", "97.8", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL00993", "13C2
PFHxA", "83", "ng/L", "", "-99", "DL", "", "TRG", "85", "", "-99", "LOQ", "YES", "97.8", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL00994", "18O2
PFHxS", "81", "ng/L", "", "-99", "DL", "", "TRG", "88", "", "-99", "LOQ", "YES", "92.6", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL00995", "13C5
PFNA", "87", "ng/L", "", "-99", "DL", "", "TRG", "89", "", "-99", "LOQ", "YES", "97.8", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL00996", "13C2
PFDA", "81", "ng/L", "", "-99", "DL", "", "TRG", "83", "", "-99", "LOQ", "YES", "97.8", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL00997", "13C2
PFUnA", "79", "ng/L", "", "-99", "DL", "", "TRG", "80", "", "-99", "LOQ", "YES", "97.8", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL00998", "13C2
PFDoA", "62", "ng/L", "", "-99", "DL", "", "TRG", "64", "", "-99", "LOQ", "YES", "97.8", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL01056", "13C8
FOSA", "78", "ng/L", "", "-99", "DL", "", "TRG", "80", "", "-99", "LOQ", "YES", "97.8", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL01892", "13C4
PFHpA", "82", "ng/L", "", "-99", "DL", "", "TRG", "84", "", "-99", "LOQ", "YES", "97.8", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL01893", "13C5
PFPeA", "82", "ng/L", "", "-99", "DL", "", "TRG", "84", "", "-99", "LOQ", "YES", "97.8", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL02116", "13C2
PFTeDA", "51", "ng/L", "", "-99", "DL", "", "TRG", "52", "", "-99", "LOQ", "YES", "97.8", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-08-103118", "EPA 537 (Mod)", "RES", "320-44773-5", "TALSAC", "STL02337", "13C3
PFBS", "76", "ng/L", "", "-99", "DL", "", "TRG", "84", "", "-99", "LOQ", "YES", "91.0", "", "255.5", "10.00", "98", ""
"NASB-GWETS-EW-01-103118", "EPA 537 (Mod)", "RE", "320-44773-6", "TALSAC", "307-55-
1", "Perfluorododecanoic acid (PFDoA)", "1.4", "ng/L", "U
H", "0.48", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "268.7", "10.00", "1.4", ""
"NASB-GWETS-EW-01-103118", "EPA 537 (Mod)", "RE", "320-44773-6", "TALSAC", "STL00998", "13C2
PFDoA", "81", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "93.0", "", "268.7", "10.00", "93", ""
"NASB-GWETS-EW-01-103118", "EPA 537 (Mod)", "RES", "320-44773-6", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid
(PFOS)", "100", "ng/L", "B", "1.0", "DL", "", "TRG", "", "", "3.7", "LOQ", "YES", "-99", "", "272.4", "10.00", "2.8", ""

"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","2058-94-8","Perfluoroundecanoic acid (PFUnA)","1.4","ng/L","U","0.66","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","1.4",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","2706-90-3","Perfluoropentanoic acid (PFPeA)","25","ng/L","M","0.39","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","0.92",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","307-24-4","Perfluorohexanoic acid (PFHxA)","47","ng/L","","0.43","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","0.92",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","307-55-1","Perfluorododecanoic acid (PFDoA)","1.4","ng/L","U M Q","0.48","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","1.4",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","335-67-1","Perfluorooctanoic acid (PFOA)","100","ng/L","M","0.50","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","1.4",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","335-76-2","Perfluorodecanoic acid (PFDA)","0.92","ng/L","U","0.44","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","0.92",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","335-77-3","Perfluorodecanesulfonic acid (PFDS)","1.4","ng/L","U","0.51","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","1.4",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","355-46-4","Perfluorohexanesulfonic acid (PFHxS)","180","ng/L","","0.35","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","0.92",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","375-22-4","Perfluorobutanoic acid (PFBA)","8.6","ng/L","","0.54","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","1.4",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","375-73-5","Perfluorobutanesulfonic acid (PFBS)","39","ng/L","","0.42","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","0.92",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","375-85-9","Perfluoroheptanoic acid (PFHpA)","10","ng/L","","0.56","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","1.4",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","375-92-8","Perfluoroheptanesulfonic Acid (PFHpS)","5.4","ng/L","","0.34","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","0.92",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","375-95-1","Perfluorononanoic acid (PFNA)","1.4","ng/L","U","0.48","DL","","TRG","","","1.8","LOQ","YES","-99","","272.4","10.00","1.4",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","376-06-7","Perfluorotetradecanoic acid (PFTeA)","2.8","ng/L","U","0.76","DL","","TRG","","","3.7","LOQ","YES","-99","","272.4","10.00","2.8",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","72629-94-8","Perfluorotridecanoic acid (PFTriA)","2.8","ng/L","U","0.70","DL","","TRG","","","3.7","LOQ","YES","-99","","272.4","10.00","2.8",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","754-91-6","Perfluorooctanesulfonamide (FOSA)","3.5","ng/L","J","1.2","DL","","TRG","","","3.7","LOQ","YES","-99","","272.4","10.00","2.8",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","STL00990","13C4 PFOA","83","ng/L","","-99","DL","","TRG","90","","-99","LOQ","YES","91.8","","272.4","10.00","92",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","STL00991","13C4 PFOS","82","ng/L","","-99","DL","","TRG","93","","-99","LOQ","YES","87.7","","272.4","10.00","92",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","STL00992","13C4 PFBA","78","ng/L","","-99","DL","","TRG","85","","-99","LOQ","YES","91.8","","272.4","10.00","92",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","STL00993","13C2 PFHxA","84","ng/L","","-99","DL","","TRG","92","","-99","LOQ","YES","91.8","","272.4","10.00","92",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","STL00994","18O2 PFHxS","78","ng/L","","-99","DL","","TRG","90","","-99","LOQ","YES","86.8","","272.4","10.00","92",""
"NASB-GWETS-EW-01-103118","EPA 537 (Mod)","RES","320-44773-6","TALSAC","STL00995","13C5

PFNA", "85", "ng/L", "", "-99", "DL", "", "TRG", "93", "", "-99", "LOQ", "YES", "91.8", "", "272.4", "10.00", "92", ""
"NASB-GWETS-EW-01-103118", "EPA 537 (Mod)", "RES", "320-44773-6", "TALSAC", "STL00996", "13C2
PFDA", "86", "ng/L", "", "-99", "DL", "", "TRG", "93", "", "-99", "LOQ", "YES", "91.8", "", "272.4", "10.00", "92", ""
"NASB-GWETS-EW-01-103118", "EPA 537 (Mod)", "RES", "320-44773-6", "TALSAC", "STL00997", "13C2
PFUnA", "92", "ng/L", "", "-99", "DL", "", "TRG", "100", "", "-99", "LOQ", "YES", "91.8", "", "272.4", "10.00", "92", ""
"NASB-GWETS-EW-01-103118", "EPA 537 (Mod)", "RES", "320-44773-6", "TALSAC", "STL00998", "13C2
PFDaA", "79", "ng/L", "", "-99", "DL", "", "TRG", "86", "", "-99", "LOQ", "YES", "91.8", "", "272.4", "10.00", "92", ""
"NASB-GWETS-EW-01-103118", "EPA 537 (Mod)", "RES", "320-44773-6", "TALSAC", "STL01056", "13C8
FOA", "82", "ng/L", "", "-99", "DL", "", "TRG", "89", "", "-99", "LOQ", "YES", "91.8", "", "272.4", "10.00", "92", ""
"NASB-GWETS-EW-01-103118", "EPA 537 (Mod)", "RES", "320-44773-6", "TALSAC", "STL01892", "13C4
PFHpA", "78", "ng/L", "", "-99", "DL", "", "TRG", "85", "", "-99", "LOQ", "YES", "91.8", "", "272.4", "10.00", "92", ""
"NASB-GWETS-EW-01-103118", "EPA 537 (Mod)", "RES", "320-44773-6", "TALSAC", "STL01893", "13C5
PFPeA", "78", "ng/L", "", "-99", "DL", "", "TRG", "85", "", "-99", "LOQ", "YES", "91.8", "", "272.4", "10.00", "92", ""
"NASB-GWETS-EW-01-103118", "EPA 537 (Mod)", "RES", "320-44773-6", "TALSAC", "STL02116", "13C2
PFTeDA", "71", "ng/L", "", "-99", "DL", "", "TRG", "78", "", "-99", "LOQ", "YES", "91.8", "", "272.4", "10.00", "92", ""
"NASB-GWETS-EW-01-103118", "EPA 537 (Mod)", "RES", "320-44773-6", "TALSAC", "STL02337", "13C3
PFBS", "72", "ng/L", "", "-99", "DL", "", "TRG", "84", "", "-99", "LOQ", "YES", "85.4", "", "272.4", "10.00", "92", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid (PFOS)", "570", "ng/L", "D
B", "5.1", "DL", "", "TRG", "", "", "19", "LOQ", "YES", "-99", "", "267.5", "10.00", "14", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "2058-94-
8", "Perfluoroundecanoic acid
(PFUnA)", "7.0", "ng/L", "U", "3.4", "DL", "", "TRG", "", "", "9.3", "LOQ", "NO", "-99", "", "267.5", "10.00", "7.0", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "2706-90-
3", "Perfluoropentanoic acid
(PFPeA)", "210", "ng/L", "D", "2.0", "DL", "", "TRG", "", "", "9.3", "LOQ", "NO", "-99", "", "267.5", "10.00", "4.7", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "307-24-4", "Perfluorohexanoic
acid (PFHxA)", "340", "ng/L", "D", "2.2", "DL", "", "TRG", "", "", "9.3", "LOQ", "NO", "-99", "", "267.5", "10.00", "4.7", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "307-55-
1", "Perfluorododecanoic acid (PFDaA)", "7.0", "ng/L", "U
Q", "2.4", "DL", "", "TRG", "", "", "9.3", "LOQ", "NO", "-99", "", "267.5", "10.00", "7.0", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "335-67-1", "Perfluorooctanoic
acid (PFOA)", "1000", "ng/L", "D M", "2.5", "DL", "", "TRG", "", "", "9.3", "LOQ", "YES", "-99", "", "267.5", "10.00", "7.0", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "335-76-2", "Perfluorodecanoic
acid (PFDA)", "4.7", "ng/L", "U", "2.2", "DL", "", "TRG", "", "", "9.3", "LOQ", "NO", "-99", "", "267.5", "10.00", "4.7", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "335-77-
3", "Perfluorodecanesulfonic acid
(PFDS)", "7.0", "ng/L", "U", "2.6", "DL", "", "TRG", "", "", "9.3", "LOQ", "NO", "-99", "", "267.5", "10.00", "7.0", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "355-46-
4", "Perfluorohexanesulfonic acid
(PFHxS)", "330", "ng/L", "D", "1.8", "DL", "", "TRG", "", "", "9.3", "LOQ", "NO", "-99", "", "267.5", "10.00", "4.7", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "375-22-4", "Perfluorobutanoic
acid (PFBA)", "77", "ng/L", "D", "2.8", "DL", "", "TRG", "", "", "9.3", "LOQ", "NO", "-99", "", "267.5", "10.00", "7.0", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "375-73-
5", "Perfluorobutanesulfonic acid
(PFBS)", "42", "ng/L", "D", "2.1", "DL", "", "TRG", "", "", "9.3", "LOQ", "NO", "-99", "", "267.5", "10.00", "4.7", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "375-85-9", "Perfluoroheptanoic
acid (PFHpA)", "52", "ng/L", "D", "2.9", "DL", "", "TRG", "", "", "9.3", "LOQ", "NO", "-99", "", "267.5", "10.00", "7.0", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "375-92-
8", "Perfluoroheptanesulfonic Acid (PFHpS)", "9.2", "ng/L", "J
D", "1.7", "DL", "", "TRG", "", "", "9.3", "LOQ", "NO", "-99", "", "267.5", "10.00", "4.7", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "375-95-1", "Perfluorononanoic
acid (PFNA)", "3.1", "ng/L", "J D", "2.4", "DL", "", "TRG", "", "", "9.3", "LOQ", "NO", "-99", "", "267.5", "10.00", "7.0", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "376-06-

7", "Perfluorotetradecanoic acid (PFTeA)", "14", "ng/L", "U", "3.9", "DL", "", "TRG", "", "", "19", "LOQ", "NO", "-99", "", "267.5", "10.00", "14", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "72629-94-8", "Perfluorotridecanoic acid (PFTriA)", "14", "ng/L", "U", "3.6", "DL", "", "TRG", "", "", "19", "LOQ", "NO", "-99", "", "267.5", "10.00", "14", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "754-91-6", "Perfluorooctanesulfonamide (FOSA)", "14", "ng/L", "U", "6.1", "DL", "", "TRG", "", "", "19", "LOQ", "NO", "-99", "", "267.5", "10.00", "14", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL00990", "13C4 PFOA", "82", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL00991", "13C4 PFOS", "78", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "89.3", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL00992", "13C4 PFBA", "84", "ng/L", "", "-99", "DL", "", "TRG", "89", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL00993", "13C2 PFHxA", "81", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL00994", "18O2 PFHxS", "73", "ng/L", "", "-99", "DL", "", "TRG", "82", "", "-99", "LOQ", "YES", "88.4", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL00995", "13C5 PFNA", "80", "ng/L", "", "-99", "DL", "", "TRG", "86", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL00996", "13C2 PFDA", "76", "ng/L", "", "-99", "DL", "", "TRG", "82", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL00997", "13C2 PFUnA", "82", "ng/L", "", "-99", "DL", "", "TRG", "88", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL00998", "13C2 PFDaA", "76", "ng/L", "", "-99", "DL", "", "TRG", "81", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL01056", "13C8 FOSA", "71", "ng/L", "", "-99", "DL", "", "TRG", "76", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL01892", "13C4 PFHpA", "81", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL01893", "13C5 PFPeA", "79", "ng/L", "", "-99", "DL", "", "TRG", "85", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL02116", "13C2 PFTeDA", "64", "ng/L", "", "-99", "DL", "", "TRG", "69", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "DL", "320-44773-7", "TALSAC", "STL02337", "13C3 PFBS", "69", "ng/L", "", "-99", "DL", "", "TRG", "79", "", "-99", "LOQ", "YES", "86.9", "", "267.5", "10.00", "470", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RE", "320-44773-7", "TALSAC", "307-55-1", "Perfluorododecanoic acid (PFDaA)", "1.4", "ng/L", "U H M", "0.49", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "265.5", "10.00", "1.4", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RE", "320-44773-7", "TALSAC", "STL00998", "13C2 PFDaA", "84", "ng/L", "", "-99", "DL", "", "TRG", "90", "", "-99", "LOQ", "YES", "94.2", "", "265.5", "10.00", "94", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "1763-23-1", "Perfluorooctanesulfonic acid (PFOS)", "560", "ng/L", "E B", "1.0", "DL", "", "TRG", "", "", "3.7", "LOQ", "NO", "-99", "", "267.5", "10.00", "2.8", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "2058-94-8", "Perfluoroundecanoic acid (PFUnA)", "1.4", "ng/L", "U M", "0.67", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267.5", "10.00", "1.4", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "2706-90-3", "Perfluoropentanoic acid (PFPeA)", "220", "ng/L", "", "0.40", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267.5", "10.00", "0.93", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "307-24-4", "Perfluorohexanoic acid (PFHxA)", "330", "ng/L", "", "0.44", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267.5", "10.00", "0.93", "" "NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "307-55-1", "Perfluorododecanoic acid (PFDaA)", "1.4", "ng/L", "U

Q", "0.49", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267.5", "10.00", "1.4", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "335-67-1", "Perfluorooctanoic acid (PFOA)", "880", "ng/L", "E M", "0.50", "DL", "", "TRG", "", "", "1.9", "LOQ", "NO", "-99", "", "267.5", "10.00", "1.4", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "335-76-2", "Perfluorodecanoic acid (PFDA)", "1.6", "ng/L", "J", "0.45", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267.5", "10.00", "0.93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "335-77-3", "Perfluorodecanesulfonic acid (PFDS)", "1.4", "ng/L", "U", "0.52", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267.5", "10.00", "1.4", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "355-46-4", "Perfluorohexanesulfonic acid (PFHxS)", "300", "ng/L", "", "0.36", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267.5", "10.00", "0.93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "375-22-4", "Perfluorobutanoic acid (PFBA)", "77", "ng/L", "", "0.55", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267.5", "10.00", "1.4", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "375-73-5", "Perfluorobutanesulfonic acid (PFBS)", "40", "ng/L", "", "0.43", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267.5", "10.00", "0.93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "375-85-9", "Perfluoroheptanoic acid (PFHpA)", "49", "ng/L", "", "0.57", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267.5", "10.00", "1.4", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "375-92-8", "Perfluoroheptanesulfonic Acid (PFHpS)", "8.5", "ng/L", "", "0.35", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267.5", "10.00", "0.93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "375-95-1", "Perfluorononanoic acid (PFNA)", "3.1", "ng/L", "", "0.49", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "267.5", "10.00", "1.4", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "376-06-7", "Perfluorotetradecanoic acid (PFTeA)", "2.8", "ng/L", "U", "0.78", "DL", "", "TRG", "", "", "3.7", "LOQ", "YES", "-99", "", "267.5", "10.00", "2.8", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "72629-94-8", "Perfluorotridecanoic acid (PFTriA)", "2.8", "ng/L", "U", "0.71", "DL", "", "TRG", "", "", "3.7", "LOQ", "YES", "-99", "", "267.5", "10.00", "2.8", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "754-91-6", "Perfluorooctanesulfonamide (FOSA)", "1.5", "ng/L", "J", "1.2", "DL", "", "TRG", "", "", "3.7", "LOQ", "YES", "-99", "", "267.5", "10.00", "2.8", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL00990", "13C4 PFOA", "79", "ng/L", "", "-99", "DL", "", "TRG", "84", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL00991", "13C4 PFOS", "84", "ng/L", "", "-99", "DL", "", "TRG", "94", "", "-99", "LOQ", "YES", "89.3", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL00992", "13C4 PFBA", "79", "ng/L", "", "-99", "DL", "", "TRG", "84", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL00993", "13C2 PFHxA", "87", "ng/L", "", "-99", "DL", "", "TRG", "93", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL00994", "18O2 PFHxS", "80", "ng/L", "", "-99", "DL", "", "TRG", "90", "", "-99", "LOQ", "YES", "88.4", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL00995", "13C5 PFNA", "84", "ng/L", "", "-99", "DL", "", "TRG", "90", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL00996", "13C2 PFDA", "86", "ng/L", "", "-99", "DL", "", "TRG", "92", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL00997", "13C2 PFUnA", "93", "ng/L", "", "-99", "DL", "", "TRG", "99", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL00998", "13C2 PFDoA", "81", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL01056", "13C8 FOSA", "83", "ng/L", "", "-99", "DL", "", "TRG", "89", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL01892", "13C4

PFHpA", "86", "ng/L", "", "-99", "DL", "", "TRG", "92", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL01893", "13C5
PFPeA", "80", "ng/L", "", "-99", "DL", "", "TRG", "86", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL02116", "13C2
PFTeDA", "66", "ng/L", "", "-99", "DL", "", "TRG", "71", "", "-99", "LOQ", "YES", "93.5", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-09-103118", "EPA 537 (Mod)", "RES", "320-44773-7", "TALSAC", "STL02337", "13C3
PFBS", "78", "ng/L", "", "-99", "DL", "", "TRG", "90", "", "-99", "LOQ", "YES", "86.9", "", "267.5", "10.00", "93", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid (PFOS)", "340", "ng/L", "D
B", "2.3", "DL", "", "TRG", "", "", "8.4", "LOQ", "NO", "-99", "", "239.3", "10.00", "6.3", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "2058-94-
8", "Perfluoroundecanoic acid
(PFUnA)", "3.1", "ng/L", "U", "1.5", "DL", "", "TRG", "", "", "4.2", "LOQ", "NO", "-99", "", "239.3", "10.00", "3.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "2706-90-
3", "Perfluoropentanoic acid
(PFPeA)", "100", "ng/L", "D", "0.90", "DL", "", "TRG", "", "", "4.2", "LOQ", "NO", "-99", "", "239.3", "10.00", "2.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "307-24-4", "Perfluorohexanoic
acid (PFHxA)", "170", "ng/L", "D", "0.98", "DL", "", "TRG", "", "", "4.2", "LOQ", "NO", "-99", "", "239.3", "10.00", "2.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "307-55-
1", "Perfluorododecanoic acid (PFDoA)", "3.1", "ng/L", "U
Q", "1.1", "DL", "", "TRG", "", "", "4.2", "LOQ", "NO", "-99", "", "239.3", "10.00", "3.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "335-67-1", "Perfluorooctanoic
acid (PFOA)", "630", "ng/L", "D M", "1.1", "DL", "", "TRG", "", "", "4.2", "LOQ", "YES", "-99", "", "239.3", "10.00", "3.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "335-76-2", "Perfluorodecanoic
acid (PFDA)", "2.1", "ng/L", "U", "1.0", "DL", "", "TRG", "", "", "4.2", "LOQ", "NO", "-99", "", "239.3", "10.00", "2.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "335-77-
3", "Perfluorodecanesulfonic acid
(PFDS)", "3.1", "ng/L", "U", "1.2", "DL", "", "TRG", "", "", "4.2", "LOQ", "NO", "-99", "", "239.3", "10.00", "3.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "355-46-
4", "Perfluorohexanesulfonic acid
(PFHxS)", "240", "ng/L", "D", "0.79", "DL", "", "TRG", "", "", "4.2", "LOQ", "NO", "-99", "", "239.3", "10.00", "2.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "375-22-4", "Perfluorobutanoic
acid (PFBA)", "36", "ng/L", "D", "1.2", "DL", "", "TRG", "", "", "4.2", "LOQ", "NO", "-99", "", "239.3", "10.00", "3.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "375-73-
5", "Perfluorobutanesulfonic acid
(PFBS)", "21", "ng/L", "D", "0.96", "DL", "", "TRG", "", "", "4.2", "LOQ", "NO", "-99", "", "239.3", "10.00", "2.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "375-85-9", "Perfluoroheptanoic
acid (PFHpA)", "27", "ng/L", "D", "1.3", "DL", "", "TRG", "", "", "4.2", "LOQ", "NO", "-99", "", "239.3", "10.00", "3.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "375-92-
8", "Perfluoroheptanesulfonic Acid
(PFHpS)", "4.9", "ng/L", "D", "0.77", "DL", "", "TRG", "", "", "4.2", "LOQ", "NO", "-99", "", "239.3", "10.00", "2.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "375-95-1", "Perfluorononanoic
acid (PFNA)", "2.5", "ng/L", "J D", "1.1", "DL", "", "TRG", "", "", "4.2", "LOQ", "NO", "-99", "", "239.3", "10.00", "3.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "376-06-
7", "Perfluorotetradecanoic acid
(PFTeA)", "6.3", "ng/L", "U", "1.7", "DL", "", "TRG", "", "", "8.4", "LOQ", "NO", "-99", "", "239.3", "10.00", "6.3", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "72629-94-
8", "Perfluorotridecanoic acid
(PFTriA)", "6.3", "ng/L", "U", "1.6", "DL", "", "TRG", "", "", "8.4", "LOQ", "NO", "-99", "", "239.3", "10.00", "6.3", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "754-91-
6", "Perfluorooctanesulfonamide
(FOSA)", "6.3", "ng/L", "U", "2.7", "DL", "", "TRG", "", "", "8.4", "LOQ", "NO", "-99", "", "239.3", "10.00", "6.3", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "DL", "320-44773-8", "TALSAC", "STL00990", "13C4
PFOA", "100", "ng/L", "", "-99", "DL", "", "TRG", "96", "", "-99", "LOQ", "YES", "104", "", "239.3", "10.00", "210", ""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL00991","13C4 PFOS","95","ng/L","",-99","DL","","TRG","95","",-99","LOQ","YES","99.9","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL00992","13C4 PFBA","100","ng/L","",-99","DL","","TRG","98","",-99","LOQ","YES","104","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL00993","13C2 PFHxA","100","ng/L","",-99","DL","","TRG","96","",-99","LOQ","YES","104","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL00994","18O2 PFHxS","98","ng/L","",-99","DL","","TRG","99","",-99","LOQ","YES","98.8","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL00995","13C5 PFNA","98","ng/L","",-99","DL","","TRG","94","",-99","LOQ","YES","104","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL00996","13C2 PFDA","96","ng/L","",-99","DL","","TRG","92","",-99","LOQ","YES","104","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL00997","13C2 PFUnA","97","ng/L","",-99","DL","","TRG","93","",-99","LOQ","YES","104","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL00998","13C2 PFDoA","91","ng/L","",-99","DL","","TRG","87","",-99","LOQ","YES","104","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL01056","13C8 FOSA","92","ng/L","",-99","DL","","TRG","88","",-99","LOQ","YES","104","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL01892","13C4 PFHpA","100","ng/L","",-99","DL","","TRG","95","",-99","LOQ","YES","104","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL01893","13C5 PFPeA","97","ng/L","",-99","DL","","TRG","92","",-99","LOQ","YES","104","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL02116","13C2 PFTeDA","89","ng/L","",-99","DL","","TRG","85","",-99","LOQ","YES","104","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","DL","320-44773-8","TALSAC","STL02337","13C3 PFBS","87","ng/L","",-99","DL","","TRG","89","",-99","LOQ","YES","97.2","","239.3","10.00","210",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","RE","320-44773-8","TALSAC","307-55-1","Perfluorododecanoic acid (PFDoA)","1.4","ng/L","U
H","0.50","DL","","TRG","","","1.9","LOQ","NO","-99","","261.1","10.00","1.4",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","RE","320-44773-8","TALSAC","STL00998","13C2 PFDoA","78","ng/L","",-99","DL","","TRG","82","",-99","LOQ","YES","95.7","","261.1","10.00","96",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","RES","320-44773-8","TALSAC","1763-23-1","Perfluorooctanesulfonic acid (PFOS)","330","ng/L","B","1.1","DL","","TRG","","","4.2","LOQ","YES","-99","","239.3","10.00","3.1",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","RES","320-44773-8","TALSAC","2058-94-8","Perfluoroundecanoic acid (PFUnA)","1.6","ng/L","U","0.75","DL","","TRG","","","2.1","LOQ","YES","-99","","239.3","10.00","1.6",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","RES","320-44773-8","TALSAC","2706-90-3","Perfluoropentanoic acid (PFPeA)","100","ng/L","","0.45","DL","","TRG","","","2.1","LOQ","YES","-99","","239.3","10.00","1.0",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","RES","320-44773-8","TALSAC","307-24-4","Perfluorohexanoic acid (PFHxA)","160","ng/L","","0.49","DL","","TRG","","","2.1","LOQ","YES","-99","","239.3","10.00","1.0",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","RES","320-44773-8","TALSAC","307-55-1","Perfluorododecanoic acid (PFDoA)","1.6","ng/L","U
Q","0.54","DL","","TRG","","","2.1","LOQ","YES","-99","","239.3","10.00","1.6",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","RES","320-44773-8","TALSAC","335-67-1","Perfluorooctanoic acid (PFOA)","630","ng/L","E M","0.56","DL","","TRG","","","2.1","LOQ","NO","-99","","239.3","10.00","1.6",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","RES","320-44773-8","TALSAC","335-76-2","Perfluorodecanoic acid (PFDA)","0.74","ng/L","J","0.50","DL","","TRG","","","2.1","LOQ","YES","-99","","239.3","10.00","1.0",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","RES","320-44773-8","TALSAC","335-77-3","Perfluorodecanesulfonic acid (PFDS)","1.6","ng/L","U","0.59","DL","","TRG","","","2.1","LOQ","YES","-99","","239.3","10.00","1.6",""

"NASB-GWETS-EW-02-103118","EPA 537 (Mod)","RES","320-44773-8","TALSAC","355-46-4","Perfluorohexanesulfonic acid

(PFHxS)", "230", "ng/L", "", "0.40", "DL", "", "TRG", "", "", "2.1", "LOQ", "YES", "-99", "", "239.3", "10.00", "1.0", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "375-22-4", "Perfluorobutanoic
acid (PFBA)", "35", "ng/L", "", "0.62", "DL", "", "TRG", "", "", "2.1", "LOQ", "YES", "-99", "", "239.3", "10.00", "1.6", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "375-73-
5", "Perfluorobutanesulfonic acid
(PFBS)", "23", "ng/L", "", "0.48", "DL", "", "TRG", "", "", "2.1", "LOQ", "YES", "-99", "", "239.3", "10.00", "1.0", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "375-85-
9", "Perfluoroheptanoic acid
(PFHpA)", "32", "ng/L", "", "0.64", "DL", "", "TRG", "", "", "2.1", "LOQ", "YES", "-99", "", "239.3", "10.00", "1.6", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "375-92-
8", "Perfluoroheptanesulfonic Acid
(PFHpS)", "4.7", "ng/L", "", "0.39", "DL", "", "TRG", "", "", "2.1", "LOQ", "YES", "-99", "", "239.3", "10.00", "1.0", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "375-95-1", "Perfluorononanoic
acid (PFNA)", "2.2", "ng/L", "", "0.54", "DL", "", "TRG", "", "", "2.1", "LOQ", "YES", "-99", "", "239.3", "10.00", "1.6", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "376-06-
7", "Perfluorotetradecanoic acid
(PFTeA)", "3.1", "ng/L", "U", "0.87", "DL", "", "TRG", "", "", "4.2", "LOQ", "YES", "-99", "", "239.3", "10.00", "3.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "72629-94-
8", "Perfluorotridecanoic acid
(PFTriA)", "3.1", "ng/L", "U", "0.79", "DL", "", "TRG", "", "", "4.2", "LOQ", "YES", "-99", "", "239.3", "10.00", "3.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "754-91-
6", "Perfluorooctanesulfonamide (FOSA)", "3.1", "ng/L", "U
M", "1.4", "DL", "", "TRG", "", "", "4.2", "LOQ", "YES", "-99", "", "239.3", "10.00", "3.1", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL00990", "13C4
PFOA", "92", "ng/L", "", "-99", "DL", "", "TRG", "88", "", "-99", "LOQ", "YES", "104", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL00991", "13C4
PFOS", "98", "ng/L", "", "-99", "DL", "", "TRG", "98", "", "-99", "LOQ", "YES", "99.9", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL00992", "13C4
PFBA", "91", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "104", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL00993", "13C2
PFHxA", "100", "ng/L", "", "-99", "DL", "", "TRG", "99", "", "-99", "LOQ", "YES", "104", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL00994", "18O2
PFHxS", "93", "ng/L", "", "-99", "DL", "", "TRG", "94", "", "-99", "LOQ", "YES", "98.8", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL00995", "13C5
PFNA", "100", "ng/L", "", "-99", "DL", "", "TRG", "99", "", "-99", "LOQ", "YES", "104", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL00996", "13C2
PFDA", "99", "ng/L", "", "-99", "DL", "", "TRG", "95", "", "-99", "LOQ", "YES", "104", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL00997", "13C2
PFUnA", "110", "ng/L", "", "-99", "DL", "", "TRG", "105", "", "-99", "LOQ", "YES", "104", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL00998", "13C2
PFDaA", "100", "ng/L", "", "-99", "DL", "", "TRG", "100", "", "-99", "LOQ", "YES", "104", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL01056", "13C8
FOSA", "97", "ng/L", "", "-99", "DL", "", "TRG", "93", "", "-99", "LOQ", "YES", "104", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL01892", "13C4
PFHpA", "95", "ng/L", "", "-99", "DL", "", "TRG", "91", "", "-99", "LOQ", "YES", "104", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL01893", "13C5
PFPeA", "98", "ng/L", "", "-99", "DL", "", "TRG", "94", "", "-99", "LOQ", "YES", "104", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL02116", "13C2
PFTeDA", "91", "ng/L", "", "-99", "DL", "", "TRG", "87", "", "-99", "LOQ", "YES", "104", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-02-103118", "EPA 537 (Mod)", "RES", "320-44773-8", "TALSAC", "STL02337", "13C3
PFBS", "86", "ng/L", "", "-99", "DL", "", "TRG", "88", "", "-99", "LOQ", "YES", "97.2", "", "239.3", "10.00", "100", ""
"NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "DL", "320-44773-9", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid (PFOS)", "290", "ng/L", "D
B", "11", "DL", "", "TRG", "", "", "38", "LOQ", "NO", "-99", "", "260.3", "10.00", "29", ""

"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","2058-94-8","Perfluoroundecanoic acid (PFUnA)","14","ng/L","U","6.9","DL","","TRG","","","19","LOQ","NO","-99","","260.3","10.00","14",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","2706-90-3","Perfluoropentanoic acid (PFPeA)","220","ng/L","D","4.1","DL","","TRG","","","19","LOQ","NO","-99","","260.3","10.00","9.6",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","307-24-4","Perfluorohexanoic acid (PFHxA)","360","ng/L","D","4.5","DL","","TRG","","","19","LOQ","NO","-99","","260.3","10.00","9.6",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","307-55-1","Perfluorododecanoic acid (PFDoA)","14","ng/L","U Q","5.0","DL","","TRG","","","19","LOQ","NO","-99","","260.3","10.00","14",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","335-67-1","Perfluorooctanoic acid (PFOA)","1500","ng/L","D M","5.2","DL","","TRG","","","19","LOQ","YES","-99","","260.3","10.00","14",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","335-76-2","Perfluorodecanoic acid (PFDA)","9.6","ng/L","U","4.6","DL","","TRG","","","19","LOQ","NO","-99","","260.3","10.00","9.6",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","335-77-3","Perfluorodecanesulfonic acid (PFDS)","14","ng/L","U","5.4","DL","","TRG","","","19","LOQ","NO","-99","","260.3","10.00","14",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","355-46-4","Perfluorohexanesulfonic acid (PFHxS)","330","ng/L","D","3.6","DL","","TRG","","","19","LOQ","NO","-99","","260.3","10.00","9.6",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","375-22-4","Perfluorobutanoic acid (PFBA)","76","ng/L","D","5.7","DL","","TRG","","","19","LOQ","NO","-99","","260.3","10.00","14",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","375-73-5","Perfluorobutanesulfonic acid (PFBS)","45","ng/L","D","4.4","DL","","TRG","","","19","LOQ","NO","-99","","260.3","10.00","9.6",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","375-85-9","Perfluoroheptanoic acid (PFHpA)","59","ng/L","D","5.9","DL","","TRG","","","19","LOQ","NO","-99","","260.3","10.00","14",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","375-92-8","Perfluoroheptanesulfonic Acid (PFHpS)","7.0","ng/L","J D","3.6","DL","","TRG","","","19","LOQ","NO","-99","","260.3","10.00","9.6",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","375-95-1","Perfluorononanoic acid (PFNA)","14","ng/L","U","5.0","DL","","TRG","","","19","LOQ","NO","-99","","260.3","10.00","14",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","376-06-7","Perfluorotetradecanoic acid (PFTeA)","29","ng/L","U","8.0","DL","","TRG","","","38","LOQ","NO","-99","","260.3","10.00","29",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","72629-94-8","Perfluorotridecanoic acid (PFTriA)","29","ng/L","U","7.3","DL","","TRG","","","38","LOQ","NO","-99","","260.3","10.00","29",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","754-91-6","Perfluorooctanesulfonamide (FOA)","29","ng/L","U","12","DL","","TRG","","","38","LOQ","NO","-99","","260.3","10.00","29",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL00990","13C4 PFOA","84","ng/L","","-99","DL","","TRG","88","","-99","LOQ","YES","96.0","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL00991","13C4 PFOS","80","ng/L","","-99","DL","","TRG","87","","-99","LOQ","YES","91.8","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL00992","13C4 PFBA","93","ng/L","","-99","DL","","TRG","97","","-99","LOQ","YES","96.0","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL00993","13C2 PFHxA","90","ng/L","","-99","DL","","TRG","94","","-99","LOQ","YES","96.0","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL00994","18O2 PFHxS","81","ng/L","","-99","DL","","TRG","89","","-99","LOQ","YES","90.9","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL00995","13C5 PFNA","87","ng/L","","-99","DL","","TRG","91","","-99","LOQ","YES","96.0","","260.3","10.00","960",""

"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL00996","13C2
PFDA","77","ng/L","",-99","DL","","TRG","80","",-99","LOQ","YES","96.0","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL00997","13C2
PFUnA","83","ng/L","",-99","DL","","TRG","87","",-99","LOQ","YES","96.0","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL00998","13C2
PFDaA","81","ng/L","",-99","DL","","TRG","84","",-99","LOQ","YES","96.0","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL01056","13C8
FOSA","74","ng/L","",-99","DL","","TRG","77","",-99","LOQ","YES","96.0","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL01892","13C4
PFHpA","85","ng/L","",-99","DL","","TRG","88","",-99","LOQ","YES","96.0","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL01893","13C5
PFPeA","83","ng/L","",-99","DL","","TRG","86","",-99","LOQ","YES","96.0","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL02116","13C2
PFTeDA","79","ng/L","",-99","DL","","TRG","83","",-99","LOQ","YES","96.0","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","DL","320-44773-9","TALSAC","STL02337","13C3
PFBS","78","ng/L","",-99","DL","","TRG","87","",-99","LOQ","YES","89.3","","260.3","10.00","960",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RE","320-44773-9","TALSAC","307-55-
1","Perfluorododecanoic acid (PFDaA)","1.5","ng/L","U
H","0.53","DL","","TRG","","","2.0","LOQ","NO","-99","","245.5","10.00","1.5",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RE","320-44773-9","TALSAC","STL00998","13C2
PFDaA","99","ng/L","",-99","DL","","TRG","97","",-99","LOQ","YES","102","","245.5","10.00","100",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","1763-23-
1","Perfluorooctanesulfonic acid
(PFOS)","280","ng/L","B","1.1","DL","","TRG","","","3.8","LOQ","YES","-99","","260.3","10.00","2.9",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","2058-94-
8","Perfluoroundecanoic acid
(PFUnA)","1.4","ng/L","U","0.69","DL","","TRG","","","1.9","LOQ","YES","-99","","260.3","10.00","1.4",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","2706-90-
3","Perfluoropentanoic acid
(PFPeA)","210","ng/L","","0.41","DL","","TRG","","","1.9","LOQ","YES","-99","","260.3","10.00","0.96",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","307-24-4","Perfluorohexanoic
acid (PFHxA)","350","ng/L","","0.45","DL","","TRG","","","1.9","LOQ","YES","-99","","260.3","10.00","0.96",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","307-55-
1","Perfluorododecanoic acid (PFDaA)","1.4","ng/L","U
Q","0.50","DL","","TRG","","","1.9","LOQ","YES","-99","","260.3","10.00","1.4",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","335-67-1","Perfluorooctanoic
acid (PFOA)","1100","ng/L","E M","0.52","DL","","TRG","","","1.9","LOQ","NO","-99","","260.3","10.00","1.4",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","335-76-2","Perfluorodecanoic
acid (PFDA)","0.90","ng/L","J","0.46","DL","","TRG","","","1.9","LOQ","YES","-99","","260.3","10.00","0.96",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","335-77-
3","Perfluorodecanesulfonic acid
(PFDS)","1.4","ng/L","U","0.54","DL","","TRG","","","1.9","LOQ","YES","-99","","260.3","10.00","1.4",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","355-46-
4","Perfluorohexanesulfonic acid
(PFHxS)","310","ng/L","","0.36","DL","","TRG","","","1.9","LOQ","YES","-99","","260.3","10.00","0.96",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","375-22-4","Perfluorobutanoic
acid (PFBA)","76","ng/L","","0.57","DL","","TRG","","","1.9","LOQ","YES","-99","","260.3","10.00","1.4",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","375-73-
5","Perfluorobutanesulfonic acid
(PFBS)","45","ng/L","","0.44","DL","","TRG","","","1.9","LOQ","YES","-99","","260.3","10.00","0.96",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","375-85-
9","Perfluoroheptanoic acid
(PFHpA)","62","ng/L","","0.59","DL","","TRG","","","1.9","LOQ","YES","-99","","260.3","10.00","1.4",""
"NASB-GWETS-EW-04-103118","EPA 537 (Mod)","RES","320-44773-9","TALSAC","375-92-

8", "Perfluoroheptanesulfonic Acid (PFHpS)", "5.4", "ng/L", "", "0.36", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "260.3", "10.00", "0.96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "375-95-1", "Perfluorononanoic acid (PFNA)", "2.9", "ng/L", "", "0.50", "DL", "", "TRG", "", "", "1.9", "LOQ", "YES", "-99", "", "260.3", "10.00", "1.4", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "376-06-7", "Perfluorotetradecanoic acid (PFTeA)", "2.9", "ng/L", "U", "0.80", "DL", "", "TRG", "", "", "3.8", "LOQ", "YES", "-99", "", "260.3", "10.00", "2.9", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "72629-94-8", "Perfluorotridecanoic acid (PFTriA)", "2.9", "ng/L", "U", "0.73", "DL", "", "TRG", "", "", "3.8", "LOQ", "YES", "-99", "", "260.3", "10.00", "2.9", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "754-91-6", "Perfluorooctanesulfonamide (FOSA)", "2.9", "ng/L", "U", "1.2", "DL", "", "TRG", "", "", "3.8", "LOQ", "YES", "-99", "", "260.3", "10.00", "2.9", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL00990", "13C4 PFOA", "88", "ng/L", "", "-99", "DL", "", "TRG", "91", "", "-99", "LOQ", "YES", "96.0", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL00991", "13C4 PFOS", "100", "ng/L", "", "-99", "DL", "", "TRG", "109", "", "-99", "LOQ", "YES", "91.8", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL00992", "13C4 PFBA", "95", "ng/L", "", "-99", "DL", "", "TRG", "99", "", "-99", "LOQ", "YES", "96.0", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL00993", "13C2 PFHxA", "100", "ng/L", "", "-99", "DL", "", "TRG", "105", "", "-99", "LOQ", "YES", "96.0", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL00994", "18O2 PFHxS", "90", "ng/L", "", "-99", "DL", "", "TRG", "99", "", "-99", "LOQ", "YES", "90.9", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL00995", "13C5 PFNA", "100", "ng/L", "", "-99", "DL", "", "TRG", "104", "", "-99", "LOQ", "YES", "96.0", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL00996", "13C2 PFDA", "100", "ng/L", "", "-99", "DL", "", "TRG", "105", "", "-99", "LOQ", "YES", "96.0", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL00997", "13C2 PFUnA", "110", "ng/L", "", "-99", "DL", "", "TRG", "113", "", "-99", "LOQ", "YES", "96.0", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL00998", "13C2 PFDoA", "99", "ng/L", "", "-99", "DL", "", "TRG", "103", "", "-99", "LOQ", "YES", "96.0", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL01056", "13C8 FOSA", "96", "ng/L", "", "-99", "DL", "", "TRG", "100", "", "-99", "LOQ", "YES", "96.0", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL01892", "13C4 PFHpA", "100", "ng/L", "", "-99", "DL", "", "TRG", "104", "", "-99", "LOQ", "YES", "96.0", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL01893", "13C5 PFPeA", "98", "ng/L", "", "-99", "DL", "", "TRG", "102", "", "-99", "LOQ", "YES", "96.0", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL02116", "13C2 PFTeDA", "93", "ng/L", "", "-99", "DL", "", "TRG", "96", "", "-99", "LOQ", "YES", "96.0", "", "260.3", "10.00", "96", "", "NASB-GWETS-EW-04-103118", "EPA 537 (Mod)", "RES", "320-44773-9", "TALSAC", "STL02337", "13C3 PFBS", "93", "ng/L", "", "-99", "DL", "", "TRG", "104", "", "-99", "LOQ", "YES", "89.3", "", "260.3", "10.00", "96", "", "LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "1763-23-1", "Perfluorooctanesulfonic acid (PFOS)", "37.7", "ng/L", "", "1.1", "DL", "", "SPK", "102", "", "4.0", "LOQ", "YES", "37.1", "", "250.00", "10.00", "3.0", "", "LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "2058-94-8", "Perfluoroundecanoic acid (PFUnA)", "34.5", "ng/L", "", "0.72", "DL", "", "SPK", "86", "", "2.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "1.5", "", "LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "2706-90-3", "Perfluoropentanoic acid (PFPeA)", "39.3", "ng/L", "", "0.43", "DL", "", "SPK", "98", "", "2.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "1.0", "", "LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "307-24-4", "Perfluorohexanoic acid (PFHxA)", "38.1", "ng/L", "", "0.47", "DL", "", "SPK", "95", "", "2.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "1.0", "", "LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "307-55-1", "Perfluorododecanoic acid (PFDDoA)", "34.0", "ng/L", "Q", "0.52", "DL", "", "SPK", "85", "", "2.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "1.5", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "335-67-1", "Perfluorooctanoic acid (PFOA)", "37.8", "ng/L", "", "0.54", "DL", "", "SPK", "95", "", "2.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "1.5", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "335-76-2", "Perfluorodecanoic acid (PFDA)", "39.1", "ng/L", "", "0.48", "DL", "", "SPK", "98", "", "2.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "1.0", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "335-77-3", "Perfluorodecanesulfonic acid (PFDS)", "37.5", "ng/L", "", "0.56", "DL", "", "SPK", "97", "", "2.0", "LOQ", "YES", "38.6", "", "250.00", "10.00", "1.5", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "355-46-4", "Perfluorohexanesulfonic acid (PFHxS)", "32.6", "ng/L", "", "0.38", "DL", "", "SPK", "90", "", "2.0", "LOQ", "YES", "36.4", "", "250.00", "10.00", "1.0", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "375-22-4", "Perfluorobutanoic acid (PFBA)", "40.4", "ng/L", "", "0.59", "DL", "", "SPK", "101", "", "2.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "1.5", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "375-73-5", "Perfluorobutanesulfonic acid (PFBS)", "36.6", "ng/L", "", "0.46", "DL", "", "SPK", "103", "", "2.0", "LOQ", "YES", "35.4", "", "250.00", "10.00", "1.0", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "375-85-9", "Perfluoroheptanoic acid (PFHpA)", "39.4", "ng/L", "", "0.61", "DL", "", "SPK", "99", "", "2.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "1.5", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "375-92-8", "Perfluoroheptanesulfonic Acid (PFHpS)", "35.5", "ng/L", "", "0.37", "DL", "", "SPK", "93", "", "2.0", "LOQ", "YES", "38.1", "", "250.00", "10.00", "1.0", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "375-95-1", "Perfluorononanoic acid (PFNA)", "38.8", "ng/L", "", "0.52", "DL", "", "SPK", "97", "", "2.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "1.5", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "376-06-7", "Perfluorotetradecanoic acid (PFTeA)", "38.4", "ng/L", "", "0.83", "DL", "", "SPK", "96", "", "4.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "3.0", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "72629-94-8", "Perfluorotridecanoic acid (PFTriA)", "36.2", "ng/L", "", "0.76", "DL", "", "SPK", "90", "", "4.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "3.0", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "754-91-6", "Perfluorooctanesulfonamide (FOSA)", "40.1", "ng/L", "", "1.3", "DL", "", "SPK", "100", "", "4.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "3.0", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL00990", "13C4 PFOA", "93.2", "ng/L", "", "-99", "DL", "", "SPK", "93", "", "-99", "LOQ", "YES", "100", "", "250.00", "10.00", "100", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL00991", "13C4 PFOS", "92.0", "ng/L", "", "-99", "DL", "", "SPK", "96", "", "-99", "LOQ", "YES", "95.6", "", "250.00", "10.00", "100", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL00992", "13C4 PFBA", "88.6", "ng/L", "", "-99", "DL", "", "SPK", "89", "", "-99", "LOQ", "YES", "100", "", "250.00", "10.00", "100", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL00993", "13C2 PFHxA", "93.9", "ng/L", "", "-99", "DL", "", "SPK", "94", "", "-99", "LOQ", "YES", "100", "", "250.00", "10.00", "100", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL00994", "18O2 PFHxS", "85.1", "ng/L", "", "-99", "DL", "", "SPK", "90", "", "-99", "LOQ", "YES", "94.6", "", "250.00", "10.00", "100", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL00995", "13C5 PFNA", "92.4", "ng/L", "", "-99", "DL", "", "SPK", "92", "", "-99", "LOQ", "YES", "100", "", "250.00", "10.00", "100", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL00996", "13C2 PFDA", "94.2", "ng/L", "", "-99", "DL", "", "SPK", "94", "", "-99", "LOQ", "YES", "100", "", "250.00", "10.00", "100", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL00997", "13C2 PFUnA", "101", "ng/L", "", "-99", "DL", "", "SPK", "101", "", "-99", "LOQ", "YES", "100", "", "250.00", "10.00", "100", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL00998", "13C2 PFDoA", "94.8", "ng/L", "", "-99", "DL", "", "SPK", "95", "", "-99", "LOQ", "YES", "100", "", "250.00", "10.00", "100", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL01056", "13C8 FOSA", "87.5", "ng/L", "", "-99", "DL", "", "SPK", "88", "", "-99", "LOQ", "YES", "100", "", "250.00", "10.00", "100", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL01892", "13C4 PFHpA", "85.7", "ng/L", "", "-99", "DL", "", "SPK", "86", "", "-99", "LOQ", "YES", "100", "", "250.00", "10.00", "100", ""

"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL01893", "13C5

PFPeA", "88.8", "ng/L", "", "-99", "DL", "", "SPK", "89", "", "-99", "LOQ", "YES", "100", "", "250.00", "10.00", "100", ""
"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL02116", "13C2
PFTeDA", "83.8", "ng/L", "", "-99", "DL", "", "SPK", "84", "", "-99", "LOQ", "YES", "100", "", "250.00", "10.00", "100", ""
"LCS 320-258787/2-A", "EPA 537 (Mod)", "RES", "LCS 320-258787/2-A", "TALSAC", "STL02337", "13C3
PFBS", "79.6", "ng/L", "", "-99", "DL", "", "SPK", "86", "", "-99", "LOQ", "YES", "93.0", "", "250.00", "10.00", "100", ""
"LCS 320-264671/2-A", "EPA 537 (Mod)", "RES", "LCS 320-264671/2-A", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid
(PFOS)", "35.6", "ng/L", "M", "1.1", "DL", "", "SPK", "96", "", "4.0", "LOQ", "YES", "37.1", "", "250.00", "10.00", "3.0", ""
"LCS 320-264671/2-A", "EPA 537 (Mod)", "RES", "LCS 320-264671/2-A", "TALSAC", "307-55-
1", "Perfluorododecanoic acid
(PFDoA)", "39.0", "ng/L", "", "0.52", "DL", "", "SPK", "98", "", "2.0", "LOQ", "YES", "40.0", "", "250.00", "10.00", "1.5", ""
"LCS 320-264671/2-A", "EPA 537 (Mod)", "RES", "LCS 320-264671/2-A", "TALSAC", "STL00991", "13C4
PFOS", "89.9", "ng/L", "", "-99", "DL", "", "SPK", "94", "", "-99", "LOQ", "YES", "95.6", "", "250.00", "10.00", "100", ""
"LCS 320-264671/2-A", "EPA 537 (Mod)", "RES", "LCS 320-264671/2-A", "TALSAC", "STL00998", "13C2
PFDoA", "86.2", "ng/L", "", "-99", "DL", "", "SPK", "86", "", "-99", "LOQ", "YES", "100", "", "250.00", "10.00", "100", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid
(PFOS)", "37.1", "ng/L", "", "1.1", "DL", "", "SPK", "100", "2", "4.0", "LOQ", "YES", "37.1", "LCS 320-258787/2-
A", "250.00", "10.00", "3.0", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "2058-94-
8", "Perfluoroundecanoic acid
(PFUnA)", "37.6", "ng/L", "", "0.72", "DL", "", "SPK", "94", "9", "2.0", "LOQ", "YES", "40.0", "LCS 320-258787/2-
A", "250.00", "10.00", "1.5", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "2706-90-
3", "Perfluoropentanoic acid
(PFPeA)", "38.2", "ng/L", "", "0.43", "DL", "", "SPK", "96", "3", "2.0", "LOQ", "YES", "40.0", "LCS 320-258787/2-
A", "250.00", "10.00", "1.0", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "307-24-
4", "Perfluorohexanoic acid
(PFHxA)", "36.7", "ng/L", "", "0.47", "DL", "", "SPK", "92", "4", "2.0", "LOQ", "YES", "40.0", "LCS 320-258787/2-
A", "250.00", "10.00", "1.0", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "307-55-
1", "Perfluorododecanoic acid
(PFDoA)", "32.2", "ng/L", "Q", "0.52", "DL", "", "SPK", "81", "6", "2.0", "LOQ", "YES", "40.0", "LCS 320-258787/2-
A", "250.00", "10.00", "1.5", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "335-67-
1", "Perfluorooctanoic acid (PFOA)", "38.3", "ng/L", "", "0.54", "DL", "", "SPK", "96", "1", "2.0", "LOQ", "YES", "40.0", "LCS
320-258787/2-A", "250.00", "10.00", "1.5", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "335-76-
2", "Perfluorodecanoic acid (PFDA)", "37.1", "ng/L", "", "0.48", "DL", "", "SPK", "93", "5", "2.0", "LOQ", "YES", "40.0", "LCS
320-258787/2-A", "250.00", "10.00", "1.0", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "335-77-
3", "Perfluorodecanesulfonic acid
(PFDS)", "38.6", "ng/L", "", "0.56", "DL", "", "SPK", "100", "3", "2.0", "LOQ", "YES", "38.6", "LCS 320-258787/2-
A", "250.00", "10.00", "1.5", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "355-46-
4", "Perfluorohexanesulfonic acid
(PFHxS)", "32.8", "ng/L", "", "0.38", "DL", "", "SPK", "90", "0", "2.0", "LOQ", "YES", "36.4", "LCS 320-258787/2-
A", "250.00", "10.00", "1.0", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "375-22-
4", "Perfluorobutanoic acid (PFBA)", "39.8", "ng/L", "", "0.59", "DL", "", "SPK", "99", "2", "2.0", "LOQ", "YES", "40.0", "LCS
320-258787/2-A", "250.00", "10.00", "1.5", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "375-73-
5", "Perfluorobutanesulfonic acid

(PFBS),"38.1","ng/L",,"0.46","DL",,"SPK","108","4","2.0","LOQ","YES","35.4","LCS 320-258787/2-A","250.00","10.00","1.0",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","375-85-9","Perfluoroheptanoic acid
(PFHpA),"36.8","ng/L",,"0.61","DL",,"SPK","92","7","2.0","LOQ","YES","40.0","LCS 320-258787/2-A","250.00","10.00","1.5",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","375-92-8","Perfluoroheptanesulfonic Acid
(PFHpS),"36.0","ng/L",,"0.37","DL",,"SPK","95","1","2.0","LOQ","YES","38.1","LCS 320-258787/2-A","250.00","10.00","1.0",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","375-95-1","Perfluorononanoic acid (PFNA),"38.8","ng/L",,"0.52","DL",,"SPK","97","0","2.0","LOQ","YES","40.0","LCS 320-258787/2-A","250.00","10.00","1.5",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","376-06-7","Perfluorotetradecanoic acid
(PFTeA),"38.1","ng/L",,"0.83","DL",,"SPK","95","1","4.0","LOQ","YES","40.0","LCS 320-258787/2-A","250.00","10.00","3.0",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","72629-94-8","Perfluorotridecanoic acid
(PFTriA),"34.2","ng/L",,"0.76","DL",,"SPK","86","6","4.0","LOQ","YES","40.0","LCS 320-258787/2-A","250.00","10.00","3.0",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","754-91-6","Perfluorooctanesulfonamide
(FOSA),"38.7","ng/L",,"1.3","DL",,"SPK","97","4","4.0","LOQ","YES","40.0","LCS 320-258787/2-A","250.00","10.00","3.0",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","STL00990","13C4 PFOA","86.8","ng/L",,"-99","DL",,"SPK","87",,"-99","LOQ","YES","100","LCS 320-258787/2-A","250.00","10.00","100",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","STL00991","13C4 PFOS","86.4","ng/L",,"-99","DL",,"SPK","90",,"-99","LOQ","YES","95.6","LCS 320-258787/2-A","250.00","10.00","100",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","STL00992","13C4 PFBA","82.6","ng/L",,"-99","DL",,"SPK","83",,"-99","LOQ","YES","100","LCS 320-258787/2-A","250.00","10.00","100",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","STL00993","13C2 PFHxA","88.9","ng/L",,"-99","DL",,"SPK","89",,"-99","LOQ","YES","100","LCS 320-258787/2-A","250.00","10.00","100",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","STL00994","18O2 PFHxS","85.2","ng/L",,"-99","DL",,"SPK","90",,"-99","LOQ","YES","94.6","LCS 320-258787/2-A","250.00","10.00","100",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","STL00995","13C5 PFNA","88.1","ng/L",,"-99","DL",,"SPK","88",,"-99","LOQ","YES","100","LCS 320-258787/2-A","250.00","10.00","100",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","STL00996","13C2 PFDA","89.4","ng/L",,"-99","DL",,"SPK","89",,"-99","LOQ","YES","100","LCS 320-258787/2-A","250.00","10.00","100",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","STL00997","13C2 PFUnA","91.5","ng/L",,"-99","DL",,"SPK","91",,"-99","LOQ","YES","100","LCS 320-258787/2-A","250.00","10.00","100",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","STL00998","13C2 PFDaA","92.8","ng/L",,"-99","DL",,"SPK","93",,"-99","LOQ","YES","100","LCS 320-258787/2-A","250.00","10.00","100",,"
"LCSD 320-258787/3-A","EPA 537 (Mod)","RES","LCSD 320-258787/3-A","TALSAC","STL01056","13C8 FOA","82.0","ng/L",,"-99","DL",,"SPK","82",,"-99","LOQ","YES","100","LCS 320-258787/2-

A", "250.00", "10.00", "100", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "STL01892", "13C4
PFHpA", "88.7", "ng/L", "", "-99", "DL", "", "SPK", "89", "", "-99", "LOQ", "YES", "100", "LCS 320-258787/2-
A", "250.00", "10.00", "100", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "STL01893", "13C5
PFPeA", "85.6", "ng/L", "", "-99", "DL", "", "SPK", "86", "", "-99", "LOQ", "YES", "100", "LCS 320-258787/2-
A", "250.00", "10.00", "100", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "STL02116", "13C2
PFTeDA", "77.4", "ng/L", "", "-99", "DL", "", "SPK", "77", "", "-99", "LOQ", "YES", "100", "LCS 320-258787/2-
A", "250.00", "10.00", "100", ""
"LCSD 320-258787/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-258787/3-A", "TALSAC", "STL02337", "13C3
PFBS", "74.8", "ng/L", "", "-99", "DL", "", "SPK", "80", "", "-99", "LOQ", "YES", "93.0", "LCS 320-258787/2-
A", "250.00", "10.00", "100", ""
"LCSD 320-264671/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-264671/3-A", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid
(PFOS)", "34.3", "ng/L", "M", "1.1", "DL", "", "SPK", "92", "4", "4.0", "LOQ", "YES", "37.1", "LCS 320-264671/2-
A", "250.00", "10.00", "3.0", ""
"LCSD 320-264671/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-264671/3-A", "TALSAC", "307-55-
1", "Perfluorododecanoic acid
(PFDoA)", "35.9", "ng/L", "", "0.52", "DL", "", "SPK", "90", "8", "2.0", "LOQ", "YES", "40.0", "LCS 320-264671/2-
A", "250.00", "10.00", "1.5", ""
"LCSD 320-264671/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-264671/3-A", "TALSAC", "STL00991", "13C4
PFOS", "95.3", "ng/L", "", "-99", "DL", "", "SPK", "100", "", "-99", "LOQ", "YES", "95.6", "LCS 320-264671/2-
A", "250.00", "10.00", "100", ""
"LCSD 320-264671/3-A", "EPA 537 (Mod)", "RES", "LCSD 320-264671/3-A", "TALSAC", "STL00998", "13C2
PFDoA", "98.3", "ng/L", "", "-99", "DL", "", "SPK", "98", "", "-99", "LOQ", "YES", "100", "LCS 320-264671/2-
A", "250.00", "10.00", "100", ""
"MB 320-258787/1-A", "EPA 537 (Mod)", "RES", "MB 320-258787/1-A", "TALSAC", "1763-23-
1", "Perfluorooctanesulfonic acid
(PFOS)", "3.58", "ng/L", "J", "1.1", "DL", "", "TRG", "", "", "4.0", "LOQ", "YES", "-99", "", "250.00", "10.00", "3.0", ""
"MB 320-258787/1-A", "EPA 537 (Mod)", "RES", "MB 320-258787/1-A", "TALSAC", "2058-94-
8", "Perfluoroundecanoic acid
(PFUnA)", "1.5", "ng/L", "U", "0.72", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "250.00", "10.00", "1.5", ""
"MB 320-258787/1-A", "EPA 537 (Mod)", "RES", "MB 320-258787/1-A", "TALSAC", "2706-90-3", "Perfluoropentanoic
acid (PFPeA)", "1.0", "ng/L", "U", "0.43", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "250.00", "10.00", "1.0", ""
"MB 320-258787/1-A", "EPA 537 (Mod)", "RES", "MB 320-258787/1-A", "TALSAC", "307-24-4", "Perfluorohexanoic
acid (PFHxA)", "1.0", "ng/L", "U", "0.47", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "250.00", "10.00", "1.0", ""
"MB 320-258787/1-A", "EPA 537 (Mod)", "RES", "MB 320-258787/1-A", "TALSAC", "307-55-1", "Perfluorododecanoic
acid (PFDoA)", "1.5", "ng/L", "U", "0.52", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "250.00", "10.00", "1.5", ""
"MB 320-258787/1-A", "EPA 537 (Mod)", "RES", "MB 320-258787/1-A", "TALSAC", "335-67-1", "Perfluorooctanoic
acid (PFOA)", "1.5", "ng/L", "U", "0.54", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "250.00", "10.00", "1.5", ""
"MB 320-258787/1-A", "EPA 537 (Mod)", "RES", "MB 320-258787/1-A", "TALSAC", "335-76-2", "Perfluorodecanoic
acid (PFDA)", "1.0", "ng/L", "U", "0.48", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "250.00", "10.00", "1.0", ""
"MB 320-258787/1-A", "EPA 537 (Mod)", "RES", "MB 320-258787/1-A", "TALSAC", "335-77-
3", "Perfluorodecanesulfonic acid
(PFDS)", "1.5", "ng/L", "U", "0.56", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "250.00", "10.00", "1.5", ""
"MB 320-258787/1-A", "EPA 537 (Mod)", "RES", "MB 320-258787/1-A", "TALSAC", "355-46-
4", "Perfluorohexanesulfonic acid
(PFHxS)", "1.0", "ng/L", "U", "0.38", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "250.00", "10.00", "1.0", ""
"MB 320-258787/1-A", "EPA 537 (Mod)", "RES", "MB 320-258787/1-A", "TALSAC", "375-22-4", "Perfluorobutanoic
acid (PFBA)", "1.5", "ng/L", "U", "0.59", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "250.00", "10.00", "1.5", ""
"MB 320-258787/1-A", "EPA 537 (Mod)", "RES", "MB 320-258787/1-A", "TALSAC", "375-73-
5", "Perfluorobutanesulfonic acid
(PFBS)", "1.0", "ng/L", "U", "0.46", "DL", "", "TRG", "", "", "2.0", "LOQ", "YES", "-99", "", "250.00", "10.00", "1.0", ""

"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","375-85-9","Perfluoroheptanoic acid (PFHpA)","1.5","ng/L","U","0.61","DL","","TRG","","","2.0","LOQ","YES","-99","","250.00","10.00","1.5",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","375-92-8","Perfluoroheptanesulfonic Acid (PFHpS)","1.0","ng/L","U","0.37","DL","","TRG","","","2.0","LOQ","YES","-99","","250.00","10.00","1.0",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","375-95-1","Perfluorononanoic acid (PFNA)","1.5","ng/L","U","0.52","DL","","TRG","","","2.0","LOQ","YES","-99","","250.00","10.00","1.5",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","376-06-7","Perfluorotetradecanoic acid (PFTeA)","3.0","ng/L","U","0.83","DL","","TRG","","","4.0","LOQ","YES","-99","","250.00","10.00","3.0",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","72629-94-8","Perfluorotridecanoic acid (PFTriA)","3.0","ng/L","U","0.76","DL","","TRG","","","4.0","LOQ","YES","-99","","250.00","10.00","3.0",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","754-91-6","Perfluorooctanesulfonamide (FOSA)","3.0","ng/L","U","1.3","DL","","TRG","","","4.0","LOQ","YES","-99","","250.00","10.00","3.0",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL00990","13C4 PFOA","93.4","ng/L","","-99","DL","","TRG","93","","-99","LOQ","YES","100","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL00991","13C4 PFOS","87.1","ng/L","","-99","DL","","TRG","91","","-99","LOQ","YES","95.6","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL00992","13C4 PFBA","86.6","ng/L","","-99","DL","","TRG","87","","-99","LOQ","YES","100","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL00993","13C2 PFHxA","92.4","ng/L","","-99","DL","","TRG","92","","-99","LOQ","YES","100","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL00994","18O2 PFHxS","85.4","ng/L","","-99","DL","","TRG","90","","-99","LOQ","YES","94.6","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL00995","13C5 PFNA","92.2","ng/L","","-99","DL","","TRG","92","","-99","LOQ","YES","100","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL00996","13C2 PFDA","89.1","ng/L","","-99","DL","","TRG","89","","-99","LOQ","YES","100","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL00997","13C2 PFUnA","96.9","ng/L","","-99","DL","","TRG","97","","-99","LOQ","YES","100","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL00998","13C2 PFDoA","89.2","ng/L","","-99","DL","","TRG","89","","-99","LOQ","YES","100","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL01056","13C8 FOSA","83.7","ng/L","","-99","DL","","TRG","84","","-99","LOQ","YES","100","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL01892","13C4 PFHpA","86.5","ng/L","","-99","DL","","TRG","87","","-99","LOQ","YES","100","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL01893","13C5 PFPeA","89.0","ng/L","","-99","DL","","TRG","89","","-99","LOQ","YES","100","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL02116","13C2 PFTeDA","81.3","ng/L","","-99","DL","","TRG","81","","-99","LOQ","YES","100","","250.00","10.00","100",""
"MB 320-258787/1-A","EPA 537 (Mod)","RES","MB 320-258787/1-A","TALSAC","STL02337","13C3 PFBS","78.6","ng/L","","-99","DL","","TRG","85","","-99","LOQ","YES","93.0","","250.00","10.00","100",""
"MB 320-264671/1-A","EPA 537 (Mod)","RES","MB 320-264671/1-A","TALSAC","1763-23-1","Perfluorooctanesulfonic acid (PFOS)","3.0","ng/L","U M","1.1","DL","","TRG","","","4.0","LOQ","YES","-99","","250.00","10.00","3.0",""
"MB 320-264671/1-A","EPA 537 (Mod)","RES","MB 320-264671/1-A","TALSAC","307-55-1","Perfluorododecanoic acid (PFDoA)","1.5","ng/L","U M","0.52","DL","","TRG","","","2.0","LOQ","YES","-99","","250.00","10.00","1.5",""
"MB 320-264671/1-A","EPA 537 (Mod)","RES","MB 320-264671/1-A","TALSAC","STL00991","13C4 PFOS","95.4","ng/L","","-99","DL","","TRG","100","","-99","LOQ","YES","95.6","","250.00","10.00","100",""
"MB 320-264671/1-A","EPA 537 (Mod)","RES","MB 320-264671/1-A","TALSAC","STL00998","13C2 PFDoA","85.8","ng/L","","-99","DL","","TRG","86","","-99","LOQ","YES","100","","250.00","10.00","100",""
"Unknown","Unknown","TP-PFC-036-TPI","10/31/2018 08:45","AQ","320-44773-1","NM","","2.10","EPA 537

(Mod),"3535","RES","11/13/2018 08:37","12/05/2018
17:23","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","TP-PFC-036-TPI","10/31/2018 08:45","AQ","320-44773-1","NM","","2.10","EPA 537
(Mod),"3535","DL","11/13/2018 08:37","12/12/2018
11:27","TALSAC","COA","WET","NA","10","NA","NA","","100","320-258787","320-258787","NA","320-
264745","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","TP-PFC-036-TPI","10/31/2018 08:45","AQ","320-44773-1","NM","","2.10","EPA 537
(Mod),"3535","RE","12/12/2018 07:23","12/14/2018
18:39","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-
265165","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-05-103118","10/31/2018 11:35","AQ","320-44773-
10","NM","","2.10","EPA 537 (Mod)","3535","RES","11/13/2018 08:37","12/05/2018
18:38","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-05-103118","10/31/2018 11:35","AQ","320-44773-
10","NM","","2.10","EPA 537 (Mod)","3535","DL","11/13/2018 08:37","12/12/2018
11:57","TALSAC","COA","WET","NA","20","NA","NA","","100","320-258787","320-258787","NA","320-
264745","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-05-103118","10/31/2018 11:35","AQ","320-44773-
10","NM","","2.10","EPA 537 (Mod)","3535","RE","12/12/2018 07:23","12/14/2018
19:55","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-
265165","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","TP-PFC-036-MID-CARBON","10/31/2018 08:50","AQ","320-44773-
2","NM","","2.10","EPA 537 (Mod)","3535","RES","11/13/2018 08:37","12/05/2018
17:30","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","TP-PFC-036-MID-CARBON","10/31/2018 08:50","AQ","320-44773-
2","NM","","2.10","EPA 537 (Mod)","3535","RE","12/12/2018 07:23","12/14/2018
18:47","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-
265165","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","TP-PFC-036-TPE","10/31/2018 08:55","AQ","320-44773-3","NM","","2.10","EPA 537
(Mod)","3535","RES","11/13/2018 08:37","12/05/2018
17:38","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","TP-PFC-036-TPE","10/31/2018 08:55","AQ","320-44773-3","NM","","2.10","EPA 537
(Mod)","3535","RE","12/12/2018 07:23","12/14/2018
18:55","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-
265165","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","TP-PFC-036-TPE-D","10/31/2018 00:00","AQ","320-44773-4","FD","","2.10","EPA 537
(Mod)","3535","RES","11/13/2018 08:37","12/05/2018
17:45","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","TP-PFC-036-TPE-D","10/31/2018 00:00","AQ","320-44773-4","FD","","2.10","EPA 537
(Mod)","3535","RE","12/12/2018 07:23","12/14/2018
19:02","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-
265165","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-08-103118","10/31/2018 10:00","AQ","320-44773-
5","NM","","2.10","EPA 537 (Mod)","3535","RES","11/13/2018 08:37","12/05/2018
17:53","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-08-103118","10/31/2018 10:00","AQ","320-44773-
5","NM","","2.10","EPA 537 (Mod)","3535","RE","12/12/2018 07:23","12/14/2018
19:10","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-

265165","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-01-103118","10/31/2018 10:15","AQ","320-44773-
6","NM","","2.10","EPA 537 (Mod)","3535","RES","11/13/2018 08:37","12/05/2018
18:00","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-01-103118","10/31/2018 10:15","AQ","320-44773-
6","NM","","2.10","EPA 537 (Mod)","3535","RE","12/12/2018 07:23","12/14/2018
19:17","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-
265165","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-09-103118","10/31/2018 10:30","AQ","320-44773-
7","NM","","2.10","EPA 537 (Mod)","3535","RES","11/13/2018 08:37","12/05/2018
18:08","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-09-103118","10/31/2018 10:30","AQ","320-44773-
7","NM","","2.10","EPA 537 (Mod)","3535","RE","12/12/2018 07:23","12/14/2018
19:25","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-
265165","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-09-103118","10/31/2018 10:30","AQ","320-44773-
7","NM","","2.10","EPA 537 (Mod)","3535","DL","11/13/2018 08:37","12/14/2018
21:17","TALSAC","COA","WET","NA","5","NA","NA","","100","320-258787","320-258787","NA","320-
265418","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-02-103118","10/31/2018 10:50","AQ","320-44773-
8","NM","","2.10","EPA 537 (Mod)","3535","RES","11/13/2018 08:37","12/05/2018
18:23","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-02-103118","10/31/2018 10:50","AQ","320-44773-
8","NM","","2.10","EPA 537 (Mod)","3535","DL","11/13/2018 08:37","12/12/2018
11:42","TALSAC","COA","WET","NA","2","NA","NA","","100","320-258787","320-258787","NA","320-
264745","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-02-103118","10/31/2018 10:50","AQ","320-44773-
8","NM","","2.10","EPA 537 (Mod)","3535","RE","12/12/2018 07:23","12/14/2018
19:40","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-
265165","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-04-103118","10/31/2018 11:10","AQ","320-44773-
9","NM","","2.10","EPA 537 (Mod)","3535","RES","11/13/2018 08:37","12/05/2018
18:30","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-04-103118","10/31/2018 11:10","AQ","320-44773-
9","NM","","2.10","EPA 537 (Mod)","3535","DL","11/13/2018 08:37","12/12/2018
11:49","TALSAC","COA","WET","NA","10","NA","NA","","100","320-258787","320-258787","NA","320-
264745","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","NASB-GWETS-EW-04-103118","10/31/2018 11:10","AQ","320-44773-
9","NM","","2.10","EPA 537 (Mod)","3535","RE","12/12/2018 07:23","12/14/2018
19:47","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-
265165","320-44773-1","11/01/2018 10:20","12/17/2018 15:43",""
"Unknown","Unknown","LCS 320-258787/2-A","","AQ","LCS 320-258787/2-A","LCS","","-99","EPA 537
(Mod)","3535","RES","11/13/2018 08:37","12/05/2018
17:08","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/13/2018 08:37","12/17/2018 15:43",""
"Unknown","Unknown","LCS 320-264671/2-A","","AQ","LCS 320-264671/2-A","LCS","","-99","EPA 537
(Mod)","3535","RES","12/12/2018 07:23","12/14/2018
18:24","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-
265165","320-44773-1","12/12/2018 07:23","12/17/2018 15:43",""
"Unknown","Unknown","LCSD 320-258787/3-A","","AQ","LCSD 320-258787/3-A","LCSD","","-99","EPA 537

(Mod),"3535","RES","11/13/2018 08:37","12/05/2018
17:15","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/13/2018 08:37","12/17/2018 15:43",""
"Unknown","Unknown","LCSD 320-264671/3-A","","AQ","LCSD 320-264671/3-A","LCSD","","-99","EPA 537
(Mod),"3535","RES","12/12/2018 07:23","12/16/2018
01:20","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-
265591","320-44773-1","12/12/2018 07:23","12/17/2018 15:43",""
"Unknown","Unknown","MB 320-258787/1-A","","AQ","MB 320-258787/1-A","MB","","-99","EPA 537
(Mod),"3535","RES","11/13/2018 08:37","12/05/2018
17:00","TALSAC","COA","WET","NA","1","NA","NA","","100","320-258787","320-258787","NA","320-
263304","320-44773-1","11/13/2018 08:37","12/17/2018 15:43",""
"Unknown","Unknown","MB 320-264671/1-A","","AQ","MB 320-264671/1-A","MB","","-99","EPA 537
(Mod),"3535","RES","12/12/2018 07:23","12/14/2018
18:17","TALSAC","COA","WET","NA","1","NA","NA","","100","320-264671","320-264671","NA","320-
265165","320-44773-1","12/12/2018 07:23","12/17/2018 15:43",""



TETRA TECH

INTERNAL CORRESPONDENCE

TO: J. ORIENT **DATE:** DECEMBER 26, 2018
FROM: MICHELLE L. WOEBER **COPIES:** DV FILE
SUBJECT: ORGANIC DATA VALIDATION – POLYFLUOROALKYL SUBSTANCES (PFAS)
FORMER NAVAL AIR STATION (NAS) BRUNSWICK, BRUNSWICK, ME
CTO WE21 PFC ASSESSMENT
SAMPLE DELIVERY GROUP (SDG) 320-44773-1
SAMPLES: 10/Aqueous/PFAS
NASB-GWETS-EW-01-103118 NASB-GWETS-EW-02-103118
NASB-GWETS-EW-04-103118 NASB-GWETS-EW-05-103118
NASB-GWETS-EW-08-103118 NASB-GWETS-EW-09-103118
TP-PFC-036-MID-CARBON TP-PFC-036-TPE
TP-PFC-036-TPE-D TP-PFC-036-TPI

Overview

The sample set for former NAS Brunswick, SDG 320-44773-1 consisted of ten (10) aqueous environmental samples. All ten (10) aqueous samples were analyzed for Polyfluoroalkyl Substances (PFAS). One field duplicate pair was included in this Sample Delivery Group (SDG): TP-PFC-036-TPE/TP-PFC-036-TPE-D.

The samples were collected by Tetra Tech, Inc. on October 31, 2018 and analyzed by Test America, Inc. The analyses were conducted in compliance with Department of Defense (DoD)/Department of Energy (DOE) Quality Systems Manual (QSM) for Environmental Laboratories version 5.1 PFAS using LC/MS/MS Appendix B Table B-15 (July 2017). The data was evaluated based on the following parameters:

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

The asterisk (*) indicates that all quality control criteria were met for this parameter. Qualified (if applicable) analytical results are summarized in Appendix A. Results as reported by the laboratory are presented in Appendix B, and Appendix C contains the documentation to support the findings as discussed in this data

validation report. An EPA Region 1 tier II validation was performed on the data in these SDGs. The text of this report has been formulated to address only those areas affecting data quality.

PFAS

The following compounds were detected in the Initial/Continuing Calibration Blanks (ICB/CCBs) at the following maximum concentrations:

<u>Analyte</u>	<u>Maximum Concentration</u>	<u>Action Level Limit of Quantitation (LOQ) > or <</u>
Perfluorooctanesulfonic Acid (PFOS) ⁽¹⁾	3.58 ng/L (>1/2 LOQ)	< LOQ
Perfluorohexanesulfonic acid (PFHxS) ⁽²⁾	0.00856 ng/ml	< LOQ

(1) – Maximum concentration detected in the laboratory method blank, MB 320-258787/1-A, performed on instrument A8_N affecting all samples in preparation batch 320-258787.

(2) – Maximum concentration detected in the ICB and CCB performed on instrument A8_N affecting all undiluted samples.

The detected results reported for these compounds reported below the Limit of Detection (LOD) were raised to LOD and qualified as non-detected, (U). No action was required for concentrations > LOQ.

The Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) analyses associated with preparation batch #320-258787 had Percent Recoveries (%Rs) for Perfluorododecanoic Acid (PFDoA) (actual recoveries were 85% and 81%) below the lower quality control limit (87%). All samples were affected. The samples were re-extracted grossly (> 2X) outside of the 14-day holding time and reanalyzed. The results from the initial analyses were used in the data validation. The non-detected results reported for PFDoA in the affected samples were qualified as estimated, (UJ).

NOTES

The injected internal standard compound, 13C2-Perfluorooctanoic Acid (13C2-PFOA), had areas below the 50% quality control limit in the diluted analyses of samples NASB-GWETS-EW-04-103118, NASB-GWETS-EW-05-103118, NASB-GWETS-EW-09-103118, and TP-PFC-036-TPI. No action was taken because the samples were diluted 10X, 20X, 5X, and 10X, respectively, and the internal standard area responses varied because of the dilutions.

Field Reagent Blanks (FRBs) were not provided with the environmental samples.

The following samples were further diluted because the compounds below exceeded the instrument calibration range. The results for these compounds from the dilutions were used in the data validation.

<u>Sample</u>	<u>Compound</u>	<u>Dilution</u>
NASB-GWETS-EW-02-103118	Pentadecafluorooctanoic Acid (PFOA)	2X
NASB-GWETS-EW-04-103118	Pentadecafluorooctanoic Acid (PFOA)	10X
NASB-GWETS-EW-05-103118	Pentadecafluorooctanoic Acid (PFOA)	20X
	Perfluorohexanesulfonic Acid (PFHxS)	20X
	Perfluorohexanoic Acid (PFHxA)	20X
	Perfluorooctanesulfonic Acid (PFOS)	20X
	Perfluoropentanoic Acid (PFPeA)	20X
NASB-GWETS-EW-09-103118	Pentadecafluorooctanoic Acid (PFOA)	5X
	Perfluorooctanesulfonic Acid (PFOS)	5X

TO: J. ORIENT
SDGs: 320-44773-1

PAGE 3

<u>Sample</u>	<u>Compound</u>	<u>Dilution</u>
TP-PFC-036-TPI	Pentadecafluorooctanoic Acid (PFOA)	10X
	Perfluorohexanesulfonic Acid (PFHxS)	10X
	Perfluorohexanoic Acid (PFHxA)	10X

Detected results reported below the LOQ but above the Detection Limit (DL) were qualified as estimated, (J). Non-detected results are reported to LOD.

EXECUTIVE SUMMARY

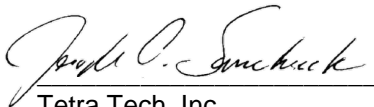
Laboratory Performance: Two analytes were detected in the laboratory method blank and ICBs/CCBs. The injected internal standard areas were low in the diluted samples. The LCS/LCSD %Rs for PFDoA were marginally low in the initial preparation batch.

Other Factors Affecting Data Quality: Several samples were further diluted. Detected results below the LOQ were estimated.

The data for these analyses were reviewed with reference to the EPA New England Environmental Data Review Supplement for Regional Data Review Elements Superfund Guidance/Procedures (April 2013), National Functional Guidelines for Organic Data Validation (January 2017), and the DoD/DOE QSM for Environmental Laboratories" (July 2017). The text of this report has been formulated to address only those areas affecting data quality.



Tetra Tech, Inc.
Michelle L. Woeber
Environmental Chemist



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

Attachments:

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

Data Qualifier Definitions

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

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

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

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

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PENTADECAFLUOROOCANOIC ACID (PFOA)	100						630					
PERFLUOROBUTANESULFONIC ACID (PFBS)	39			23						45		
PERFLUOROBUTANOIC ACID (PFBA)	8.6			35						76		
PERFLUORODECANESULFONIC ACID (PFDS)	1.4 U			1.6 U						1.4 U		
PERFLUORODECANOIC ACID (PFDA)	0.92 U			0.74 J	P					0.9 J	P	
PERFLUORODODECANOIC ACID (PFDOA)	1.4 UJ		E	1.6 UJ		E				1.4 UJ		E
PERFLUOROHEPTANESULFONIC ACID (PFHPS)	5.4			4.7						5.4		
PERFLUOROHEPTANOIC ACID (PFHPA)	10			32						62		
PERFLUOROHEXANESULFONIC ACID (PFHXS)	180			230						310		
PERFLUOROHEXANOIC ACID (PFHXA)	47			160						350		
PERFLUORONONANOIC ACID (PFNA)	1.4 U			2.2						2.9		
PERFLUOROOCOTANE SULFONAMIDE (FOSA)	3.5 J		P	3.1 U						2.9 U		
PERFLUOROOCOTANESULFONIC ACID (PFOS)	100			330						280		
PERFLUOROPENTANOIC ACID (PFPEA)	25			100						210		
PERFLUOROTETRADECANOIC ACID (PFTEA)	2.8 U			3.1 U						2.9 U		
PERFLUOROTRIDECANOIC ACID (PFTRIA)	2.8 U			3.1 U						2.9 U		
PERFLUOROUNDECANOIC ACID (PFUNA)	1.4 U			1.6 U						1.4 U		

PROJ_NO: 08005-WE21 SDG: 320-44773-1 FRACTION: PFAS MEDIA: WATER	NSAMPLE	NASB-GWETS-EW-04-103118-DL			NASB-GWETS-EW-05-103118			NASB-GWETS-EW-05-103118-DL			NASB-GWETS-EW-08-103118		
	LAB_ID	320-44773-9			320-44773-10			320-44773-10			320-44773-5		
	SAMP_DATE	10/31/2018			10/31/2018			10/31/2018			10/31/2018		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	
PENTADECAFLUOROOCANOIC ACID (PFOA)	1500						5900			220			
PERFLUOROBUTANESULFONIC ACID (PFBS)				150						23			
PERFLUOROBUTANOIC ACID (PFBA)				160						12			
PERFLUORODECANESULFONIC ACID (PFDS)				1.4	U					1.5	U		
PERFLUORODECANOIC ACID (PFDA)				0.99	J	P				0.98	U		
PERFLUORODODECANOIC ACID (PFDOA)				1.4	UJ	E				1.5	UJ	E	
PERFLUOROHEPTANESULFONIC ACID (PFHPS)				11						1.7	J	P	
PERFLUOROHEPTANOIC ACID (PFHPA)				180						13			
PERFLUOROHEXANESULFONIC ACID (PFHXS)							1000			120			
PERFLUOROHEXANOIC ACID (PFHXA)							860			63			
PERFLUORONONANOIC ACID (PFNA)				3.5						0.55	J	P	
PERFLUOROOCOTANE SULFONAMIDE (FOSA)				2.8	U					2.9	U		
PERFLUOROOCOTANESULFONIC ACID (PFOS)							360			48			
PERFLUOROPENTANOIC ACID (PFPEA)							510			35			
PERFLUOROTETRADECANOIC ACID (PFTEA)				2.8	U					2.9	U		
PERFLUOROTRIDECANOIC ACID (PFTRIA)				2.8	U					2.9	U		
PERFLUOROUNDECANOIC ACID (PFUNA)				1.4	U					1.5	U		

PROJ_NO: 08005-WE21 SDG: 320-44773-1 FRACTION: PFAS MEDIA: WATER	NSAMPLE	NASB-GWETS-EW-09-103118			NASB-GWETS-EW-09-103118-DL			TP-PFC-036-MID-CARBON			TP-PFC-036-TPE		
	LAB_ID	320-44773-7			320-44773-7			320-44773-2			320-44773-3		
	SAMP_DATE	10/31/2018			10/31/2018			10/31/2018			10/31/2018		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	
PENTADECAFLUOROOCANOIC ACID (PFOA)				1000			89			10			
PERFLUOROBUTANESULFONIC ACID (PFBS)	40						15			5.6			
PERFLUOROBUTANOIC ACID (PFBA)	77						120			120			
PERFLUORODECANESULFONIC ACID (PFDS)	1.4	U					1.4	U		1.4	U		
PERFLUORODECANOIC ACID (PFDA)	1.6	J	P				0.94	U		0.94	U		
PERFLUORODODECANOIC ACID (PFDOA)	1.4	UJ	E				1.4	UJ	E	1.4	UJ	E	
PERFLUOROHEPTANESULFONIC ACID (PFHPS)	8.5						0.94	U		0.94	U		
PERFLUOROHEPTANOIC ACID (PFHPA)	49						11			2.3			
PERFLUOROHEXANESULFONIC ACID (PFHXS)	300						6.4			0.94	U	A	
PERFLUOROHEXANOIC ACID (PFHXA)	330						300			180			
PERFLUORONONANOIC ACID (PFNA)	3.1						1.4	U		1.4	U		
PERFLUOROOCOTANE SULFONAMIDE (FOSA)	1.5	J	P				2.8	U		2.8	U		
PERFLUOROOCOTANESULFONIC ACID (PFOS)				570			2.8	U	A	2.8	U	A	
PERFLUOROPENTANOIC ACID (PFPEA)	220						290			280			
PERFLUOROTETRADECANOIC ACID (PFTEA)	2.8	U					2.8	U		2.8	U		
PERFLUOROTRIDECANOIC ACID (PFTRIA)	2.8	U					2.8	U		2.8	U		
PERFLUOROUNDECANOIC ACID (PFUNA)	1.4	U					1.4	U		1.4	U		

PROJ_NO: 08005-WE21 SDG: 320-44773-1 FRACTION: PFAS MEDIA: WATER	NSAMPLE	TP-PFC-036-TPE-D			TP-PFC-036-TPI			TP-PFC-036-TPI-DL		
	LAB_ID	320-44773-4			320-44773-1			320-44773-1		
	SAMP_DATE	10/31/2018			10/31/2018			10/31/2018		
	QC_TYPE	FD			NM			NM		
	UNITS	NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF	TP-PFC-036-TPE								
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	
PENTADECAFLUOROOCANOIC ACID (PFOA)	11						2000			
PERFLUOROBUTANESULFONIC ACID (PFBS)	5.6			57						
PERFLUOROBUTANOIC ACID (PFBA)	130			77						
PERFLUORODECANESULFONIC ACID (PFDS)	1.5 U			1.4 U						
PERFLUORODECANOIC ACID (PFDA)	0.97 U			0.81 J	P					
PERFLUORODODECANOIC ACID (PFDOA)	1.5 UJ	E		1.4 UJ	E					
PERFLUOROHEPTANESULFONIC ACID (PFHPS)	0.97 U			6.6						
PERFLUOROHEPTANOIC ACID (PFHPA)	2.5			68						
PERFLUOROHEXANESULFONIC ACID (PFHXS)	0.97 U	A					440			
PERFLUOROHEXANOIC ACID (PFHXA)	190						380			
PERFLUORONONANOIC ACID (PFNA)	1.5 U			2.7						
PERFLUOROOCOTANE SULFONAMIDE (FOSA)	2.9 U			2.8 U						
PERFLUOROOCOTANESULFONIC ACID (PFOS)	2.9 U	A		330						
PERFLUOROPENTANOIC ACID (PFPEA)	280			210						
PERFLUOROTETRADECANOIC ACID (PFTEA)	2.9 U			2.8 U						
PERFLUOROTRIDECANOIC ACID (PFTRIA)	2.9 U			2.8 U						
PERFLUOROUNDECANOIC ACID (PFUNA)	1.5 U			1.4 U						

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-TPI Lab Sample ID: 320-44773-1
 Matrix: Water Lab File ID: 2018.12.05LLA_017.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 08:45
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 267 (mL) Date Analyzed: 12/05/2018 17:23
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	77		1.9	1.4	0.55
2706-90-3	Perfluoropentanoic acid (PFPeA)	210		1.9	0.94	0.40
307-24-4	Perfluorohexanoic acid (PFHxA)	390	E	1.9	0.94	0.44
375-85-9	Perfluoroheptanoic acid (PFHpA)	68		1.9	1.4	0.57
335-67-1	Perfluorooctanoic acid (PFOA)	1400	E M	1.9	1.4	0.51
375-95-1	Perfluorononanoic acid (PFNA)	2.7		1.9	1.4	0.49
335-76-2	Perfluorodecanoic acid (PFDA)	0.81	J	1.9	0.94	0.45
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.4	U	1.9	1.4	0.67
307-55-1	Perfluorododecanoic acid (PFDoA)	1.4	U Q	1.9	1.4	0.49
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.8	U	3.7	2.8	0.71
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.8	U M	3.7	2.8	0.78
375-73-5	Perfluorobutanesulfonic acid (PFBS)	57		1.9	0.94	0.43
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	400	E	1.9	0.94	0.36
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	6.6		1.9	0.94	0.35
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	330	B	3.7	2.8	1.0
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.4	U	1.9	1.4	0.52
754-91-6	Perfluorooctanesulfonamide (FOSA)	2.8	U	3.7	2.8	1.2

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-TPI Lab Sample ID: 320-44773-1
 Matrix: Water Lab File ID: 2018.12.05LLA_017.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 08:45
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 267(mL) Date Analyzed: 12/05/2018 17:23
 Con. Extract Vol.: 10.00(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	105		50-150
STL00992	13C4 PFBA	98		50-150
STL01893	13C5 PFPeA	103		50-150
STL00993	13C2 PFHxA	99		50-150
STL01892	13C4 PFHpA	104		50-150
STL00990	13C4 PFOA	88		50-150
STL00995	13C5 PFNA	111		50-150
STL00996	13C2 PFDA	114		50-150
STL00997	13C2 PFUnA	113		50-150
STL00998	13C2 PFDoA	104		50-150
STL00994	18O2 PFHxS	102		50-150
STL02116	13C2 PFTeDA	96		50-150
STL00991	13C4 PFOS	113		50-150
STL02337	13C3 PFBS	103		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-TPI RE Lab Sample ID: 320-44773-1 RE
 Matrix: Water Lab File ID: 2018.12.14LLE_010.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 08:45
 Extraction Method: 3535 Date Extracted: 12/12/2018 07:23
 Sample wt/vol: 266.8 (mL) Date Analyzed: 12/14/2018 18:39
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: Acquity ID: 2.1 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265165 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
307-55-1	Perfluorododecanoic acid (PFDoA)	1.4	U H	1.9	1.4	0.49

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00998	13C2 PFDoA	109		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-TPI DL Lab Sample ID: 320-44773-1 DL
 Matrix: Water Lab File ID: 2018.12.12LLA_021.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 08:45
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 267 (mL) Date Analyzed: 12/12/2018 11:27
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 10
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 264745 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	77	D M	19	14	5.5
2706-90-3	Perfluoropentanoic acid (PFPeA)	220	D	19	9.4	4.0
307-24-4	Perfluorohexanoic acid (PFHxA)	380	D	19	9.4	4.4
375-85-9	Perfluoroheptanoic acid (PFHpA)	72	D	19	14	5.7
335-67-1	Perfluorooctanoic acid (PFOA)	2000	D M	19	14	5.1
375-95-1	Perfluorononanoic acid (PFNA)	14	U	19	14	4.9
335-76-2	Perfluorodecanoic acid (PFDA)	9.4	U	19	9.4	4.5
2058-94-8	Perfluoroundecanoic acid (PFUnA)	14	U	19	14	6.7
307-55-1	Perfluorododecanoic acid (PFDoA)	14	U Q	19	14	4.9
72629-94-8	Perfluorotridecanoic acid (PFTriA)	28	U	37	28	7.1
376-06-7	Perfluorotetradecanoic acid (PFTeA)	28	U	37	28	7.8
375-73-5	Perfluorobutanesulfonic acid (PFBS)	56	D	19	9.4	4.3
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	440	D	19	9.4	3.6
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	8.1	J D	19	9.4	3.5
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	330	D B	37	28	10
335-77-3	Perfluorodecanesulfonic acid (PFDS)	14	U	19	14	5.2
754-91-6	Perfluorooctanesulfonamide (FOSA)	28	U M	37	28	12

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-TPI DL Lab Sample ID: 320-44773-1 DL
 Matrix: Water Lab File ID: 2018.12.12LLA_021.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 08:45
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 267(mL) Date Analyzed: 12/12/2018 11:27
 Con. Extract Vol.: 10.00(mL) Dilution Factor: 10
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 264745 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	83		50-150
STL00992	13C4 PFBA	93		50-150
STL01893	13C5 PFPeA	90		50-150
STL00993	13C2 PFHxA	93		50-150
STL01892	13C4 PFHpA	87		50-150
STL00990	13C4 PFOA	84		50-150
STL00995	13C5 PFNA	93		50-150
STL00996	13C2 PFDA	89		50-150
STL00997	13C2 PFUnA	94		50-150
STL00998	13C2 PFDoA	90		50-150
STL00994	18O2 PFHxS	88		50-150
STL02116	13C2 PFTeDA	78		50-150
STL00991	13C4 PFOS	92		50-150
STL02337	13C3 PFBS	85		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-MID-CARBON Lab Sample ID: 320-44773-2
 Matrix: Water Lab File ID: 2018.12.05LLA_018.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 08:50
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 265.4 (mL) Date Analyzed: 12/05/2018 17:30
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	120		1.9	1.4	0.56
2706-90-3	Perfluoropentanoic acid (PFPeA)	290		1.9	0.94	0.41
307-24-4	Perfluorohexanoic acid (PFHxA)	300		1.9	0.94	0.44
375-85-9	Perfluoroheptanoic acid (PFHpA)	11		1.9	1.4	0.57
335-67-1	Perfluorooctanoic acid (PFOA)	89	M	1.9	1.4	0.51
375-95-1	Perfluorononanoic acid (PFNA)	1.4	U	1.9	1.4	0.49
335-76-2	Perfluorodecanoic acid (PFDA)	0.94	U	1.9	0.94	0.45
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.4	U	1.9	1.4	0.68
307-55-1	Perfluorododecanoic acid (PFDoA)	1.4	U Q	1.9	1.4	0.49
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.8	U	3.8	2.8	0.72
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.8	U	3.8	2.8	0.78
375-73-5	Perfluorobutanesulfonic acid (PFBS)	15		1.9	0.94	0.43
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	6.4		1.9	0.94	0.36
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.94	U	1.9	0.94	0.35
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.8	J B	3.8	2.8	1.0
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.4	U	1.9	1.4	0.53
754-91-6	Perfluorooctanesulfonamide (FOSA)	2.8	U M	3.8	2.8	1.2

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-MID-CARBON Lab Sample ID: 320-44773-2
 Matrix: Water Lab File ID: 2018.12.05LLA_018.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 08:50
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 265.4 (mL) Date Analyzed: 12/05/2018 17:30
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	86		50-150
STL00992	13C4 PFBA	86		50-150
STL01893	13C5 PFPeA	86		50-150
STL00993	13C2 PFHxA	87		50-150
STL01892	13C4 PFHpA	89		50-150
STL00990	13C4 PFOA	91		50-150
STL00995	13C5 PFNA	93		50-150
STL00996	13C2 PFDA	89		50-150
STL00997	13C2 PFUnA	95		50-150
STL00998	13C2 PFDoA	87		50-150
STL00994	18O2 PFHxS	91		50-150
STL02116	13C2 PFTeDA	79		50-150
STL00991	13C4 PFOS	92		50-150
STL02337	13C3 PFBS	83		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-MID-CARBON RE Lab Sample ID: 320-44773-2 RE
 Matrix: Water Lab File ID: 2018.12.14LLE_011.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 08:50
 Extraction Method: 3535 Date Extracted: 12/12/2018 07:23
 Sample wt/vol: 270.7(mL) Date Analyzed: 12/14/2018 18:47
 Con. Extract Vol.: 10.00(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265165 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
307-55-1	<i>Perfluorododecanoic acid (PFDoA)</i>	1.4	U H	1.8	1.4	0.48
1763-23-1	<i>Perfluorooctanesulfonic acid (PFOS)</i>	1.5	J H	3.7	2.8	1.0

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00998	13C2 PFDoA	85		50-150
STL00991	13C4 PFOS	97		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-TPE Lab Sample ID: 320-44773-3
 Matrix: Water Lab File ID: 2018.12.05LLA_019.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 08:55
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 266(mL) Date Analyzed: 12/05/2018 17:38
 Con. Extract Vol.: 10.00(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	120		1.9	1.4	0.55
2706-90-3	Perfluoropentanoic acid (PFPeA)	280		1.9	0.94	0.40
307-24-4	Perfluorohexanoic acid (PFHxA)	180		1.9	0.94	0.44
375-85-9	Perfluoroheptanoic acid (PFHpA)	2.3		1.9	1.4	0.57
335-67-1	Perfluorooctanoic acid (PFOA)	10	M	1.9	1.4	0.51
375-95-1	Perfluorononanoic acid (PFNA)	1.4	U	1.9	1.4	0.49
335-76-2	Perfluorodecanoic acid (PFDA)	0.94	U	1.9	0.94	0.45
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.4	U	1.9	1.4	0.68
307-55-1	Perfluorododecanoic acid (PFDoA)	1.4	U Q	1.9	1.4	0.49
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.8	U	3.8	2.8	0.71
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.8	U	3.8	2.8	0.78
375-73-5	Perfluorobutanesulfonic acid (PFBS)	5.6		1.9	0.94	0.43
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.79	J M	1.9	0.94	0.36
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.94	U	1.9	0.94	0.35
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.7	J B	3.8	2.8	1.0
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.4	U	1.9	1.4	0.53
754-91-6	Perfluorooctanesulfonamide (FOSA)	2.8	U M	3.8	2.8	1.2

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-TPE Lab Sample ID: 320-44773-3
 Matrix: Water Lab File ID: 2018.12.05LLA_019.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 08:55
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 266(mL) Date Analyzed: 12/05/2018 17:38
 Con. Extract Vol.: 10.00(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	90		50-150
STL00992	13C4 PFBA	88		50-150
STL01893	13C5 PFPeA	86		50-150
STL00993	13C2 PFHxA	90		50-150
STL01892	13C4 PFHpA	93		50-150
STL00990	13C4 PFOA	93		50-150
STL00995	13C5 PFNA	96		50-150
STL00996	13C2 PFDA	95		50-150
STL00997	13C2 PFUnA	100		50-150
STL00998	13C2 PFDoA	94		50-150
STL00994	18O2 PFHxS	92		50-150
STL02116	13C2 PFTeDA	87		50-150
STL00991	13C4 PFOS	94		50-150
STL02337	13C3 PFBS	81		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-TPE RE Lab Sample ID: 320-44773-3 RE
 Matrix: Water Lab File ID: 2018.12.14LLE_012.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 08:55
 Extraction Method: 3535 Date Extracted: 12/12/2018 07:23
 Sample wt/vol: 264.8 (mL) Date Analyzed: 12/14/2018 18:55
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: Acquity ID: 2.1 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265165 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
307-55-1	<i>Perfluorododecanoic acid (PFDoA)</i>	1.4	U H	1.9	1.4	0.49
1763-23-1	<i>Perfluorooctanesulfonic acid (PFOS)</i>	2.8	U H M	3.8	2.8	1.0

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00998	13C2 PFDoA	85		50-150
STL00991	13C4 PFOS	95		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-TPE-D Lab Sample ID: 320-44773-4
 Matrix: Water Lab File ID: 2018.12.05LLA_020.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 00:00
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 256.7 (mL) Date Analyzed: 12/05/2018 17:45
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	130		1.9	1.5	0.57
2706-90-3	Perfluoropentanoic acid (PFPeA)	280		1.9	0.97	0.42
307-24-4	Perfluorohexanoic acid (PFHxA)	190		1.9	0.97	0.46
375-85-9	Perfluoroheptanoic acid (PFHpA)	2.5		1.9	1.5	0.59
335-67-1	Perfluorooctanoic acid (PFOA)	11	M	1.9	1.5	0.53
375-95-1	Perfluorononanoic acid (PFNA)	1.5	U	1.9	1.5	0.51
335-76-2	Perfluorodecanoic acid (PFDA)	0.97	U	1.9	0.97	0.47
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.5	U	1.9	1.5	0.70
307-55-1	Perfluorododecanoic acid (PFDoA)	1.5	U Q	1.9	1.5	0.51
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.9	U	3.9	2.9	0.74
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.9	U	3.9	2.9	0.81
375-73-5	Perfluorobutanesulfonic acid (PFBS)	5.6		1.9	0.97	0.45
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.92	J	1.9	0.97	0.37
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.97	U	1.9	0.97	0.36
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.9	J B	3.9	2.9	1.1
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.5	U	1.9	1.5	0.55
754-91-6	Perfluorooctanesulfonamide (FOSA)	2.9	U M	3.9	2.9	1.3

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-TPE-D Lab Sample ID: 320-44773-4
 Matrix: Water Lab File ID: 2018.12.05LLA_020.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 00:00
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 256.7(mL) Date Analyzed: 12/05/2018 17:45
 Con. Extract Vol.: 10.00(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	83		50-150
STL00992	13C4 PFBA	82		50-150
STL01893	13C5 PFPeA	82		50-150
STL00993	13C2 PFHxA	83		50-150
STL01892	13C4 PFHpA	90		50-150
STL00990	13C4 PFOA	90		50-150
STL00995	13C5 PFNA	88		50-150
STL00996	13C2 PFDA	88		50-150
STL00997	13C2 PFUnA	92		50-150
STL00998	13C2 PFDoA	84		50-150
STL00994	18O2 PFHxS	86		50-150
STL02116	13C2 PFTeDA	75		50-150
STL00991	13C4 PFOS	93		50-150
STL02337	13C3 PFBS	80		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: TP-PFC-036-TPE-D RE Lab Sample ID: 320-44773-4 RE
 Matrix: Water Lab File ID: 2018.12.14LLE_013.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 00:00
 Extraction Method: 3535 Date Extracted: 12/12/2018 07:23
 Sample wt/vol: 254.2 (mL) Date Analyzed: 12/14/2018 19:02
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: Acquity ID: 2.1 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265165 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
307-55-1	<i>Perfluorododecanoic acid (PFDoA)</i>	1.5	U H	2.0	1.5	0.51
1763-23-1	<i>Perfluorooctanesulfonic acid (PFOS)</i>	3.0	U H M	3.9	3.0	1.1

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00998	13C2 PFDoA	82		50-150
STL00991	13C4 PFOS	94		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-08-103118 Lab Sample ID: 320-44773-5
 Matrix: Water Lab File ID: 2018.12.05LLA_021.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 10:00
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 255.5 (mL) Date Analyzed: 12/05/2018 17:53
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	12		2.0	1.5	0.58
2706-90-3	Perfluoropentanoic acid (PFPeA)	35		2.0	0.98	0.42
307-24-4	Perfluorohexanoic acid (PFHxA)	63		2.0	0.98	0.46
375-85-9	Perfluoroheptanoic acid (PFHpA)	13		2.0	1.5	0.60
335-67-1	Perfluorooctanoic acid (PFOA)	220	M	2.0	1.5	0.53
375-95-1	Perfluorononanoic acid (PFNA)	0.55	J	2.0	1.5	0.51
335-76-2	Perfluorodecanoic acid (PFDA)	0.98	U	2.0	0.98	0.47
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.5	U M	2.0	1.5	0.70
307-55-1	Perfluorododecanoic acid (PFDoA)	1.5	U Q	2.0	1.5	0.51
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.9	U	3.9	2.9	0.74
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.9	U	3.9	2.9	0.81
375-73-5	Perfluorobutanesulfonic acid (PFBS)	23		2.0	0.98	0.45
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	120		2.0	0.98	0.37
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	1.7	J	2.0	0.98	0.36
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	48	B	3.9	2.9	1.1
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.5	U	2.0	1.5	0.55
754-91-6	Perfluorooctanesulfonamide (FOSA)	2.9	U	3.9	2.9	1.3

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-08-103118 Lab Sample ID: 320-44773-5
 Matrix: Water Lab File ID: 2018.12.05LLA_021.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 10:00
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 255.5 (mL) Date Analyzed: 12/05/2018 17:53
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	80		50-150
STL00992	13C4 PFBA	81		50-150
STL01893	13C5 PFPeA	84		50-150
STL00993	13C2 PFHxA	85		50-150
STL01892	13C4 PFHpA	84		50-150
STL00990	13C4 PFOA	85		50-150
STL00995	13C5 PFNA	89		50-150
STL00996	13C2 PFDA	83		50-150
STL00997	13C2 PFUnA	80		50-150
STL00998	13C2 PFDoA	64		50-150
STL00994	18O2 PFHxS	88		50-150
STL02116	13C2 PFTeDA	52		50-150
STL00991	13C4 PFOS	87		50-150
STL02337	13C3 PFBS	84		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
SDG No.: _____
Client Sample ID: NASB-GWETS-EW-08-103118 Lab Sample ID: 320-44773-5 RE
RE
Matrix: Water Lab File ID: 2018.12.14LLE_014.d
Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 10:00
Extraction Method: 3535 Date Extracted: 12/12/2018 07:23
Sample wt/vol: 265.9(mL) Date Analyzed: 12/14/2018 19:10
Con. Extract Vol.: 10.00(mL) Dilution Factor: 1
Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 265165 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
<i>307-55-1</i>	<i>Perfluorododecanoic acid (PFDoA)</i>	<i>1.4</i>	<i>U H M</i>	<i>1.9</i>	<i>1.4</i>	<i>0.49</i>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00998	13C2 PFDoA	91		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-01-103118 Lab Sample ID: 320-44773-6
 Matrix: Water Lab File ID: 2018.12.05LLA_022.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 10:15
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 272.4 (mL) Date Analyzed: 12/05/2018 18:00
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	8.6		1.8	1.4	0.54
2706-90-3	Perfluoropentanoic acid (PFPeA)	25	M	1.8	0.92	0.39
307-24-4	Perfluorohexanoic acid (PFHxA)	47		1.8	0.92	0.43
375-85-9	Perfluoroheptanoic acid (PFHpA)	10		1.8	1.4	0.56
335-67-1	Perfluorooctanoic acid (PFOA)	100	M	1.8	1.4	0.50
375-95-1	Perfluorononanoic acid (PFNA)	1.4	U	1.8	1.4	0.48
335-76-2	Perfluorodecanoic acid (PFDA)	0.92	U	1.8	0.92	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.4	U	1.8	1.4	0.66
307-55-1	Perfluorododecanoic acid (PFDoA)	1.4	U M Q	1.8	1.4	0.48
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.8	U	3.7	2.8	0.70
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.8	U	3.7	2.8	0.76
375-73-5	Perfluorobutanesulfonic acid (PFBS)	39		1.8	0.92	0.42
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	180		1.8	0.92	0.35
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	5.4		1.8	0.92	0.34
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	100	B	3.7	2.8	1.0
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.4	U	1.8	1.4	0.51
754-91-6	Perfluorooctanesulfonamide (FOSA)	3.5	J	3.7	2.8	1.2

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-01-103118 Lab Sample ID: 320-44773-6
 Matrix: Water Lab File ID: 2018.12.05LLA_022.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 10:15
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 272.4 (mL) Date Analyzed: 12/05/2018 18:00
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	89		50-150
STL00992	13C4 PFBA	85		50-150
STL01893	13C5 PFPeA	85		50-150
STL00993	13C2 PFHxA	92		50-150
STL01892	13C4 PFHpA	85		50-150
STL00990	13C4 PFOA	90		50-150
STL00995	13C5 PFNA	93		50-150
STL00996	13C2 PFDA	93		50-150
STL00997	13C2 PFUnA	100		50-150
STL00998	13C2 PFDoA	86		50-150
STL00994	18O2 PFHxS	90		50-150
STL02116	13C2 PFTeDA	78		50-150
STL00991	13C4 PFOS	93		50-150
STL02337	13C3 PFBS	84		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>320-44773-1</u>
SDG No.: _____	
Client Sample ID: <u>NASB-GWETS-EW-01-103118 RE</u>	Lab Sample ID: <u>320-44773-6 RE</u>
Matrix: <u>Water</u>	Lab File ID: <u>2018.12.14LLE_015.d</u>
Analysis Method: <u>EPA 537 (Mod)</u>	Date Collected: <u>10/31/2018 10:15</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>12/12/2018 07:23</u>
Sample wt/vol: <u>268.7(mL)</u>	Date Analyzed: <u>12/14/2018 19:17</u>
Con. Extract Vol.: <u>10.00(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>20(uL)</u>	GC Column: <u>Acquity</u> ID: <u>2.1(mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>265165</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
<i>307-55-1</i>	<i>Perfluorododecanoic acid (PFDoA)</i>	<i>1.4</i>	<i>U H</i>	<i>1.9</i>	<i>1.4</i>	<i>0.48</i>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00998	13C2 PFDoA	87		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-09-103118 Lab Sample ID: 320-44773-7
 Matrix: Water Lab File ID: 2018.12.05LLA_023.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 10:30
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 267.5 (mL) Date Analyzed: 12/05/2018 18:08
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	77		1.9	1.4	0.55
2706-90-3	Perfluoropentanoic acid (PFPeA)	220		1.9	0.93	0.40
307-24-4	Perfluorohexanoic acid (PFHxA)	330		1.9	0.93	0.44
375-85-9	Perfluoroheptanoic acid (PFHpA)	49		1.9	1.4	0.57
335-67-1	Perfluorooctanoic acid (PFOA)	880	E M	1.9	1.4	0.50
375-95-1	Perfluorononanoic acid (PFNA)	3.1		1.9	1.4	0.49
335-76-2	Perfluorodecanoic acid (PFDA)	1.6	J	1.9	0.93	0.45
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.4	U M	1.9	1.4	0.67
307-55-1	Perfluorododecanoic acid (PFDoA)	1.4	U Q	1.9	1.4	0.49
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.8	U	3.7	2.8	0.71
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.8	U	3.7	2.8	0.78
375-73-5	Perfluorobutanesulfonic acid (PFBS)	40		1.9	0.93	0.43
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	300		1.9	0.93	0.36
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	8.5		1.9	0.93	0.35
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	560	E B	3.7	2.8	1.0
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.4	U	1.9	1.4	0.52
754-91-6	Perfluorooctanesulfonamide (FOSA)	1.5	J	3.7	2.8	1.2

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-09-103118 Lab Sample ID: 320-44773-7
 Matrix: Water Lab File ID: 2018.12.05LLA_023.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 10:30
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 267.5 (mL) Date Analyzed: 12/05/2018 18:08
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	89		50-150
STL00992	13C4 PFBA	84		50-150
STL01893	13C5 PFPeA	86		50-150
STL00993	13C2 PFHxA	93		50-150
STL01892	13C4 PFHpA	92		50-150
STL00990	13C4 PFOA	84		50-150
STL00995	13C5 PFNA	90		50-150
STL00996	13C2 PFDA	92		50-150
STL00997	13C2 PFUnA	99		50-150
STL00998	13C2 PFDoA	87		50-150
STL00994	18O2 PFHxS	90		50-150
STL02116	13C2 PFTeDA	71		50-150
STL00991	13C4 PFOS	94		50-150
STL02337	13C3 PFBS	90		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>320-44773-1</u>
SDG No.: _____	Client Sample ID: <u>NASB-GWETS-EW-09-103118</u>
Matrix: <u>Water</u>	Lab Sample ID: <u>320-44773-7 RE</u>
Analysis Method: <u>EPA 537 (Mod)</u>	Lab File ID: <u>2018.12.14LLE_016.d</u>
Extraction Method: <u>3535</u>	Date Collected: <u>10/31/2018 10:30</u>
Sample wt/vol: <u>265.5 (mL)</u>	Date Extracted: <u>12/12/2018 07:23</u>
Con. Extract Vol.: <u>10.00 (mL)</u>	Date Analyzed: <u>12/14/2018 19:25</u>
Injection Volume: <u>20 (uL)</u>	Dilution Factor: <u>1</u>
% Moisture: _____	GC Column: <u>Acquity</u> ID: <u>2.1 (mm)</u>
Analysis Batch No.: <u>265165</u>	GPC Cleanup: (Y/N) <u>N</u>
	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
<u>307-55-1</u>	<u>Perfluorododecanoic acid (PFDoA)</u>	<u>1.4</u>	<u>U H M</u>	<u>1.9</u>	<u>1.4</u>	<u>0.49</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
<u>STL00998</u>	<u>13C2 PFDoA</u>	<u>90</u>		<u>50-150</u>

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
SDG No.: _____
Client Sample ID: NASB-GWETS-EW-09-103118 Lab Sample ID: 320-44773-7 DL
DL
Matrix: Water Lab File ID: 2018.12.14LLB_007.d
Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 10:30
Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
Sample wt/vol: 267.5 (mL) Date Analyzed: 12/14/2018 21:17
Con. Extract Vol.: 10.00 (mL) Dilution Factor: 5
Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 265418 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	<i>Perfluorobutanoic acid (PFBA)</i>	77	D	9.3	7.0	2.8
2706-90-3	<i>Perfluoropentanoic acid (PFPeA)</i>	210	D	9.3	4.7	2.0
307-24-4	<i>Perfluorohexanoic acid (PFHxA)</i>	340	D	9.3	4.7	2.2
375-85-9	<i>Perfluoroheptanoic acid (PFHpA)</i>	52	D	9.3	7.0	2.9
335-67-1	<i>Perfluorooctanoic acid (PFOA)</i>	1000	D M	9.3	7.0	2.5
375-95-1	<i>Perfluorononanoic acid (PFNA)</i>	3.1	J D	9.3	7.0	2.4
335-76-2	<i>Perfluorodecanoic acid (PFDA)</i>	4.7	U	9.3	4.7	2.2
2058-94-8	<i>Perfluoroundecanoic acid (PFUnA)</i>	7.0	U	9.3	7.0	3.4
307-55-1	<i>Perfluorododecanoic acid (PFDoA)</i>	7.0	U Q	9.3	7.0	2.4
72629-94-8	<i>Perfluorotridecanoic acid (PFTriA)</i>	14	U	19	14	3.6
376-06-7	<i>Perfluorotetradecanoic acid (PFTeA)</i>	14	U	19	14	3.9
375-73-5	<i>Perfluorobutanesulfonic acid (PFBS)</i>	42	D	9.3	4.7	2.1
355-46-4	<i>Perfluorohexanesulfonic acid (PFHxS)</i>	330	D	9.3	4.7	1.8
375-92-8	<i>Perfluoroheptanesulfonic Acid (PFHpS)</i>	9.2	J D	9.3	4.7	1.7
1763-23-1	<i>Perfluorooctanesulfonic acid (PFOS)</i>	570	D B	19	14	5.1
335-77-3	<i>Perfluorodecanesulfonic acid (PFDS)</i>	7.0	U	9.3	7.0	2.6
754-91-6	<i>Perfluorooctanesulfonamide (FOSA)</i>	14	U	19	14	6.1

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>320-44773-1</u>
SDG No.: _____	
Client Sample ID: <u>NASB-GWETS-EW-09-103118 DL</u>	Lab Sample ID: <u>320-44773-7 DL</u>
Matrix: <u>Water</u>	Lab File ID: <u>2018.12.14LLB_007.d</u>
Analysis Method: <u>EPA 537 (Mod)</u>	Date Collected: <u>10/31/2018 10:30</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>11/13/2018 08:37</u>
Sample wt/vol: <u>267.5(mL)</u>	Date Analyzed: <u>12/14/2018 21:17</u>
Con. Extract Vol.: <u>10.00(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>20(uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3(mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>265418</u>	Units: <u>ng/L</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	76		50-150
STL00992	13C4 PFBA	89		50-150
STL01893	13C5 PFPeA	85		50-150
STL00993	13C2 PFHxA	87		50-150
STL01892	13C4 PFHpA	87		50-150
STL00990	13C4 PFOA	87		50-150
STL00995	13C5 PFNA	86		50-150
STL00996	13C2 PFDA	82		50-150
STL00997	13C2 PFUnA	88		50-150
STL00998	13C2 PFDoA	81		50-150
STL00994	18O2 PFHxS	82		50-150
STL02116	13C2 PFTeDA	69		50-150
STL00991	13C4 PFOS	87		50-150
STL02337	13C3 PFBS	79		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-02-103118 Lab Sample ID: 320-44773-8
 Matrix: Water Lab File ID: 2018.12.05LLA_025.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 10:50
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 239.3 (mL) Date Analyzed: 12/05/2018 18:23
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	35		2.1	1.6	0.62
2706-90-3	Perfluoropentanoic acid (PFPeA)	100		2.1	1.0	0.45
307-24-4	Perfluorohexanoic acid (PFHxA)	160		2.1	1.0	0.49
375-85-9	Perfluoroheptanoic acid (PFHpA)	32		2.1	1.6	0.64
335-67-1	Perfluorooctanoic acid (PFOA)	630	E M	2.1	1.6	0.56
375-95-1	Perfluorononanoic acid (PFNA)	2.2		2.1	1.6	0.54
335-76-2	Perfluorodecanoic acid (PFDA)	0.74	J	2.1	1.0	0.50
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.6	U	2.1	1.6	0.75
307-55-1	Perfluorododecanoic acid (PFDoA)	1.6	U Q	2.1	1.6	0.54
72629-94-8	Perfluorotridecanoic acid (PFTriA)	3.1	U	4.2	3.1	0.79
376-06-7	Perfluorotetradecanoic acid (PFTeA)	3.1	U	4.2	3.1	0.87
375-73-5	Perfluorobutanesulfonic acid (PFBS)	23		2.1	1.0	0.48
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	230		2.1	1.0	0.40
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	4.7		2.1	1.0	0.39
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	330	B	4.2	3.1	1.1
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.6	U	2.1	1.6	0.59
754-91-6	Perfluorooctanesulfonamide (FOSA)	3.1	U M	4.2	3.1	1.4

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-02-103118 Lab Sample ID: 320-44773-8
 Matrix: Water Lab File ID: 2018.12.05LLA_025.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 10:50
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 239.3 (mL) Date Analyzed: 12/05/2018 18:23
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	93		50-150
STL00992	13C4 PFBA	87		50-150
STL01893	13C5 PFPeA	94		50-150
STL00993	13C2 PFHxA	99		50-150
STL01892	13C4 PFHpA	91		50-150
STL00990	13C4 PFOA	88		50-150
STL00995	13C5 PFNA	99		50-150
STL00996	13C2 PFDA	95		50-150
STL00997	13C2 PFUnA	105		50-150
STL00998	13C2 PFDoA	100		50-150
STL00994	18O2 PFHxS	94		50-150
STL02116	13C2 PFTeDA	87		50-150
STL00991	13C4 PFOS	98		50-150
STL02337	13C3 PFBS	88		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-02-103118 Lab Sample ID: 320-44773-8 RE
 RE
 Matrix: Water Lab File ID: 2018.12.14LLE_018.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 10:50
 Extraction Method: 3535 Date Extracted: 12/12/2018 07:23
 Sample wt/vol: 261.1(mL) Date Analyzed: 12/14/2018 19:40
 Con. Extract Vol.: 10.00(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265165 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
<i>307-55-1</i>	<i>Perfluorododecanoic acid (PFDoA)</i>	<i>1.4</i>	<i>U H</i>	<i>1.9</i>	<i>1.4</i>	<i>0.50</i>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00998	13C2 PFDoA	82		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento

Job No.: 320-44773-1

SDG No.: _____

Client Sample ID: NASB-GWETS-EW-02-103118
DL

Lab Sample ID: 320-44773-8 DL

Matrix: Water

Lab File ID: 2018.12.12LLA_023.d

Analysis Method: EPA 537 (Mod)

Date Collected: 10/31/2018 10:50

Extraction Method: 3535

Date Extracted: 11/13/2018 08:37

Sample wt/vol: 239.3(mL)

Date Analyzed: 12/12/2018 11:42

Con. Extract Vol.: 10.00(mL)

Dilution Factor: 2

Injection Volume: 20(uL)

GC Column: GeminiC18 3x100 ID: 3(mm)

% Moisture: _____

GPC Cleanup: (Y/N) N

Analysis Batch No.: 264745

Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	36	D	4.2	3.1	1.2
2706-90-3	Perfluoropentanoic acid (PFPeA)	100	D	4.2	2.1	0.90
307-24-4	Perfluorohexanoic acid (PFHxA)	170	D	4.2	2.1	0.98
375-85-9	Perfluoroheptanoic acid (PFHpA)	27	D	4.2	3.1	1.3
335-67-1	Perfluorooctanoic acid (PFOA)	630	D M	4.2	3.1	1.1
375-95-1	Perfluorononanoic acid (PFNA)	2.5	J D	4.2	3.1	1.1
335-76-2	Perfluorodecanoic acid (PFDA)	2.1	U	4.2	2.1	1.0
2058-94-8	Perfluoroundecanoic acid (PFUnA)	3.1	U	4.2	3.1	1.5
307-55-1	Perfluorododecanoic acid (PFDoA)	3.1	U Q	4.2	3.1	1.1
72629-94-8	Perfluorotridecanoic acid (PFTriA)	6.3	U	8.4	6.3	1.6
376-06-7	Perfluorotetradecanoic acid (PFTeA)	6.3	U	8.4	6.3	1.7
375-73-5	Perfluorobutanesulfonic acid (PFBS)	21	D	4.2	2.1	0.96
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	240	D	4.2	2.1	0.79
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	4.9	D	4.2	2.1	0.77
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	340	D B	8.4	6.3	2.3
335-77-3	Perfluorodecanesulfonic acid (PFDS)	3.1	U	4.2	3.1	1.2
754-91-6	Perfluorooctanesulfonamide (FOSA)	6.3	U	8.4	6.3	2.7

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>320-44773-1</u>
SDG No.: _____	
Client Sample ID: <u>NASB-GWETS-EW-02-103118</u> DL	Lab Sample ID: <u>320-44773-8 DL</u>
Matrix: <u>Water</u>	Lab File ID: <u>2018.12.12LLA_023.d</u>
Analysis Method: <u>EPA 537 (Mod)</u>	Date Collected: <u>10/31/2018 10:50</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>11/13/2018 08:37</u>
Sample wt/vol: <u>239.3(mL)</u>	Date Analyzed: <u>12/12/2018 11:42</u>
Con. Extract Vol.: <u>10.00(mL)</u>	Dilution Factor: <u>2</u>
Injection Volume: <u>20(uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3(mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>264745</u>	Units: <u>ng/L</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	88		50-150
STL00992	13C4 PFBA	98		50-150
STL01893	13C5 PFPeA	92		50-150
STL00993	13C2 PFHxA	96		50-150
STL01892	13C4 PFHpA	95		50-150
STL00990	13C4 PFOA	96		50-150
STL00995	13C5 PFNA	94		50-150
STL00996	13C2 PFDA	92		50-150
STL00997	13C2 PFUnA	93		50-150
STL00998	13C2 PFDoA	87		50-150
STL00994	18O2 PFHxS	99		50-150
STL02116	13C2 PFTeDA	85		50-150
STL00991	13C4 PFOS	95		50-150
STL02337	13C3 PFBS	89		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-04-103118 Lab Sample ID: 320-44773-9
 Matrix: Water Lab File ID: 2018.12.05LLA_026.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 11:10
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 260.3 (mL) Date Analyzed: 12/05/2018 18:30
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	76		1.9	1.4	0.57
2706-90-3	Perfluoropentanoic acid (PFPeA)	210		1.9	0.96	0.41
307-24-4	Perfluorohexanoic acid (PFHxA)	350		1.9	0.96	0.45
375-85-9	Perfluoroheptanoic acid (PFHpA)	62		1.9	1.4	0.59
335-67-1	Perfluorooctanoic acid (PFOA)	1100	E M	1.9	1.4	0.52
375-95-1	Perfluorononanoic acid (PFNA)	2.9		1.9	1.4	0.50
335-76-2	Perfluorodecanoic acid (PFDA)	0.90	J	1.9	0.96	0.46
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.4	U	1.9	1.4	0.69
307-55-1	Perfluorododecanoic acid (PFDoA)	1.4	U Q	1.9	1.4	0.50
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.9	U	3.8	2.9	0.73
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.9	U	3.8	2.9	0.80
375-73-5	Perfluorobutanesulfonic acid (PFBS)	45		1.9	0.96	0.44
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	310		1.9	0.96	0.36
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	5.4		1.9	0.96	0.36
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	280	B	3.8	2.9	1.1
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.4	U	1.9	1.4	0.54
754-91-6	Perfluorooctanesulfonamide (FOSA)	2.9	U	3.8	2.9	1.2

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-04-103118 Lab Sample ID: 320-44773-9
 Matrix: Water Lab File ID: 2018.12.05LLA_026.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 11:10
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 260.3(mL) Date Analyzed: 12/05/2018 18:30
 Con. Extract Vol.: 10.00(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	100		50-150
STL00992	13C4 PFBA	99		50-150
STL01893	13C5 PFPeA	102		50-150
STL00993	13C2 PFHxA	105		50-150
STL01892	13C4 PFHpA	104		50-150
STL00990	13C4 PFOA	91		50-150
STL00995	13C5 PFNA	104		50-150
STL00996	13C2 PFDA	105		50-150
STL00997	13C2 PFUnA	113		50-150
STL00998	13C2 PFDoA	103		50-150
STL00994	18O2 PFHxS	99		50-150
STL02116	13C2 PFTeDA	96		50-150
STL00991	13C4 PFOS	109		50-150
STL02337	13C3 PFBS	104		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>320-44773-1</u>
SDG No.: _____	
Client Sample ID: <u>NASB-GWETS-EW-04-103118 RE</u>	Lab Sample ID: <u>320-44773-9 RE</u>
Matrix: <u>Water</u>	Lab File ID: <u>2018.12.14LLE_019.d</u>
Analysis Method: <u>EPA 537 (Mod)</u>	Date Collected: <u>10/31/2018 11:10</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>12/12/2018 07:23</u>
Sample wt/vol: <u>245.5(mL)</u>	Date Analyzed: <u>12/14/2018 19:47</u>
Con. Extract Vol.: <u>10.00(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>20(uL)</u>	GC Column: <u>Acquity</u> ID: <u>2.1(mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>265165</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
307-55-1	Perfluorododecanoic acid (PFDoA)	1.5	<i>U H</i>	2.0	1.5	0.53

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00998	13C2 PFDoA	97		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>320-44773-1</u>
SDG No.: _____	
Client Sample ID: <u>NASB-GWETS-EW-04-103118</u> <u>DL</u>	Lab Sample ID: <u>320-44773-9 DL</u>
Matrix: <u>Water</u>	Lab File ID: <u>2018.12.12LLA_024.d</u>
Analysis Method: <u>EPA 537 (Mod)</u>	Date Collected: <u>10/31/2018 11:10</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>11/13/2018 08:37</u>
Sample wt/vol: <u>260.3(mL)</u>	Date Analyzed: <u>12/12/2018 11:49</u>
Con. Extract Vol.: <u>10.00(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>20(uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3(mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>264745</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	<i>Perfluorobutanoic acid (PFBA)</i>	76	D	19	14	5.7
2706-90-3	<i>Perfluoropentanoic acid (PFPeA)</i>	220	D	19	9.6	4.1
307-24-4	<i>Perfluorohexanoic acid (PFHxA)</i>	360	D	19	9.6	4.5
375-85-9	<i>Perfluoroheptanoic acid (PFHpA)</i>	59	D	19	14	5.9
335-67-1	<i>Perfluorooctanoic acid (PFOA)</i>	1500	D M	19	14	5.2
375-95-1	<i>Perfluorononanoic acid (PFNA)</i>	14	U	19	14	5.0
335-76-2	<i>Perfluorodecanoic acid (PFDA)</i>	9.6	U	19	9.6	4.6
2058-94-8	<i>Perfluoroundecanoic acid (PFUnA)</i>	14	U	19	14	6.9
307-55-1	<i>Perfluorododecanoic acid (PFDoA)</i>	14	U Q	19	14	5.0
72629-94-8	<i>Perfluorotridecanoic acid (PFTriA)</i>	29	U	38	29	7.3
376-06-7	<i>Perfluorotetradecanoic acid (PFTeA)</i>	29	U	38	29	8.0
375-73-5	<i>Perfluorobutanesulfonic acid (PFBS)</i>	45	D	19	9.6	4.4
355-46-4	<i>Perfluorohexanesulfonic acid (PFHxS)</i>	330	D	19	9.6	3.6
375-92-8	<i>Perfluoroheptanesulfonic Acid (PFHpS)</i>	7.0	J D	19	9.6	3.6
1763-23-1	<i>Perfluorooctanesulfonic acid (PFOS)</i>	290	D B	38	29	11
335-77-3	<i>Perfluorodecanesulfonic acid (PFDS)</i>	14	U	19	14	5.4
754-91-6	<i>Perfluorooctanesulfonamide (FOSA)</i>	29	U	38	29	12

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
SDG No.: _____
Client Sample ID: NASB-GWETS-EW-04-103118 Lab Sample ID: 320-44773-9 DL
DL
Matrix: Water Lab File ID: 2018.12.12LLA_024.d
Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 11:10
Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
Sample wt/vol: 260.3(mL) Date Analyzed: 12/12/2018 11:49
Con. Extract Vol.: 10.00(mL) Dilution Factor: 10
Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 264745 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	77		50-150
STL00992	13C4 PFBA	97		50-150
STL01893	13C5 PFPeA	86		50-150
STL00993	13C2 PFHxA	94		50-150
STL01892	13C4 PFHpA	88		50-150
STL00990	13C4 PFOA	88		50-150
STL00995	13C5 PFNA	91		50-150
STL00996	13C2 PFDA	80		50-150
STL00997	13C2 PFUnA	87		50-150
STL00998	13C2 PFDoA	84		50-150
STL00994	18O2 PFHxS	89		50-150
STL02116	13C2 PFTeDA	83		50-150
STL00991	13C4 PFOS	87		50-150
STL02337	13C3 PFBS	87		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-05-103118 Lab Sample ID: 320-44773-10
 Matrix: Water Lab File ID: 2018.12.05LLA_027.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 11:35
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 270 (mL) Date Analyzed: 12/05/2018 18:38
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	160		1.9	1.4	0.55
2706-90-3	Perfluoropentanoic acid (PFPeA)	450	E	1.9	0.93	0.40
307-24-4	Perfluorohexanoic acid (PFHxA)	760	E	1.9	0.93	0.44
375-85-9	Perfluoroheptanoic acid (PFHpA)	180		1.9	1.4	0.56
335-67-1	Perfluorooctanoic acid (PFOA)	3200	E M	1.9	1.4	0.50
375-95-1	Perfluorononanoic acid (PFNA)	3.5		1.9	1.4	0.48
335-76-2	Perfluorodecanoic acid (PFDA)	0.99	J	1.9	0.93	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.4	U M	1.9	1.4	0.67
307-55-1	Perfluorododecanoic acid (PFDoA)	1.4	U Q	1.9	1.4	0.48
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.8	U	3.7	2.8	0.70
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.8	U	3.7	2.8	0.77
375-73-5	Perfluorobutanesulfonic acid (PFBS)	150		1.9	0.93	0.43
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	820	E	1.9	0.93	0.35
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	11		1.9	0.93	0.34
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	380	E B	3.7	2.8	1.0
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.4	U	1.9	1.4	0.52
754-91-6	Perfluorooctanesulfonamide (FOSA)	2.8	U M	3.7	2.8	1.2

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-05-103118 Lab Sample ID: 320-44773-10
 Matrix: Water Lab File ID: 2018.12.05LLA_027.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 11:35
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 270 (mL) Date Analyzed: 12/05/2018 18:38
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	132		50-150
STL00992	13C4 PFBA	118		50-150
STL01893	13C5 PFPeA	128		50-150
STL00993	13C2 PFHxA	122		50-150
STL01892	13C4 PFHpA	122		50-150
STL00990	13C4 PFOA	88		50-150
STL00995	13C5 PFNA	143		50-150
STL00996	13C2 PFDA	132		50-150
STL00997	13C2 PFUnA	147		50-150
STL00998	13C2 PFDoA	138		50-150
STL00994	18O2 PFHxS	122		50-150
STL02116	13C2 PFTeDA	128		50-150
STL00991	13C4 PFOS	139		50-150
STL02337	13C3 PFBS	129		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: NASB-GWETS-EW-05-103118 Lab Sample ID: 320-44773-10 RE
 RE
 Matrix: Water Lab File ID: 2018.12.14LLE_020.d
 Analysis Method: EPA 537 (Mod) Date Collected: 10/31/2018 11:35
 Extraction Method: 3535 Date Extracted: 12/12/2018 07:23
 Sample wt/vol: 232 (mL) Date Analyzed: 12/14/2018 19:55
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: Acquity ID: 2.1 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265165 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
<i>307-55-1</i>	<i>Perfluorododecanoic acid (PFDoA)</i>	<i>1.6</i>	<i>U H</i>	<i>2.2</i>	<i>1.6</i>	<i>0.56</i>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00998	13C2 PFDoA	126		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>320-44773-1</u>
SDG No.: _____	
Client Sample ID: <u>NASB-GWETS-EW-05-103118</u> <u>DL</u>	Lab Sample ID: <u>320-44773-10 DL</u>
Matrix: <u>Water</u>	Lab File ID: <u>2018.12.12LLA_025.d</u>
Analysis Method: <u>EPA 537 (Mod)</u>	Date Collected: <u>10/31/2018 11:35</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>11/13/2018 08:37</u>
Sample wt/vol: <u>270 (mL)</u>	Date Analyzed: <u>12/12/2018 11:57</u>
Con. Extract Vol.: <u>10.00 (mL)</u>	Dilution Factor: <u>20</u>
Injection Volume: <u>20 (uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>264745</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	<i>Perfluorobutanoic acid (PFBA)</i>	170	D	37	28	11
2706-90-3	<i>Perfluoropentanoic acid (PFPeA)</i>	510	D	37	19	8.0
307-24-4	<i>Perfluorohexanoic acid (PFHxA)</i>	860	D	37	19	8.7
375-85-9	<i>Perfluoroheptanoic acid (PFHpA)</i>	170	D	37	28	11
335-67-1	<i>Perfluorooctanoic acid (PFOA)</i>	5900	D M	37	28	10
375-95-1	<i>Perfluorononanoic acid (PFNA)</i>	28	U	37	28	9.6
335-76-2	<i>Perfluorodecanoic acid (PFDA)</i>	19	U	37	19	8.9
2058-94-8	<i>Perfluoroundecanoic acid (PFUnA)</i>	28	U	37	28	13
307-55-1	<i>Perfluorododecanoic acid (PFDoA)</i>	28	U Q	37	28	9.6
72629-94-8	<i>Perfluorotridecanoic acid (PFTriA)</i>	56	U	74	56	14
376-06-7	<i>Perfluorotetradecanoic acid (PFTeA)</i>	56	U	74	56	15
375-73-5	<i>Perfluorobutanesulfonic acid (PFBS)</i>	150	D	37	19	8.5
355-46-4	<i>Perfluorohexanesulfonic acid (PFHxS)</i>	1000	D	37	19	7.0
375-92-8	<i>Perfluoroheptanesulfonic Acid (PFHpS)</i>	17	J D	37	19	6.9
1763-23-1	<i>Perfluorooctanesulfonic acid (PFOS)</i>	360	D B	74	56	20
335-77-3	<i>Perfluorodecanesulfonic acid (PFDS)</i>	28	U	37	28	10
754-91-6	<i>Perfluorooctanesulfonamide (FOSA)</i>	56	U	74	56	24

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>320-44773-1</u>
SDG No.: _____	
Client Sample ID: <u>NASB-GWETS-EW-05-103118</u> DL	Lab Sample ID: <u>320-44773-10 DL</u>
Matrix: <u>Water</u>	Lab File ID: <u>2018.12.12LLA_025.d</u>
Analysis Method: <u>EPA 537 (Mod)</u>	Date Collected: <u>10/31/2018 11:35</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>11/13/2018 08:37</u>
Sample wt/vol: <u>270 (mL)</u>	Date Analyzed: <u>12/12/2018 11:57</u>
Con. Extract Vol.: <u>10.00 (mL)</u>	Dilution Factor: <u>20</u>
Injection Volume: <u>20 (uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>264745</u>	Units: <u>ng/L</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	88		50-150
STL00992	13C4 PFBA	97		50-150
STL01893	13C5 PFPeA	88		50-150
STL00993	13C2 PFHxA	96		50-150
STL01892	13C4 PFHpA	91		50-150
STL00990	13C4 PFOA	87		50-150
STL00995	13C5 PFNA	98		50-150
STL00996	13C2 PFDA	90		50-150
STL00997	13C2 PFUnA	93		50-150
STL00998	13C2 PFDoA	87		50-150
STL00994	18O2 PFHxS	94		50-150
STL02116	13C2 PFTeDA	88		50-150
STL00991	13C4 PFOS	97		50-150
STL02337	13C3 PFBS	83		50-150

APPENDIX C

SUPPORT DOCUMENTATION

NAS BRUNSWICK
SDG 320-44773-1

SAMPLE IDENTIFICATION

NASB-GWETS-EW-05-103118

COMPOUND

PENTADECAFLUOROOCTANOIC ACID (PFOA)

COMPOUND AREA	16798807
INTERNAL STANDARD AMOUNT (ng/ml)	0.25
DILUTION FACTOR	20
INTERNAL STANDARD AREA	234701
AVERAGE RRF	1.1233
SAMPLE VOLUME (ml)	270
VOLUME EXTRACT (ml)	10
ml to L	1000
INJECTION VOLUME (µL)	2
CONCENTRATION =	5899.89 ng/L

$16798807 \times 0.25\text{ng/ml} \times 1000\text{ml} \times 10\text{ml} \times 20 / (234701 \times 1.1233 \times 270\text{ml} \times 1\text{L} \times 2)$

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\chromna\Sacramento\ChromData\A8_N\20181212-69054.b\2018.12.12LLA_025.d
 Lims ID: 320-44773-B-10-A
 Client ID: NASB-GWETS-EW-05-103118
 Sample Type: Client
 Inject. Date: 12-Dec-2018 11:57:16 ALS Bottle#: 17 Worklist Smp#: 9
 Injection Vol: 20.0 ul Dil. Factor: 20.0000
 Sample Info: 320-44773-b-10-a 20X
 Misc. Info.: Plate: 1 Rack: 3
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Method: \\chromna\Sacramento\ChromData\A8_N\20181212-69054.b\A8_N.m
 Limit Group: LC PFC_QSM5-1 ICAL
 Last Update: 14-Dec-2018 09:36:47 Calib Date: 08-Dec-2018 06:01:52
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromna\Sacramento\ChromData\A8_N\20181207-68828.b\2018.12.07ICAL_011.d
 Column 1 : Det: EXP1
 Process Host: CTX0321
 First Level Reviewer: mongkols Date: 14-Dec-2018 09:36:47
 Ratio Calibration: None

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA	217.00 > 172.00	1.763	1.769	-0.006	0.547	398424	0.1211	96.9	256	
2 Perfluorobutanoic acid	212.90 > 169.00	1.763	1.770	-0.007	1.000	663888	0.2281		73.1	
D 3 13C5 PFPeA	267.90 > 223.00	2.074	2.084	-0.010	0.644	238486	0.1105	88.4	302	
4 Perfluoropentanoic acid	262.90 > 219.00	2.084	2.084	0.0	1.005	1434184	0.6863		108	
D 47 13C3 PFBS	301.90 > 80.00	2.116	2.115	0.001	0.657	324386	0.0970	83.5	28028	
5 Perfluorobutanesulfonic acid	298.90 > 80.00	2.116	2.116	0.0	1.000	565047	0.2051	Target=2.49	580	
	298.90 > 99.00	2.105	2.116	-0.011	0.995	246511		2.29(1.25-3.74)	218	
D 7 13C2 PFHxA	315.00 > 270.00	2.432	2.442	-0.010	0.755	271552	0.1204	96.3	443	
6 Perfluorohexanoic acid	313.00 > 269.00	2.432	2.442	-0.010	1.000	2555592	1.16	Target=10.07	518	
	313.00 > 119.00	2.432	2.442	-0.010	1.000	214861		11.89(5.03-15.10)	597	
10 Perfluoroheptanoic acid	363.00 > 319.00	2.820	2.825	-0.005	1.000	518813	0.2326	Target=2.27	63.3	
	363.00 > 169.00	2.820	2.825	-0.005	1.000	200808		2.58(1.13-3.40)	68.4	
D 9 13C4 PFHpA	367.00 > 322.00	2.820	2.826	-0.006	0.876	247086	0.1142	91.3	647	
8 Perfluorohexanesulfonic acid	399.00 > 80.00	2.830	2.835	-0.005	1.000	3593839	1.38	Target=3.00	5780	
	399.00 > 99.00	2.830	2.835	-0.005	1.000	1148880		3.13(1.50-4.49)	2279	
D 11 18O2 PFHxS	403.00 > 84.00	2.830	2.835	-0.005	0.878	290953	0.1116	94.4	3195	

Ratio Calibration: None

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.221	3.217	0.004	0.894	50293	0.0236	Target=3.88		22.4	
449.00 > 99.00	3.213	3.217	-0.004	0.892	15013		3.35(1.94-5.82)		37.7	
* 62 13C2 PFOA										
415.00 > 370.00	3.221	3.226	-0.005		273370	0.1250			515	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.221	3.226	-0.005	1.000	16798807	7.96	Target=1.68		2011	M
413.00 > 169.00	3.221	3.226	-0.005	1.000	10425147		1.61(0.84-2.52)		2552	M
D 14 13C4 PFOA										
417.00 > 372.00	3.221	3.226	-0.005	1.000	234701	0.1089		87.1	675	
17 Perfluorooctanesulfonic acid										
499.00 > 80.00	3.603	3.599	0.004	1.000	913915	0.4913	Target=4.62		1134	
499.00 > 99.00	3.595	3.599	-0.004	0.998	205625		4.44(2.31-6.93)		592	
D 18 13C4 PFOS										
503.00 > 80.00	3.603	3.599	0.004	1.118	198381	0.1154		96.6	1333	
20 Perfluorononanoic acid										
463.00 > 419.00	3.611	3.615	-0.004	1.000	9721	0.005275	Target=3.79		8.3	
463.00 > 169.00	3.611	3.615	-0.004	1.000	1864		5.22(1.90-5.69)		8.8	
D 19 13C5 PFNA										
468.00 > 423.00	3.611	3.615	-0.004	1.121	218821	0.1220		97.6	814	
D 21 13C8 FOSA										
506.00 > 78.00	3.970	3.968	0.002	1.232	281054	0.1098		87.9	1947	
D 23 13C2 PFDA										
515.00 > 470.00	3.970	3.968	0.002	1.232	181736	0.1128		90.3	898	
D 30 13C2 PFUnA										
565.00 > 520.00	4.292	4.294	-0.002	1.332	148121	0.1161		92.9	779	
D 36 13C2 PFDoA										
615.00 > 570.00	4.577	4.575	0.002	1.421	143128	0.1089		87.1	753	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.083	5.080	0.003	1.578	167416	0.1097		87.7	852	

QC Flag Legend

Review Flags

M - Manually Integrated

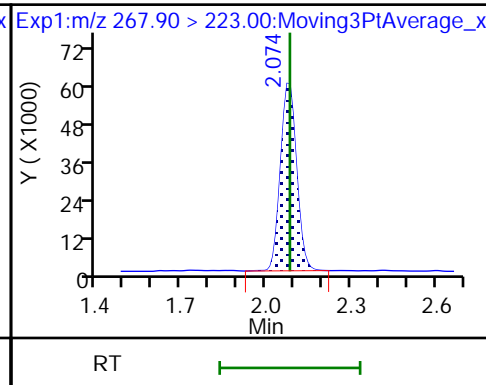
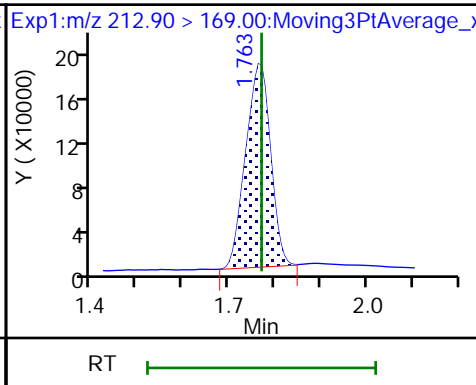
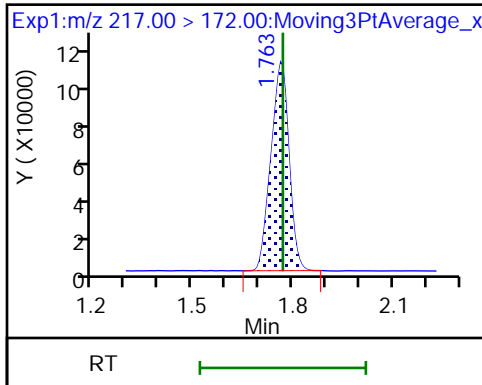
TestAmerica Sacramento

Data File: \\chromna\Sacramento\ChromData\A8_N\20181212-69054.b\2018.12.12LLA_025.d
Injection Date: 12-Dec-2018 11:57:16 Instrument ID: A8_N
Lims ID: 320-44773-B-10-A Lab Sample ID: 320-44773-10
Client ID: NASB-GWETS-EW-05-103118
Operator ID: SACINSTLCMS01 ALS Bottle#: 17 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 20.0000
Method: A8_N Limit Group: LC PFC_QSM5-1 ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid

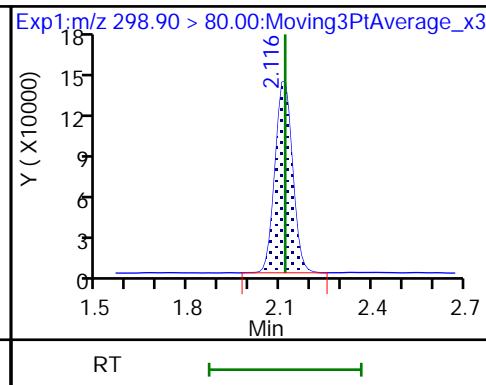
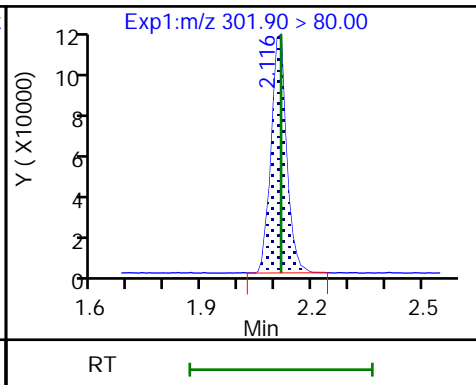
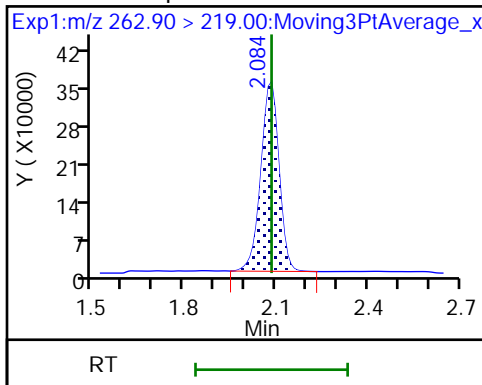
D 3 13C5 PFPeA



4 Perfluoropentanoic acid

D 47 13C3 PFBS

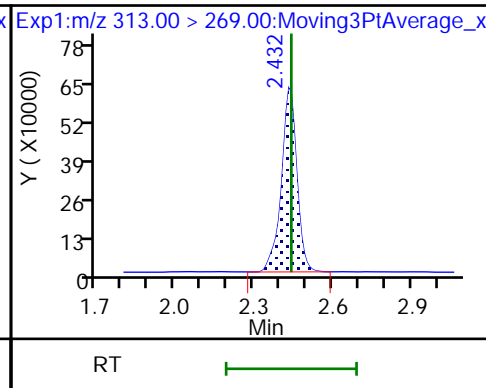
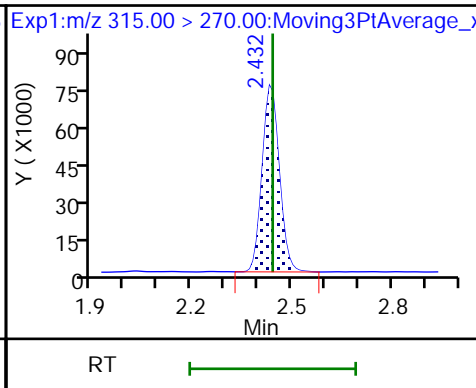
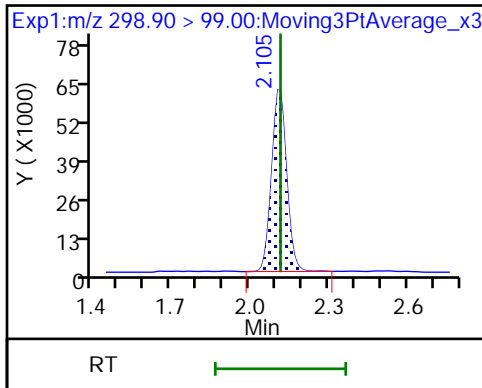
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 7 13C2 PFHxA

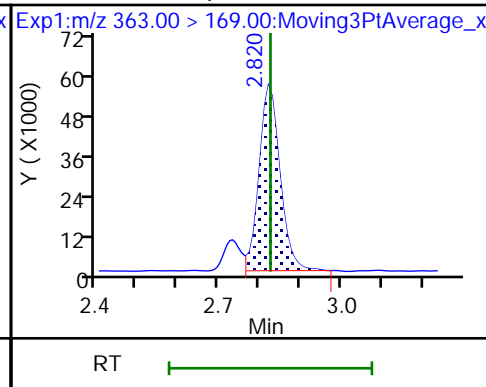
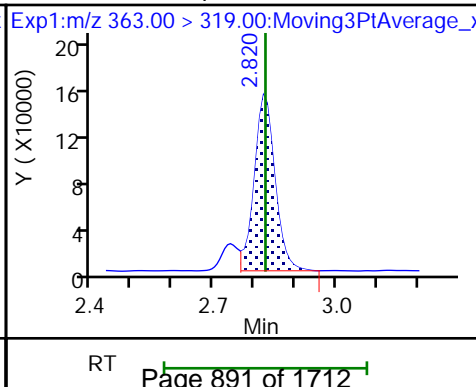
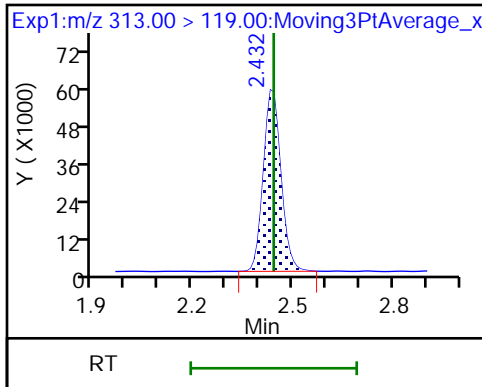
6 Perfluorohexanoic acid



6 Perfluorohexanoic acid

10 Perfluoroheptanoic acid

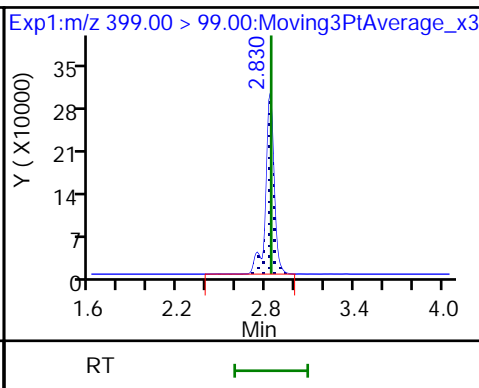
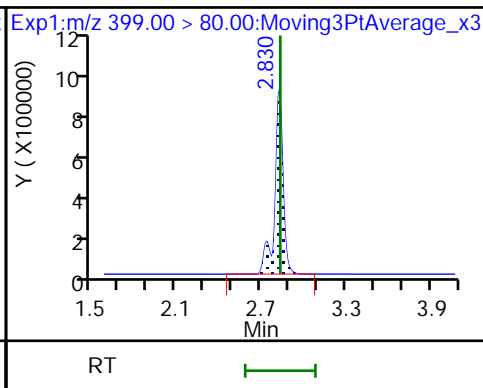
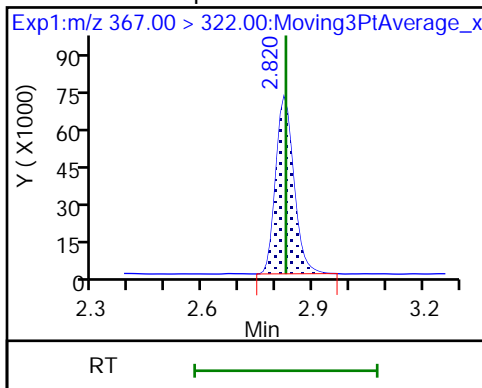
10 Perfluoroheptanoic acid



D 9 13C4 PFHpA

8 Perfluorohexanesulfonic acid

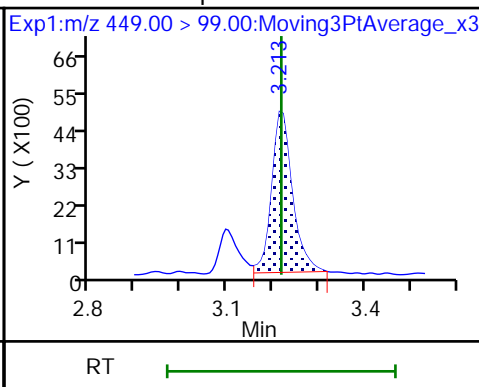
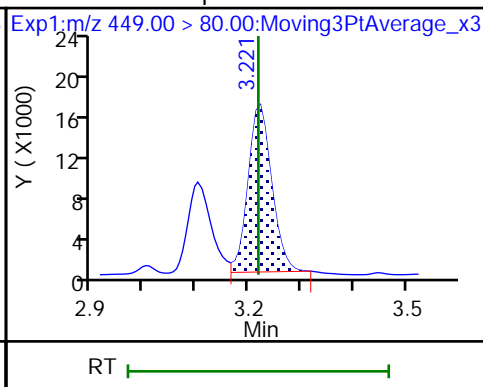
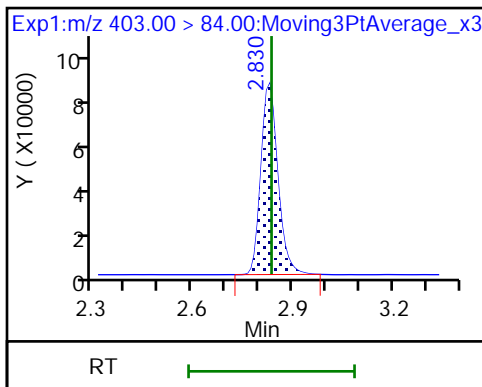
8 Perfluorohexanesulfonic acid



D 11 18O2 PFHxS

16 Perfluoroheptanesulfonic acid

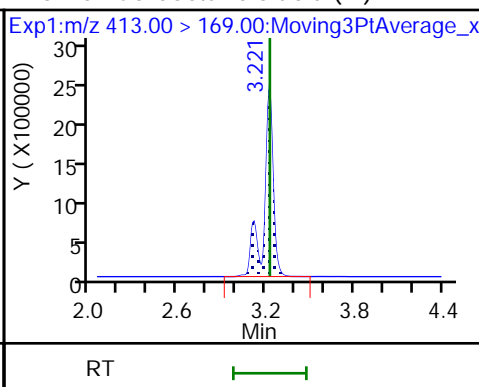
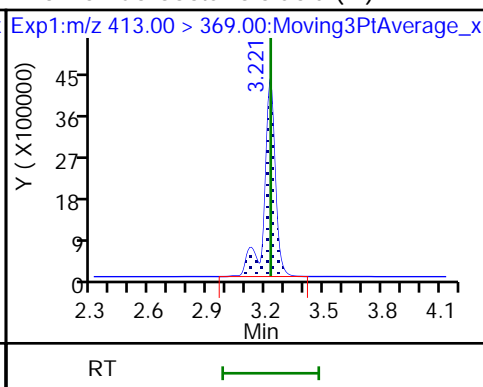
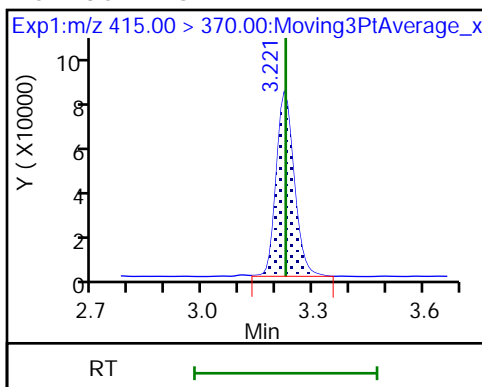
16 Perfluoroheptanesulfonic acid



* 62 13C2 PFOA

15 Perfluorooctanoic acid (M)

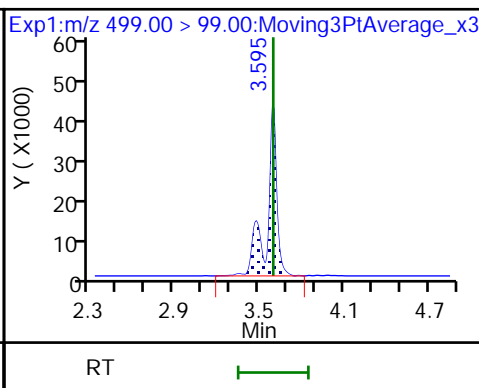
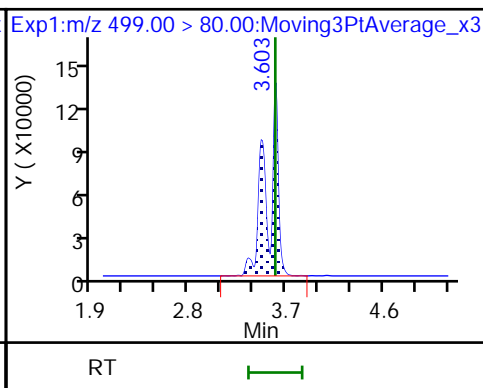
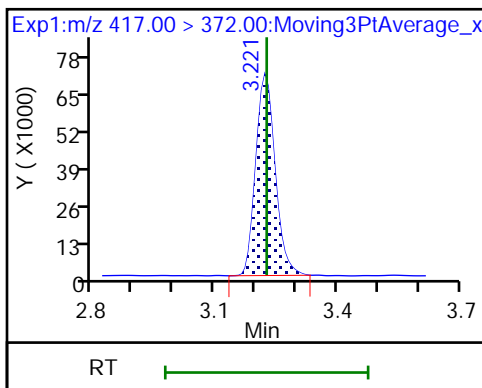
15 Perfluorooctanoic acid (M)



D 14 13C4 PFOA

17 Perfluorooctanesulfonic acid

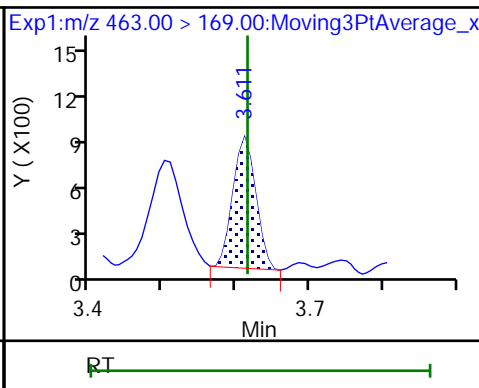
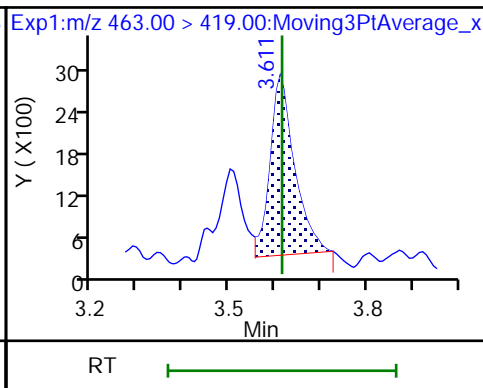
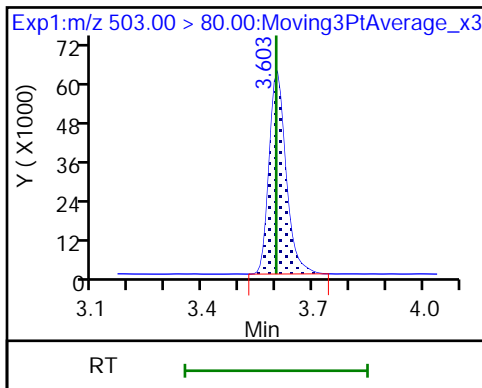
17 Perfluorooctanesulfonic acid



D 18 13C4 PFOS

20 Perfluorononanoic acid

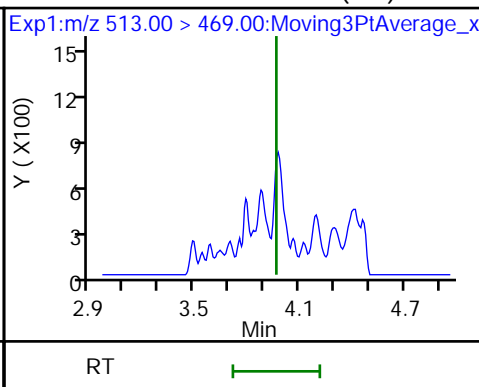
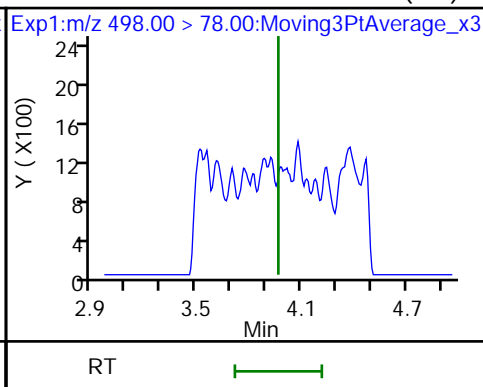
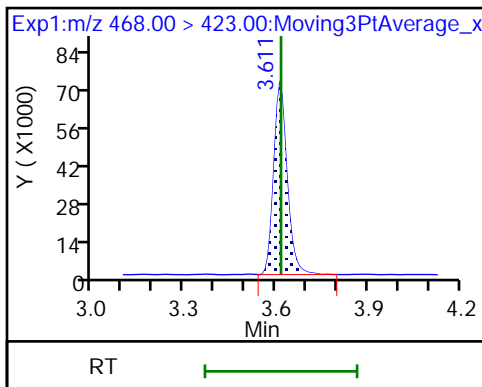
20 Perfluorononanoic acid



D 19 13C5 PFNA

22 Perfluorooctanesulfonamide (ND)

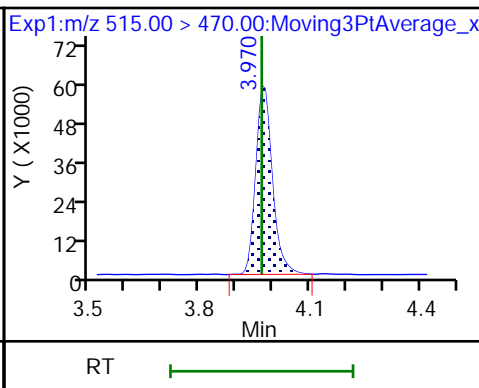
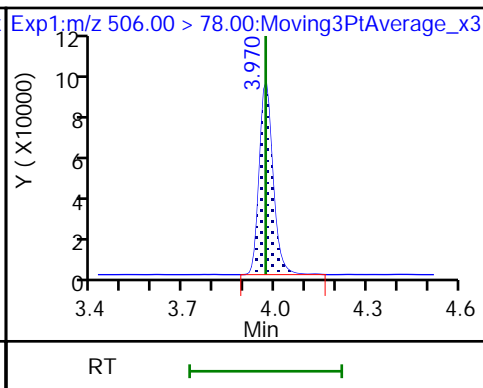
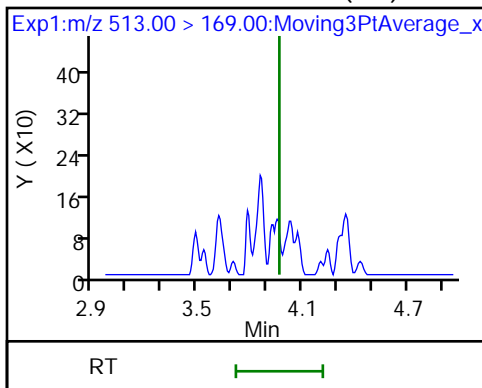
24 Perfluorodecanoic acid (ND)



24 Perfluorodecanoic acid (ND)

D 21 13C8 FOSA

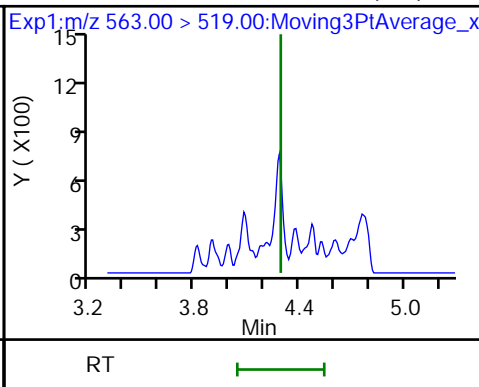
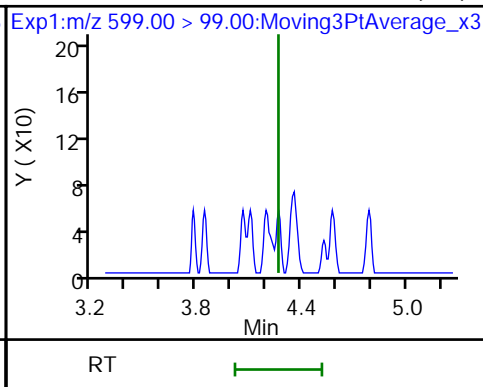
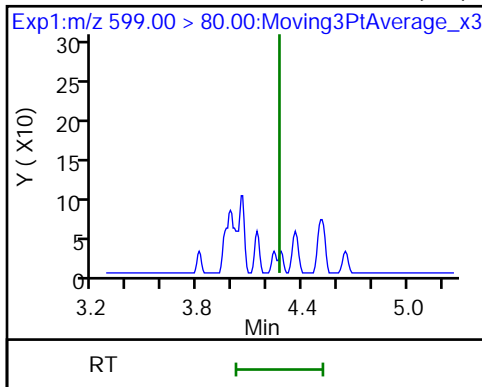
D 23 13C2 PFDA



29 Perfluorodecanesulfonic acid (ND)

29 Perfluorodecanesulfonic acid (ND)

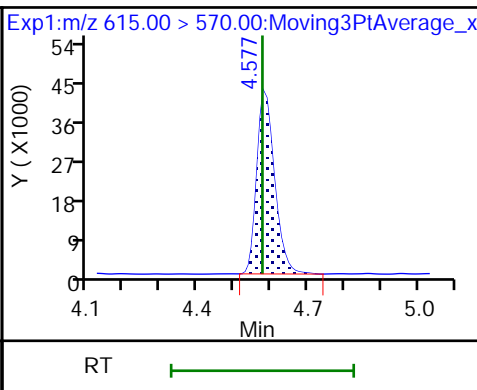
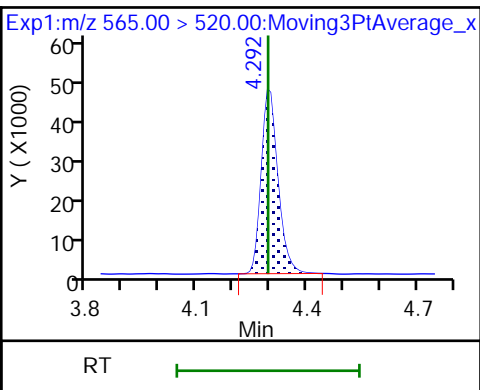
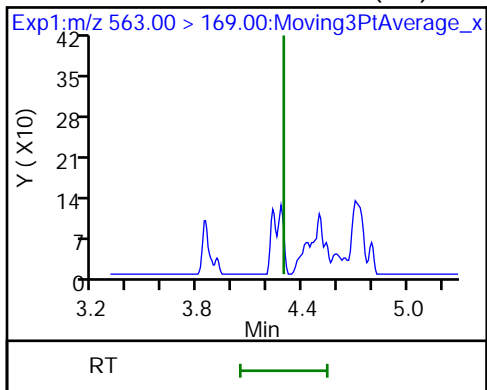
31 Perfluoroundecanoic acid (ND)



31 Perfluoroundecanoic acid (ND)

D 30 13C2 PFUnA

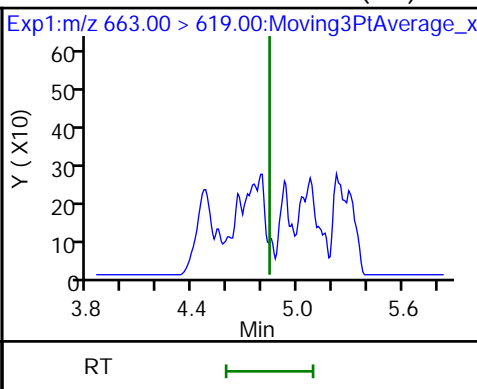
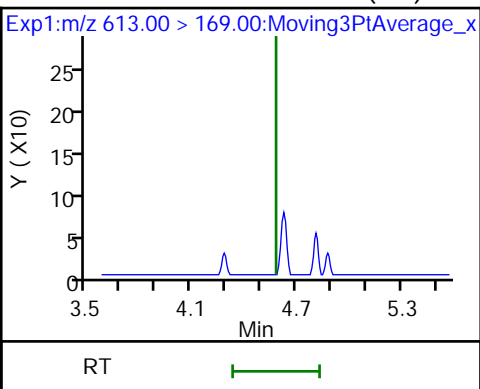
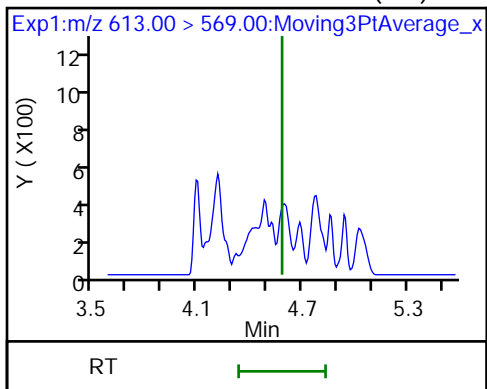
D 36 13C2 PFDoA



37 Perfluorododecanoic acid (ND)

37 Perfluorododecanoic acid (ND)

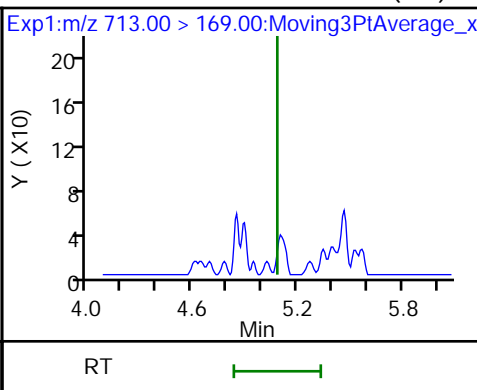
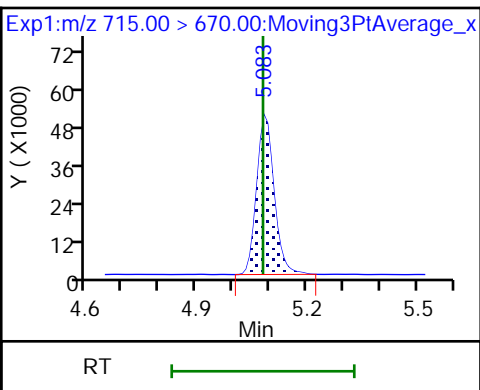
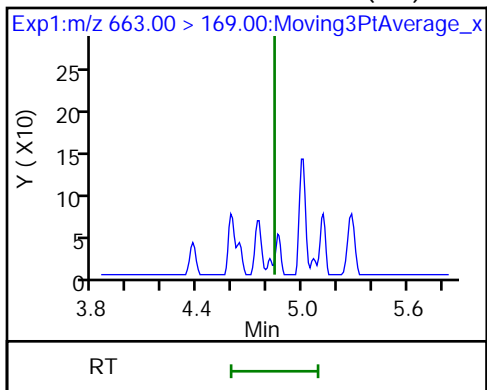
41 Perfluorotridecanoic acid (ND)



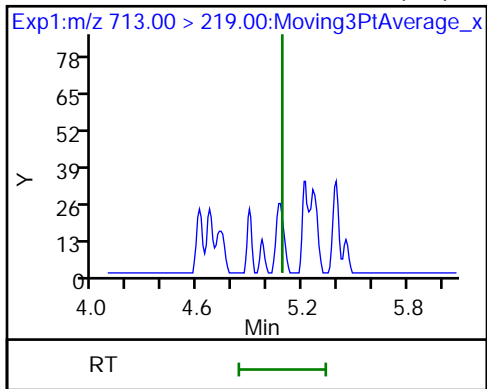
41 Perfluorotridecanoic acid (ND)

D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid (ND)



42 Perfluorotetradecanoic acid (ND)



TestAmerica Sacramento

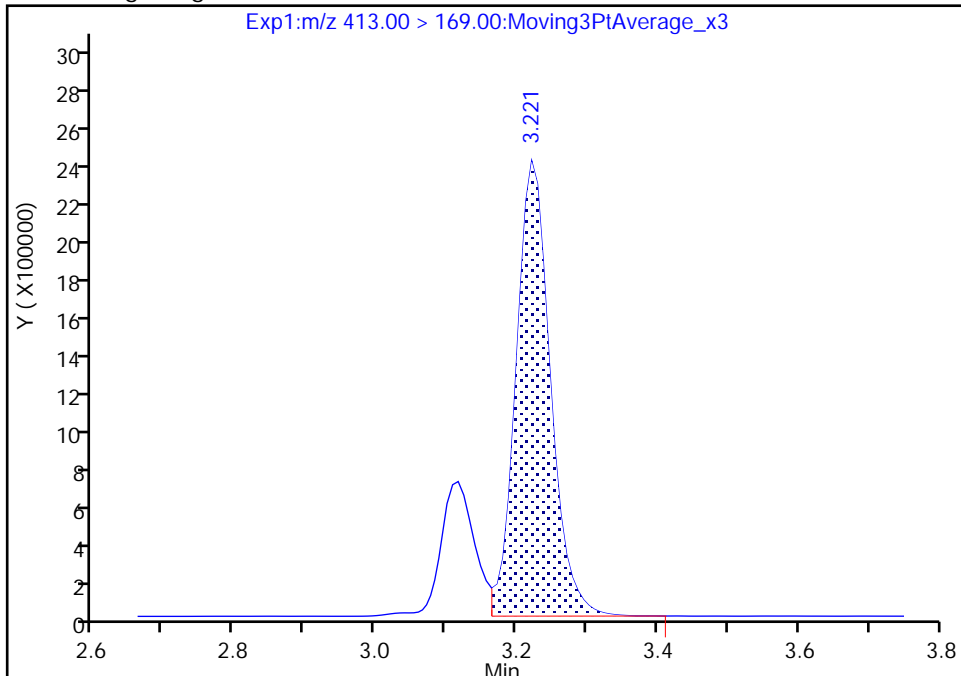
Data File: \\chromna\Sacramento\ChromData\A8_N\20181212-69054.b\2018.12.12LLA_025.d
Injection Date: 12-Dec-2018 11:57:16 Instrument ID: A8_N
Lims ID: 320-44773-B-10-A Lab Sample ID: 320-44773-10
Client ID: NASB-GWETS-EW-05-103118
Operator ID: SACINSTLCMS01 ALS Bottle#: 17 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 20.0000
Method: A8_N Limit Group: LC PFC_QSM5-1 ICAL
Column: Detector EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

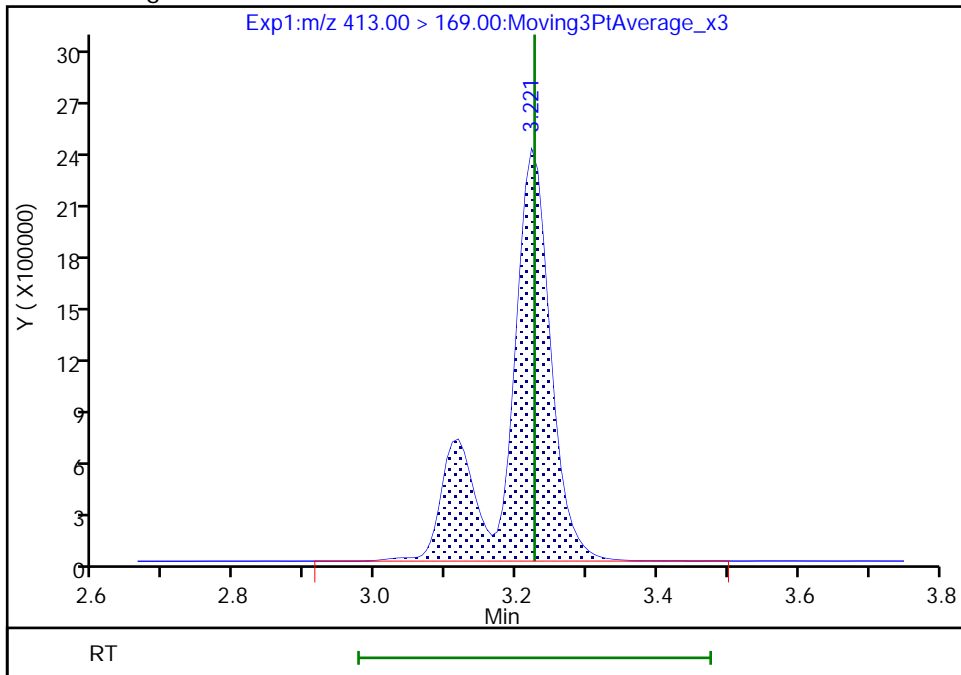
RT: 3.22
Area: 8071941
Amount: 6.837016
Amount Units: ng/ml

Processing Integration Results



RT: 3.22
Area: 10425147
Amount: 7.964793
Amount Units: ng/ml

Manual Integration Results



TestAmerica Sacramento

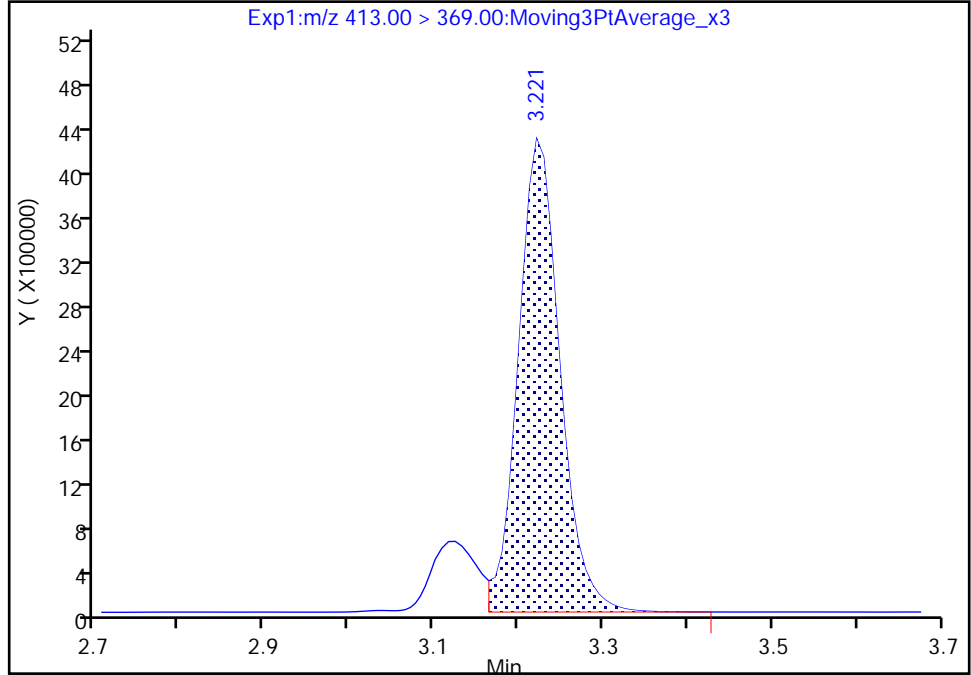
Data File: \\chromna\Sacramento\ChromData\A8_N\20181212-69054.b\2018.12.12LLA_025.d
Injection Date: 12-Dec-2018 11:57:16 Instrument ID: A8_N
Lims ID: 320-44773-B-10-A Lab Sample ID: 320-44773-10
Client ID: NASB-GWETS-EW-05-103118
Operator ID: SACINSTLCMS01 ALS Bottle#: 17 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 20.0000
Method: A8_N Limit Group: LC PFC_QSM5-1 ICAL
Column: Detector EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

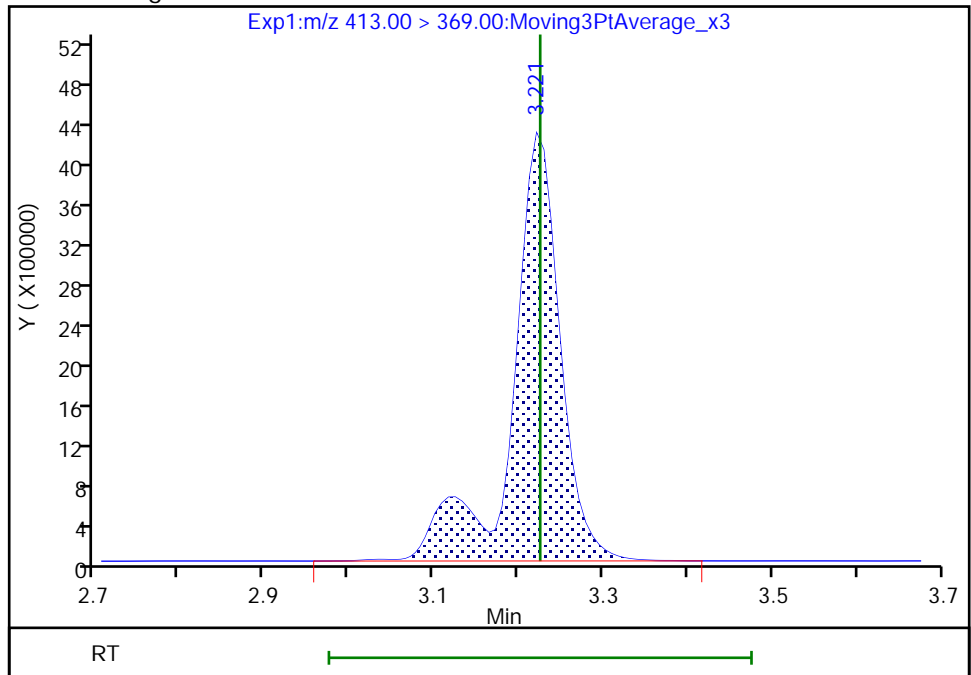
RT: 3.22
Area: 14420175
Amount: 6.837016
Amount Units: ng/ml

Processing Integration Results



RT: 3.22
Area: 16798807
Amount: 7.964793
Amount Units: ng/ml

Manual Integration Results



Reviewer: mongkols, 14-Dec-2018 09:36:34

Audit Action: Manually Integrated

Audit Reason: Isomers

ANALYTE	ORIGINAL	DUPLICATE	RL	RPD	RPD > 30%
PENTADEC AFLUORO OCTANOIC ACID (PFOA)	10	11	1.9	9.52	FALSE
PERFLUOROBUTANESULFONIC ACID (PFBS)	5.6	5.6	1.9	0.00	FALSE
PERFLUOROBUTANOIC ACID (PFBA)	120	130	1.9	8.00	FALSE
PERFLUOROHEPTANOIC ACID (PFHPA)	2.3	2.5	1.9	8.33	FALSE
PERFLUOROHEXANESULFONIC ACID (PFHXS)	0.94	0.97	1.9	3.14	FALSE
PERFLUOROHEXANOIC ACID (PFHXA)	180	190	1.9	5.41	FALSE
PERFLUOROPENTANOIC ACID (PFPEA)	280	280	1.9	0.00	FALSE


ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2xRL
TRUE	TRUE	FALSE
TRUE	TRUE	FALSE
TRUE	TRUE	TRUE
FALSE	FALSE	FALSE
FALSE	FALSE	FALSE
TRUE	TRUE	TRUE
TRUE	TRUE	FALSE

SDG 320-44773-1

TP-PFC-036-TPE/TP-PFC-036-TPE-D

Hest Sacramento, CA 95605
Phone: 916.373.5600 Fax:

Regulatory Program: DW NPDES RCRA Other:

Client Contact		Project Manager: <u>SEFFORANT</u>		Site Contact: <u>D. Peron</u>		Date: <u>10/31/18</u>		COC No:	
Company Name: <u>TESTA TECH NEWS</u>		Tel/Fax:		Lab Contact: <u>DAVID AHMED</u>		Carrier: <u>FEDEx</u>		1 of 1 COCs	
Address: <u>5 INDUSTRIAL WAY</u>		Analysis Turnaround Time							
City/State/Zip: <u>GALEN, NH, 03079</u>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							
Phone: <u>774-278-8167</u>		 320-44773 Chain of Custody							
Fax:									
Project Name: <u>GWETS BRIMBICK</u>									
Site:									
P O #									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Sample Specific Notes:
TP-PFC-036-TPI		10/31	0845	G	W	4	N	N	
* TP-PFC-036-MID-CARBON		10/31	0850	G	W	4	N	N	
TP-PFC-036-TPE #		10/31	0855	G	W	4	N	N	
TP-PFC-036-TPE-D		10/31	0900	G	W	4	N	N	
NASB-GWETS-EW-08-10/31/18		10/31	1000	G	W	4	N	N	
NASB-GWETS-EW-01-10/31/18		10/31	1015	G	W	4	N	N	
NASB-GWETS-EW-09-10/31/18		10/31	1030	G	W	4	N	N	
NASB-GWETS-EW-02-10/31/18		10/31	1050	G	W	4	N	N	
NASB-GWETS-EW-04-10/31/18		10/31	1110	G	W	4	N	N	
NASB-GWETS-EW-05-10/31/18		10/31	1135	G	W	4	N	N	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____									
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months				
Special Instructions/QC Requirements & Comments:									
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: <u>1.2</u> Corr'd: <u>1.2</u>		Therm ID No.: <u>AK-2</u>			
Relinquished by: <u>[Signature]</u>		Company: <u>TA</u>		Date/Time: <u>10/31 1300</u>		Received by: <u>[Signature]</u>		Company: _____ Date/Time: _____	
Relinquished by:		Company:		Date/Time:		Received by: <u>[Signature]</u>		Company: <u>TA-SAC</u> Date/Time: <u>11/1/18 09:10:00</u>	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company: _____ Date/Time: _____	

* LABELED TP-PFC-036-MIDCARBON JR 11-3-18

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 320-44773-1

Login Number: 44773
List Number: 1
Creator: Badhan, Manpreet

List Source: TestAmerica Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job Narrative
320-44773-1

Receipt

The samples were received on 11/1/2018 10:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.2° C and 2.1° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): TP-PFC-036-MID-CARBON (320-44773-2). The container labels list TP-PFC-36-MIDCARBON, while COC lists TP-PFC-36-MID-CARBON. Labeled according to COC.

LCMS

Method(s) EPA 537 (Mod), EPA 537(Mod): The first level standard from the initial calibration curve is used to evaluate the tune criteria. The instrument mass windows are set at +/- 0.5amu; therefore, detection of the analyte serves as verification that the assigned mass is within +/- 0.5amu of the true value, which meets the DoD/DOE QSM tune criterion.

Method(s) EPA 537 (Mod): Perfluorooctanesulfonic acid (PFOS) was detected above 1/2 of the reporting limit (RL) in the method blank associated with preparation batch 320-258787 and analytical batch 320-263304 as well as in the following samples: TP-PFC-036-MID-CARBON (320-44773-2), TP-PFC-036-TPE (320-44773-3), TP-PFC-036-TPE-D (320-44773-4) and (MB 320-258787/1-A). All affected samples were re-extracted outside of holding time. Both sets of data have been reported.

Method(s) EPA 537 (Mod): The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 320-258787 and analytical batch 320-263304 recovered outside control limits for the following analyte: Perfluorododecanoic acid (PFDoA). The associated samples was re-prepared outside holding time. Both sets of data have been reported.

Method(s) EPA 537 (Mod): The method blank for preparation batch 320-258787 and analytical batch 320-263304 contained Perfluorooctanesulfonic acid (PFOS) above 1/2 of the reporting limit (RL). The following samples were not re-extracted for this analyte because results were greater than 10X the detection found in the method blank: TP-PFC-036-TPI (320-44773-1), NASB-GWETS-EW-08-103118 (320-44773-5), NASB-GWETS-EW-01-103118 (320-44773-6), NASB-GWETS-EW-09-103118 (320-44773-7), NASB-GWETS-EW-02-103118 (320-44773-8), NASB-GWETS-EW-04-103118 (320-44773-9), NASB-GWETS-EW-05-103118 (320-44773-10) and (MB 320-258787/1-A).

Method(s) EPA 537 (Mod): Results for samples TP-PFC-036-TPI (320-44773-1), NASB-GWETS-EW-02-103118 (320-44773-8), NASB-GWETS-EW-04-103118 (320-44773-9) and NASB-GWETS-EW-05-103118 (320-44773-10) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method(s) EPA 537 (Mod): Results for sample NASB-GWETS-EW-09-103118 (320-44773-7) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method(s) 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-258787.

Method(s) 3535: The following samples were observed to contain sediment prior to extraction: NASB-GWETS-EW-01-103118 (320-44773-6), NASB-GWETS-EW-09-103118 (320-44773-7), NASB-GWETS-EW-02-103118 (320-44773-8) and NASB-GWETS-EW-05-103118 (320-44773-10).

Method(s) 3535: The following sample was observed to be a light yellow color and contained sediment prior to extraction: NASB-GWETS-EW-08-103118 (320-44773-5).

Method(s) 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-264671.

Method(s) 3535: The following samples were re-prepared outside of preparation holding time due to low LCS/LCSD recovery for one compound: TP-PFC-036-TPI (320-44773-1), TP-PFC-036-MID-CARBON (320-44773-2), TP-PFC-036-TPE (320-44773-3), TP-PFC-036-TPE-D (320-44773-4), NASB-GWETS-EW-08-103118 (320-44773-5), NASB-GWETS-EW-01-103118 (320-44773-6), NASB-GWETS-EW-09-103118 (320-44773-7), NASB-GWETS-EW-02-103118 (320-44773-8), NASB-GWETS-EW-04-103118 (320-44773-9) and NASB-GWETS-EW-05-103118 (320-44773-10).

Method(s) 3535: Due to the matrix of the sample being a yellow color and containing sediment, the following samples were decanted and then centrifuged. After centrifuged, they were fortified with IDA and extracted: NASB-GWETS-EW-08-103118 (320-44773-5), NASB-GWETS-EW-01-103118 (320-44773-6), NASB-GWETS-EW-09-103118 (320-44773-7) and NASB-GWETS-EW-05-103118 (320-44773-10).

Method(s) 3535: Elevated reporting limit is provided for the following sample due to insufficient sample provided for preparation: NASB-GWETS-EW-04-103118 (320-44773-9) and NASB-GWETS-EW-05-103118 (320-44773-10).

Method(s) 3535: The following sample is observed to be a yellow color prior to extraction: NASB-GWETS-EW-08-103118 (320-44773-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: TT: PFAS, Brunswick, Discharge

TestAmerica Job ID: 320-44773-1

Qualifiers

LCMS

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
Q	One or more quality control criteria failed.
E	Result exceeded calibration range.
B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.
M	Manual integrated compound.
D	The reported value is from a dilution.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: TT: PFAS, Brunswick, Discharge

TestAmerica Job ID: 320-44773-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-44773-1	TP-PFC-036-TPI	Water	10/31/18 08:45	11/01/18 10:20
320-44773-2	TP-PFC-036-MID-CARBON	Water	10/31/18 08:50	11/01/18 10:20
320-44773-3	TP-PFC-036-TPE	Water	10/31/18 08:55	11/01/18 10:20
320-44773-4	TP-PFC-036-TPE-D	Water	10/31/18 00:00	11/01/18 10:20
320-44773-5	NASB-GWETS-EW-08-103118	Water	10/31/18 10:00	11/01/18 10:20
320-44773-6	NASB-GWETS-EW-01-103118	Water	10/31/18 10:15	11/01/18 10:20
320-44773-7	NASB-GWETS-EW-09-103118	Water	10/31/18 10:30	11/01/18 10:20
320-44773-8	NASB-GWETS-EW-02-103118	Water	10/31/18 10:50	11/01/18 10:20
320-44773-9	NASB-GWETS-EW-04-103118	Water	10/31/18 11:10	11/01/18 10:20
320-44773-10	NASB-GWETS-EW-05-103118	Water	10/31/18 11:35	11/01/18 10:20

Method Summary

Client: Tetra Tech, Inc.
Project/Site: TT: PFAS, Brunswick, Discharge

TestAmerica Job ID: 320-44773-1

Method	Method Description	Protocol	Laboratory
EPA 537 (Mod)	PFAS for QSM 5.1, Table B-15	DOD 5.1	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

DOD 5.1 = Department of Defense Quality Systems Manual V5.1

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Sacramento

Job No.: 320-44773-1

SDG No.: _____

Matrix: Water

Level: Low

GC Column (1): GeminiC18 3 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFBA #	PFPeA #	PFBS #	PFHxA #	PFHpA #	PFHxS #	PFOA #	PFOS #
TP-PFC-036-TPI	320-44773-1	98	103	103	99	104	102	88	113
TP-PFC-036-TPI DL	320-44773-1 DL	93	90	85	93	87	88	84	92
TP-PFC-036-MID-CAR BON	320-44773-2	86	86	83	87	89	91	91	92
TP-PFC-036-TPE	320-44773-3	88	86	81	90	93	92	93	94
TP-PFC-036-TPE-D	320-44773-4	82	82	80	83	90	86	90	93
NASB-GWETS-EW-08-1 03118	320-44773-5	81	84	84	85	84	88	85	87
NASB-GWETS-EW-01-1 03118	320-44773-6	85	85	84	92	85	90	90	93
NASB-GWETS-EW-09-1 03118	320-44773-7	84	86	90	93	92	90	84	94
NASB-GWETS-EW-09-1 03118 DL	320-44773-7 DL	89	85	79	87	87	82	87	87
NASB-GWETS-EW-02-1 03118	320-44773-8	87	94	88	99	91	94	88	98
NASB-GWETS-EW-02-1 03118 DL	320-44773-8 DL	98	92	89	96	95	99	96	95
NASB-GWETS-EW-04-1 03118	320-44773-9	99	102	104	105	104	99	91	109
NASB-GWETS-EW-04-1 03118 DL	320-44773-9 DL	97	86	87	94	88	89	88	87
NASB-GWETS-EW-05-1 03118	320-44773-10	118	128	129	122	122	122	88	139
NASB-GWETS-EW-05-1 03118 DL	320-44773-10 DL	97	88	83	96	91	94	87	97
	MB 320-258787/1-A	87	89	85	92	87	90	93	91
	LCS 320-258787/2-A	89	89	86	94	86	90	93	96
	LCSD 320-258787/3-A	83	86	80	89	89	90	87	90

QC LIMITS

PFBA = 13C4 PFBA	50-150
PFPeA = 13C5 PFPeA	50-150
PFBS = 13C3 PFBS	50-150
PFHxA = 13C2 PFHxA	50-150
PFHpA = 13C4 PFHpA	50-150
PFHxS = 18O2 PFHxS	50-150
PFOA = 13C4 PFOA	50-150
PFOS = 13C4 PFOS	50-150

Column to be used to flag recovery values

FORM II EPA 537 (Mod)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Sacramento

Job No.: 320-44773-1

SDG No.: _____

Matrix: Water

Level: Low

GC Column (1): GeminiC18 3 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFNA #	PFOSA #	PFDA #	PFUnA #	PFDoA #	PFTDA #
TP-PFC-036-TPI	320-44773-1	111	105	114	113	104	96
TP-PFC-036-TPI DL	320-44773-1 DL	93	83	89	94	90	78
TP-PFC-036-MID-CAR BON	320-44773-2	93	86	89	95	87	79
TP-PFC-036-TPE	320-44773-3	96	90	95	100	94	87
TP-PFC-036-TPE-D	320-44773-4	88	83	88	92	84	75
NASB-GWETS-EW-08-1 03118	320-44773-5	89	80	83	80	64	52
NASB-GWETS-EW-01-1 03118	320-44773-6	93	89	93	100	86	78
NASB-GWETS-EW-09-1 03118	320-44773-7	90	89	92	99	87	71
NASB-GWETS-EW-09-1 03118 DL	320-44773-7 DL	86	76	82	88	81	69
NASB-GWETS-EW-02-1 03118	320-44773-8	99	93	95	105	100	87
NASB-GWETS-EW-02-1 03118 DL	320-44773-8 DL	94	88	92	93	87	85
NASB-GWETS-EW-04-1 03118	320-44773-9	104	100	105	113	103	96
NASB-GWETS-EW-04-1 03118 DL	320-44773-9 DL	91	77	80	87	84	83
NASB-GWETS-EW-05-1 03118	320-44773-10	143	132	132	147	138	128
NASB-GWETS-EW-05-1 03118 DL	320-44773-10 DL	98	88	90	93	87	88
	MB 320-258787/1-A	92	84	89	97	89	81
	LCS 320-258787/2-A	92	88	94	101	95	84
	LCSD 320-258787/3-A	88	82	89	91	93	77

QC LIMITS

PFNA = 13C5 PFNA	50-150
PFOSA = 13C8 FOSA	50-150
PFDA = 13C2 PFDA	50-150
PFUnA = 13C2 PFUnA	50-150
PFDoA = 13C2 PFDoA	50-150
PFTDA = 13C2 PFTeDA	50-150

Column to be used to flag recovery values

FORM II EPA 537 (Mod)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Sacramento

Job No.: 320-44773-1

SDG No.: _____

Matrix: Water

Level: Low

GC Column (1): Acquity ID: 2.1 (mm)

Client Sample ID	Lab Sample ID	PFDa #
TP-PFC-036-TPI RE	320-44773-1 RE	109
NASB-GWETS-EW-08-1 03118 RE	320-44773-5 RE	91
NASB-GWETS-EW-01-1 03118 RE	320-44773-6 RE	87
NASB-GWETS-EW-09-1 03118 RE	320-44773-7 RE	90
NASB-GWETS-EW-02-1 03118 RE	320-44773-8 RE	82
NASB-GWETS-EW-04-1 03118 RE	320-44773-9 RE	97
NASB-GWETS-EW-05-1 03118 RE	320-44773-10 RE	126

PFDa = 13C2 PFDa

QC LIMITS
50-150

Column to be used to flag recovery values

FORM II EPA 537 (Mod)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): Acquity ID: 2.1 (mm)

Client Sample ID	Lab Sample ID	PFOS #	PFDa #
TP-PFC-036-MID-CAR BON RE	320-44773-2 RE	97	85
TP-PFC-036-TPE RE	320-44773-3 RE	95	85
TP-PFC-036-TPE-D RE	320-44773-4 RE	94	82
	MB 320-264671/1-A	100	86
	LCS 320-264671/2-A	94	86
	LCSD 320-264671/3-A	100	98

PFOS = 13C4 PFOS
PFDa = 13C2 PFDa

QC LIMITS
50-150
50-150

Column to be used to flag recovery values

FORM II EPA 537 (Mod)

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Sample No.: CCV 320-263261/3 Date Analyzed: 12/05/2018 16:00
 Instrument ID: A8_N GC Column: GeminiC18 3x100 ID: 3 (mm)
 Lab File ID (Standard): 2018.12.05LLA_006.d Heated Purge: (Y/N) N
 Calibration ID: 42526

		13PFOA					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		5043203	3.22				
UPPER LIMIT		7564805	3.42				
LOWER LIMIT		2521602	3.02				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-263261/1		5268072	3.21				
CCVL 320-263261/2		5193297	3.21				
CCV 320-263304/1		5129013	3.22				
MB 320-258787/1-A		5578921	3.22				
LCS 320-258787/2-A		5676263	3.22				
LCSD 320-258787/3-A		5505032	3.22				
320-44773-1	TP-PFC-036-TPI	4680725	3.22				
320-44773-2	TP-PFC-036-MID-CARBON	5474484	3.22				
320-44773-3	TP-PFC-036-TPE	5572496	3.23				
320-44773-4	TP-PFC-036-TPE-D	5724345	3.22				
320-44773-5	NASB-GWETS-EW-08-1031 18	5576714	3.22				
320-44773-6	NASB-GWETS-EW-01-1031 18	5467041	3.23				
320-44773-7	NASB-GWETS-EW-09-1031 18	5161767	3.23				
CCV 320-263304/12		5241480	3.23				
320-44773-8	NASB-GWETS-EW-02-1031 18	5357986	3.22				
320-44773-9	NASB-GWETS-EW-04-1031 18	4715091	3.23				
320-44773-10	NASB-GWETS-EW-05-1031 18	3553050	3.22				
CCV 320-263304/17		5120871	3.23				

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
 RT Limit = ± 0.2 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Sample No.: IC 320-263888/5 Date Analyzed: 12/08/2018 05:39
 Instrument ID: A8_N GC Column: GeminiC18 3x100 ID: 3 (mm)
 Lab File ID (Standard): 2018.12.07ICAL_008. Heated Purge: (Y/N) N
 Calibration ID: 42666

	13PFOA					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	4919904	3.19				
UPPER LIMIT	7379856	3.39				
LOWER LIMIT	2459952	2.99				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICB 320-263888/9		5105758	3.18			
ICV 320-263888/10		5075507	3.19			
CCV 320-264730/3 CCVIS		5158257	3.22			
CCV 320-265418/3 CCVIS		5270864	3.22			

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
 RT Limit = ± 0.2 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Sample No.: CCV 320-264730/3 Date Analyzed: 12/12/2018 09:34
 Instrument ID: A8_N GC Column: GeminiC18 3x100 ID: 3 (mm)
 Lab File ID (Standard): 2018.12.12LLA_006.d Heated Purge: (Y/N) N
 Calibration ID: 42666

		13PFOA					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		5158257	3.22				
UPPER LIMIT		7737386	3.42				
LOWER LIMIT		2579129	3.02				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-264730/1		5257521	3.22				
CCVL 320-264730/2		5018132	3.22				
CCV 320-264745/1		5008918	3.23				
320-44773-1 DL	TP-PFC-036-TPI DL	658835Q	3.23				
320-44773-8 DL	NASB-GWETS-EW-02-1031 18 DL	2810412	3.23				
320-44773-9 DL	NASB-GWETS-EW-04-1031 18 DL	628312Q	3.23				
320-44773-10 DL	NASB-GWETS-EW-05-1031 18 DL	273370Q	3.22				
CCV 320-264745/10		5176849	3.22				

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
 RT Limit = ± 0.2 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Sample No.: CCV 320-265418/3 Date Analyzed: 12/14/2018 21:09
 Instrument ID: A8_N GC Column: GeminiC18 3x100 ID: 3 (mm)
 Lab File ID (Standard): 2018.12.14LLB_006.d Heated Purge: (Y/N) N
 Calibration ID: 42666

		13PFOA					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		5270864	3.22				
UPPER LIMIT		7906296	3.42				
LOWER LIMIT		2635432	3.02				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-265418/1		5457660	3.22				
CCVL 320-265418/2		5229326	3.22				
320-44773-7 DL	NASB-GWETS-EW-09-1031 18 DL	1520503Q	3.22				
CCV 320-265418/5		5029248	3.22				

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
 RT Limit = ± 0.2 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Sample No.: IC 320-263574/5 Date Analyzed: 12/07/2018 03:33
 Instrument ID: A9 GC Column: Acquity ID: 2.1 (mm)
 Lab File ID (Standard): 2018.12.06ICALB_005 Heated Purge: (Y/N) N
 Calibration ID: 42635

	13PFOA					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	8929377	3.17				
UPPER LIMIT	13394066	3.37				
LOWER LIMIT	4464689	2.97				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICB 320-263574/9		8918812	3.17			
ICV 320-263574/10		6852780	3.17			
CCV 320-265165/3 CCVIS		7788888	3.21			
CCV 320-265586/3 CCVIS		6318827	3.20			

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
 RT Limit = ± 0.2 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Sample No.: CCV 320-265165/3 Date Analyzed: 12/14/2018 18:09
 Instrument ID: A9 GC Column: Acquity ID: 2.1 (mm)
 Lab File ID (Standard): 2018.12.14LLE_006.d Heated Purge: (Y/N) N
 Calibration ID: 42635

		13PFOA					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		7788888	3.21				
UPPER LIMIT		11683332	3.41				
LOWER LIMIT		3894444	3.01				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-265165/1		7052433	3.20				
CCVL 320-265165/2		7858159	3.20				
MB 320-264671/1-A		8539597	3.20				
LCS 320-264671/2-A		8639831	3.20				
320-44773-1 RE	TP-PFC-036-TPI RE	6933962	3.20				
320-44773-2 RE	TP-PFC-036-MID-CARBON RE	8568948	3.20				
320-44773-3 RE	TP-PFC-036-TPE RE	8796386	3.20				
320-44773-4 RE	TP-PFC-036-TPE-D RE	7180478	3.20				
320-44773-5 RE	NASB-GWETS-EW-08-1031 18 RE	6858634	3.21				
320-44773-6 RE	NASB-GWETS-EW-01-1031 18 RE	7220864	3.20				
320-44773-7 RE	NASB-GWETS-EW-09-1031 18 RE	6557662	3.21				
CCV 320-265165/14		6762009	3.20				
320-44773-8 RE	NASB-GWETS-EW-02-1031 18 RE	8079416	3.20				
320-44773-9 RE	NASB-GWETS-EW-04-1031 18 RE	7626656	3.20				
320-44773-10 RE	NASB-GWETS-EW-05-1031 18 RE	5094059	3.21				
CCV 320-265165/19		7748917	3.22				

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
 RT Limit = ± 0.2 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Sample No.: CCV 320-265586/3 Date Analyzed: 12/15/2018 19:27
 Instrument ID: A9 GC Column: Acquity ID: 2.1 (mm)
 Lab File ID (Standard): 2018.12.15LLC_006.d Heated Purge: (Y/N) N
 Calibration ID: 42635

	13PFOA					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	6318827	3.20				
UPPER LIMIT	9478241	3.40				
LOWER LIMIT	3159414	3.00				
LAB SAMPLE ID	CLIENT SAMPLE ID					
CCB 320-265586/1		7870301	3.21			
CCVL 320-265586/2		7558667	3.21			
CCV 320-265591/1		7153873	3.22			
LCSD 320-264671/3-A		7791786	3.22			
CCV 320-265591/4		7586267	3.22			

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
 RT Limit = ± 0.2 minutes of internal standard RT

Column used to flag values outside QC limits

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab File ID: 2018.12.05LLA_014.d Lab Sample ID: MB 320-258787/1-A
 Matrix: Water Date Extracted: 11/13/2018 08:37
 Instrument ID: A8_N Date Analyzed: 12/05/2018 17:00
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-258787/2-A	2018.12.05L LA 015.d	12/05/2018 17:08
	LCSD 320-258787/3-A	2018.12.05L LA 016.d	12/05/2018 17:15
TP-PFC-036-TPI	320-44773-1	2018.12.05L LA 017.d	12/05/2018 17:23
TP-PFC-036-MID-CARBON	320-44773-2	2018.12.05L LA 018.d	12/05/2018 17:30
TP-PFC-036-TPE	320-44773-3	2018.12.05L LA 019.d	12/05/2018 17:38
TP-PFC-036-TPE-D	320-44773-4	2018.12.05L LA 020.d	12/05/2018 17:45
NASB-GWETS-EW-08-103118	320-44773-5	2018.12.05L LA 021.d	12/05/2018 17:53
NASB-GWETS-EW-01-103118	320-44773-6	2018.12.05L LA 022.d	12/05/2018 18:00
NASB-GWETS-EW-09-103118	320-44773-7	2018.12.05L LA 023.d	12/05/2018 18:08
NASB-GWETS-EW-02-103118	320-44773-8	2018.12.05L LA 025.d	12/05/2018 18:23
NASB-GWETS-EW-04-103118	320-44773-9	2018.12.05L LA 026.d	12/05/2018 18:30
NASB-GWETS-EW-05-103118	320-44773-10	2018.12.05L LA 027.d	12/05/2018 18:38
TP-PFC-036-TPI DL	320-44773-1 DL	2018.12.12L LA 021.d	12/12/2018 11:27
NASB-GWETS-EW-02-103118 DL	320-44773-8 DL	2018.12.12L LA 023.d	12/12/2018 11:42
NASB-GWETS-EW-04-103118 DL	320-44773-9 DL	2018.12.12L LA 024.d	12/12/2018 11:49
NASB-GWETS-EW-05-103118 DL	320-44773-10 DL	2018.12.12L LA 025.d	12/12/2018 11:57
NASB-GWETS-EW-09-103118 DL	320-44773-7 DL	2018.12.14L LB 007.d	12/14/2018 21:17

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 320-258787/1-A
 Matrix: Water Lab File ID: 2018.12.05LLA_014.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 250.00 (mL) Date Analyzed: 12/05/2018 17:00
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	1.5	U	2.0	1.5	0.59
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.0	U	2.0	1.0	0.43
307-24-4	Perfluorohexanoic acid (PFHxA)	1.0	U	2.0	1.0	0.47
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.5	U	2.0	1.5	0.61
335-67-1	Perfluorooctanoic acid (PFOA)	1.5	U	2.0	1.5	0.54
375-95-1	Perfluorononanoic acid (PFNA)	1.5	U	2.0	1.5	0.52
335-76-2	Perfluorodecanoic acid (PFDA)	1.0	U	2.0	1.0	0.48
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.5	U	2.0	1.5	0.72
307-55-1	Perfluorododecanoic acid (PFDoA)	1.5	U	2.0	1.5	0.52
72629-94-8	Perfluorotridecanoic acid (PFTriA)	3.0	U	4.0	3.0	0.76
376-06-7	Perfluorotetradecanoic acid (PFTeA)	3.0	U	4.0	3.0	0.83
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.0	U	2.0	1.0	0.46
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.0	U	2.0	1.0	0.38
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	1.0	U	2.0	1.0	0.37
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.58	J	4.0	3.0	1.1
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.5	U	2.0	1.5	0.56
754-91-6	Perfluorooctanesulfonamide (FOSA)	3.0	U	4.0	3.0	1.3

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 320-258787/1-A
 Matrix: Water Lab File ID: 2018.12.05LLA_014.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: 3535 Date Extracted: 11/13/2018 08:37
 Sample wt/vol: 250.00 (mL) Date Analyzed: 12/05/2018 17:00
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263304 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	84		50-150
STL00992	13C4 PFBA	87		50-150
STL01893	13C5 PFPeA	89		50-150
STL00993	13C2 PFHxA	92		50-150
STL01892	13C4 PFHpA	87		50-150
STL00990	13C4 PFOA	93		50-150
STL00995	13C5 PFNA	92		50-150
STL00996	13C2 PFDA	89		50-150
STL00997	13C2 PFUnA	97		50-150
STL00998	13C2 PFDoA	89		50-150
STL00994	18O2 PFHxS	90		50-150
STL02116	13C2 PFTeDA	81		50-150
STL00991	13C4 PFOS	91		50-150
STL02337	13C3 PFBS	85		50-150

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento

Job No.: 320-44773-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 2018.12.05LLA_015.d

Lab ID: LCS 320-258787/2-A

Client ID: _____

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorobutanoic acid (PFBA)	40.0	40.4	101	83-118	
Perfluoropentanoic acid (PFPeA)	40.0	39.3	98	83-108	
Perfluorohexanoic acid (PFHxA)	40.0	38.1	95	83-109	
Perfluoroheptanoic acid (PFHpA)	40.0	39.4	99	80-113	
Perfluorooctanoic acid (PFOA)	40.0	37.8	95	80-107	
Perfluorononanoic acid (PFNA)	40.0	38.8	97	83-113	
Perfluorodecanoic acid (PFDA)	40.0	39.1	98	85-113	
Perfluoroundecanoic acid (PFUnA)	40.0	34.5	86	76-105	
Perfluorododecanoic acid (PFDoA)	40.0	34.0	85	87-116	Q
Perfluorotridecanoic acid (PFTriA)	40.0	36.2	90	75-129	
Perfluorotetradecanoic acid (PFTeA)	40.0	38.4	96	82-115	
Perfluorobutanesulfonic acid (PFBS)	35.4	36.6	103	87-120	
Perfluorohexanesulfonic acid (PFHxS)	36.4	32.6	90	81-106	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	35.5	93	80-117	
Perfluorooctanesulfonic acid (PFOS)	37.1	37.7	102	82-112	
Perfluorodecanesulfonic acid (PFDS)	38.6	37.5	97	81-114	
Perfluorooctanesulfonamide (FOSA)	40.0	40.1	100	85-114	
13C8 FOSA	100	87.5	88	50-150	
13C4 PFBA	100	88.6	89	50-150	
13C5 PFPeA	100	88.8	89	50-150	
13C2 PFHxA	100	93.9	94	50-150	
13C4 PFHpA	100	85.7	86	50-150	
13C4 PFOA	100	93.2	93	50-150	
13C5 PFNA	100	92.4	92	50-150	
13C2 PFDA	100	94.2	94	50-150	
13C2 PFUnA	100	101	101	50-150	
13C2 PFDoA	100	94.8	95	50-150	
18O2 PFHxS	94.6	85.1	90	50-150	
13C2 PFTeDA	100	83.8	84	50-150	
13C4 PFOS	95.6	92.0	96	50-150	
13C3 PFBS	93.0	79.6	86	50-150	

Column to be used to flag recovery and RPD values

FORM III
LCMS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento

Job No.: 320-44773-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 2018.12.05LLA_016.d

Lab ID: LCSD 320-258787/3-A

Client ID: _____

COMPOUND	SPIKE ADDED (ng/L)	LCSD CONCENTRATION (ng/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Perfluorobutanoic acid (PFBA)	40.0	39.8	99	2	30	83-118	
Perfluoropentanoic acid (PFPeA)	40.0	38.2	96	3	30	83-108	
Perfluorohexanoic acid (PFHxA)	40.0	36.7	92	4	30	83-109	
Perfluoroheptanoic acid (PFHpA)	40.0	36.8	92	7	30	80-113	
Perfluorooctanoic acid (PFOA)	40.0	38.3	96	1	30	80-107	
Perfluorononanoic acid (PFNA)	40.0	38.8	97	0	30	83-113	
Perfluorodecanoic acid (PFDA)	40.0	37.1	93	5	30	85-113	
Perfluoroundecanoic acid (PFUnA)	40.0	37.6	94	9	30	76-105	
Perfluorododecanoic acid (PFDoA)	40.0	32.2	81	6	30	87-116	Q
Perfluorotridecanoic acid (PFTriA)	40.0	34.2	86	6	30	75-129	
Perfluorotetradecanoic acid (PFTeA)	40.0	38.1	95	1	30	82-115	
Perfluorobutanesulfonic acid (PFBS)	35.4	38.1	108	4	30	87-120	
Perfluorohexanesulfonic acid (PFHxS)	36.4	32.8	90	0	30	81-106	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	36.0	95	1	30	80-117	
Perfluorooctanesulfonic acid (PFOS)	37.1	37.1	100	2	30	82-112	
Perfluorodecanesulfonic acid (PFDS)	38.6	38.6	100	3	30	81-114	
Perfluorooctanesulfonamide (FOSA)	40.0	38.7	97	4	30	85-114	
13C8 FOSA	100	82.0	82			50-150	
13C4 PFBA	100	82.6	83			50-150	
13C5 PFPeA	100	85.6	86			50-150	
13C2 PFHxA	100	88.9	89			50-150	
13C4 PFHpA	100	88.7	89			50-150	
13C4 PFOA	100	86.8	87			50-150	
13C5 PFNA	100	88.1	88			50-150	
13C2 PFDA	100	89.4	89			50-150	
13C2 PFUnA	100	91.5	91			50-150	
13C2 PFDoA	100	92.8	93			50-150	
18O2 PFHxS	94.6	85.2	90			50-150	
13C2 PFTeDA	100	77.4	77			50-150	
13C4 PFOS	95.6	86.4	90			50-150	
13C3 PFBS	93.0	74.8	80			50-150	

Column to be used to flag recovery and RPD values

REANALYSES NOT USED IN DATA VALIDATION

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab File ID: 2018.12.14LLE_007.d Lab Sample ID: MB 320-264671/1-A
 Matrix: Water Date Extracted: 12/12/2018 07:23
 Instrument ID: A9 Date Analyzed: 12/14/2018 18:17
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-264671/2-A	2018.12.14L LE 008.d	12/14/2018 18:24
TP-PFC-036-TPI RE	320-44773-1 RE	2018.12.14L LE 010.d	12/14/2018 18:39
TP-PFC-036-MID-CARBON RE	320-44773-2 RE	2018.12.14L LE 011.d	12/14/2018 18:47
TP-PFC-036-TPE RE	320-44773-3 RE	2018.12.14L LE 012.d	12/14/2018 18:55
TP-PFC-036-TPE-D RE	320-44773-4 RE	2018.12.14L LE 013.d	12/14/2018 19:02
NASB-GWETS-EW-08-103118 RE	320-44773-5 RE	2018.12.14L LE 014.d	12/14/2018 19:10
NASB-GWETS-EW-01-103118 RE	320-44773-6 RE	2018.12.14L LE 015.d	12/14/2018 19:17
NASB-GWETS-EW-09-103118 RE	320-44773-7 RE	2018.12.14L LE 016.d	12/14/2018 19:25
NASB-GWETS-EW-02-103118 RE	320-44773-8 RE	2018.12.14L LE 018.d	12/14/2018 19:40
NASB-GWETS-EW-04-103118 RE	320-44773-9 RE	2018.12.14L LE 019.d	12/14/2018 19:47
NASB-GWETS-EW-05-103118 RE	320-44773-10 RE	2018.12.14L LE 020.d	12/14/2018 19:55
	LCSD 320-264671/3-A	2018.12.15L LC 053.d	12/16/2018 01:20

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 320-264671/1-A
 Matrix: Water Lab File ID: 2018.12.14LLE_007.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: 3535 Date Extracted: 12/12/2018 07:23
 Sample wt/vol: 250.00 (mL) Date Analyzed: 12/14/2018 18:17
 Con. Extract Vol.: 10.00 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: Acquity ID: 2.1 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265165 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
307-55-1	Perfluorododecanoic acid (PFDoA)	1.5	U M	2.0	1.5	0.52
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.0	U M	4.0	3.0	1.1

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00998	13C2 PFDoA	86		50-150
STL00991	13C4 PFOS	100		50-150

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 2018.12.14LLE_008.d
 Lab ID: LCS 320-264671/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorododecanoic acid (PFDoA)	40.0	39.0	98	87-116	
Perfluorooctanesulfonic acid (PFOS)	37.1	35.6	96	82-112	M
13C2 PFDoA	100	86.2	86	50-150	
13C4 PFOS	95.6	89.9	94	50-150	

Column to be used to flag recovery and RPD values
 FORM III EPA 537 (Mod)

FORM III
LCMS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: 2018.12.15LLC_053.d

Lab ID: LCSD 320-264671/3-A Client ID: _____

COMPOUND	SPIKE ADDED (ng/L)	LCSD CONCENTRATION (ng/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Perfluorododecanoic acid (PFDoA)	40.0	35.9	90	8	30	87-116	
Perfluorooctanesulfonic acid (PFOS)	37.1	34.3	92	4	30	82-112	M
13C2 PFDoA	100	98.3	98			50-150	
13C4 PFOS	95.6	95.3	100			50-150	

Column to be used to flag recovery and RPD values

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Instrument ID: A8_N Start Date: 11/29/2018 06:46

Analysis Batch Number: 261835 End Date: 11/29/2018 07:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 320-261835/2		11/29/2018 06:46	1	2018.11.29PFCIC AL 005.d	GeminiC18 3x100 3(mm)
IC 320-261835/3		11/29/2018 06:54	1	2018.11.29PFCIC AL 006.d	GeminiC18 3x100 3(mm)
IC 320-261835/4		11/29/2018 07:01	1	2018.11.29PFCIC AL 007.d	GeminiC18 3x100 3(mm)
IC 320-261835/5 ICIS		11/29/2018 07:09	1	2018.11.29PFCIC AL 008.d	GeminiC18 3x100 3(mm)
IC 320-261835/6		11/29/2018 07:16	1	2018.11.29PFCIC AL 009.d	GeminiC18 3x100 3(mm)
IC 320-261835/7		11/29/2018 07:24	1	2018.11.29PFCIC AL 010.d	GeminiC18 3x100 3(mm)
IC 320-261835/8		11/29/2018 07:31	1	2018.11.29PFCIC AL 011.d	GeminiC18 3x100 3(mm)
ICB 320-261835/9		11/29/2018 07:39	1	2018.11.29PFCIC AL 012.d	GeminiC18 3x100 3(mm)
ICV 320-261835/10		11/29/2018 07:46	1	2018.11.29PFCIC AL 013.d	GeminiC18 3x100 3(mm)
ZZZZZ		11/29/2018 07:54	1		GeminiC18 3x100 3(mm)

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 261835

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/29/2018 06:46 Calibration End Date: 11/29/2018 07:31 Calibration ID: 42526

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-261835/2	2018.11.29PFCICAL_005.d
Level 2	IC 320-261835/3	2018.11.29PFCICAL_006.d
Level 3	IC 320-261835/4	2018.11.29PFCICAL_007.d
Level 4	IC 320-261835/5	2018.11.29PFCICAL_008.d
Level 5	IC 320-261835/6	2018.11.29PFCICAL_009.d
Level 6	IC 320-261835/7	2018.11.29PFCICAL_010.d
Level 7	IC 320-261835/8	2018.11.29PFCICAL_011.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Perfluorobutanoic acid (PFBA)	0.8889 0.9304	0.8847 0.8791	0.9043	0.9294	0.9537	AveID		0.9101			3.1		20.0				
Perfluoropentanoic acid (PFPeA)	1.0823 1.1021	1.1187 1.0372	1.1151	1.0528	1.1203	AveID		1.0898			3.1		20.0				
Perfluorobutanesulfonic acid (PFBS)	0.9827 0.9623	0.9877 0.8741	0.9824	1.0151	0.9893	AveID		0.9705			4.7		20.0				
4:2 FTS	0.2105 0.1807	0.1922 0.1920	0.1975	0.1950	0.1808	AveID		0.1927			5.3		20.0				
Perfluorohexanoic acid (PFHxA)	1.0811 1.0007	0.9662 0.9253	1.0189	1.0080	1.0191	AveID		1.0027			4.8		20.0				
Perfluoropentanesulfonic acid	0.8225 0.8645	0.8758 0.7572	0.8972	0.9254	0.8703	AveID		0.8590			6.4		20.0				
Perfluoroheptanoic acid (PFHpA)	1.0310 1.0431	1.1198 1.0385	1.0902	1.0544	1.0674	AveID		1.0635			3.0		20.0				
Perfluorohexanesulfonic acid (PFHxS)	1.3625 1.0586	1.0836 1.0394	1.0156	0.9997	1.0404	AveID		1.0857			11.5		20.0				
6:2 FTS	1.4058 1.6370	1.5845 1.6049	1.4804	1.6140	1.5681	AveID		1.5564			5.3		20.0				
Perfluoroheptanesulfonic Acid (PFHpS)	1.2990 1.3040	1.3701 1.2356	1.3012	1.2848	1.3728	AveID		1.3097			3.7		20.0				
Perfluorooctanoic acid (PFOA)	1.2960 1.0780	1.1611 1.0304	1.1348	1.0993	1.1399	AveID		1.1342			7.4		20.0				
Perfluorooctanesulfonic acid (PFOS)	1.0880 1.1146	1.1562 1.1352	1.0834	1.0926	1.1341	AveID		1.1149			2.5		20.0				
Perfluorononanoic acid (PFNA)	1.0425 1.0168	1.0805 1.0261	0.9947	1.0178	1.0431	AveID		1.0316			2.6		20.0				
Perfluorononanesulfonic acid	0.7291 0.7629	0.8199 0.7700	0.7750	0.7665	0.8213	AveID		0.7778			4.2		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento

Job No.: 320-44773-1

Analy Batch No.: 261835

SDG No.: _____

Instrument ID: A8_N

GC Column: GeminiC18 3 ID: 3(mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/29/2018 06:46

Calibration End Date: 11/29/2018 07:31

Calibration ID: 42526

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
8:2 FTS	1.2199 1.3077	1.2910 1.2978	1.4441	1.3084	1.3001	AveID		1.3099			5.1		20.0				
Perfluorodecanoic acid (PFDA)	0.9405 1.0290	1.0029 0.9650	1.0310	0.9455	0.9923	AveID		0.9866			3.8		20.0				
Perfluorooctanesulfonamide (FOSA)	1.0507 0.9919	1.0367 0.9465	0.9594	1.0072	1.0130	AveID		1.0008			3.8		20.0				
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.7923 1.0542	0.8935 0.9840	0.9392	1.0047	0.9183	AveID		0.9409			9.1		20.0				
Perfluorodecanesulfonic acid (PFDS)	0.6330 0.6606	0.6710 0.6366	0.6261	0.6232	0.6842	AveID		0.6478			3.7		20.0				
Perfluoroundecanoic acid (PFUnA)	0.9241 0.8902	0.9655 0.9072	0.8525	0.8291	0.8943	AveID		0.8947			5.0		20.0				
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.8032 0.8224	0.9597 0.9256	0.8465	0.7933	0.8653	AveID		0.8594			7.3		20.0				
Perfluorododecanoic acid (PFDoA)	1.1926 1.1267	1.1309 1.0313	1.0247	1.0348	1.0710	AveID		1.0874			5.9		20.0				
Perfluorotridecanoic acid (PFTriA)	1.0697 1.0845	1.0231 0.9907	1.0192	1.0690	1.1418	AveID		1.0569			4.8		20.0				
Perfluorotetradecanoic acid (PFTeA)	0.2654 0.2569	0.2632 0.2562	0.2599	0.2534	0.2560	AveID		0.2587			1.7		20.0				
13C4 PFBA	1.4910 1.5651	1.5255 1.5747	1.4994	1.5228	1.5052	Ave		1.5262			2.1		20.0				
13C5 PFPeA	0.9535 0.9882	0.9459 0.9655	0.9449	0.9761	0.9441	Ave		0.9597			1.8		20.0				
13C3 PFBS	1.4058 1.5086	1.4279 1.5523	1.3891	1.4532	1.5007	Ave		1.4625			4.1		20.0				
13C2 PFHxA	0.9790 1.0472	1.0267 1.0401	0.9997	1.0223	0.9911	Ave		1.0152			2.5		20.0				
13C4 PFHpA	0.9819 1.0113	0.9994 0.9624	1.0181	1.0121	0.9906	Ave		0.9965			2.0		20.0				
18O2 PFHxS	1.0740 1.1305	1.2038 1.0823	1.1428	1.1713	1.1547	Ave		1.1371			4.1		20.0				
M2-6:2 FTS	0.1749 0.1784	0.1768 0.1666	0.1781	0.1785	0.1731	Ave		0.1752			2.4		20.0				
13C4 PFOA	0.9701 0.9833	1.0139 0.9731	0.9486	0.9899	0.9350	Ave		0.9734			2.7		20.0				
13C4 PFOS	0.7338 0.7553	0.7174 0.7471	0.7368	0.7695	0.7393	Ave		0.7427			2.2		20.0				
13C5 PFNA	0.7852 0.8385	0.8210 0.8070	0.8094	0.8455	0.8030	Ave		0.8157			2.6		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
 CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 261835
 SDG No.: _____
 Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3 (mm) Heated Purge: (Y/N) N
 Calibration Start Date: 11/29/2018 06:46 Calibration End Date: 11/29/2018 07:31 Calibration ID: 42526

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
13C2 PFDA	0.7268 0.7260	0.7134 0.6961	0.6829	0.7211	0.7182	Ave		0.7121			2.3		20.0				
M2-8:2 FTS	0.1853 0.1987	0.1820 0.1932	0.1766	0.1987	0.1881	Ave		0.1889			4.4		20.0				
13C8 FOSA	1.0707 1.1327	1.0930 1.0778	1.0984	1.1113	1.0973	Ave		1.0973			1.9		20.0				
d3-NMeFOSAA	0.3329 0.3377	0.3510 0.3673	0.3526	0.3394	0.3541	Ave		0.3479			3.4		20.0				
13C2 PFUnA	0.5765 0.5836	0.5812 0.5602	0.5770	0.5715	0.5630	Ave		0.5733			1.5		20.0				
d5-NEtFOSAA	0.3728 0.3821	0.3669 0.3489	0.3565	0.3787	0.3672	Ave		0.3676			3.2		20.0				
13C2 PFDoA	0.5731 0.6127	0.6260 0.6357	0.6125	0.6164	0.5933	Ave		0.6099			3.4		20.0				
13C2 PFTeDA	0.7036 0.7271	0.7456 0.7316	0.7128	0.7431	0.7189	Ave		0.7261			2.1		20.0				
13C2 PFHxDA	1.3297 1.3473	1.3363 1.2916	1.3596	1.3827	1.3412	Ave		1.3412			2.1		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 261835

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/29/2018 06:46 Calibration End Date: 11/29/2018 07:31 Calibration ID: 42526

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-261835/2	2018.11.29PFCICAL_005.d
Level 2	IC 320-261835/3	2018.11.29PFCICAL_006.d
Level 3	IC 320-261835/4	2018.11.29PFCICAL_007.d
Level 4	IC 320-261835/5	2018.11.29PFCICAL_008.d
Level 5	IC 320-261835/6	2018.11.29PFCICAL_009.d
Level 6	IC 320-261835/7	2018.11.29PFCICAL_010.d
Level 7	IC 320-261835/8	2018.11.29PFCICAL_011.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perfluorobutanoic acid (PFBA)		AveID	65657 13756884	130666 24891473	662304	2790150	6980294	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluoropentanoic acid (PFPeA)		AveID	51127 10289557	102447 18006131	514658	2026058	5143281	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorobutanesulfonic acid (PFBS)		AveID	60500 12124929	120709 21566859	589215	2571053	6382050	0.0221 4.42	0.0442 8.84	0.221	0.884	2.21
4:2 FTS		AveID	13693 2405142	24814 5005640	125150	521837	1232150	0.0234 4.67	0.0467 9.34	0.234	0.934	2.34
Perfluorohexanoic acid (PFHxA)		AveID	52437 9899875	96038 17305595	497507	2031527	4911287	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluoropentanesulfonic acid		AveID	53730 11557824	113572 19824089	571024	2487059	5957020	0.0235 4.69	0.0469 9.38	0.235	0.938	2.35
Perfluoroheptanoic acid (PFHpA)		AveID	50154 9966359	108355 17969899	542116	2104050	5141963	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorohexanesulfonic acid (PFHxS)		AveID	65974 10289418	114919 18406603	515880	2100762	5315886	0.0228 4.55	0.0455 9.10	0.228	0.910	2.28
6:2 FTS		AveID	11547 2615324	25717 4558705	122083	538498	1251547	0.0237 4.74	0.0474 9.48	0.237	0.948	2.37
Perfluoroheptanesulfonic Acid (PFHpS)		AveID	44955 8858103	90590 15802673	445810	1855617	4698739	0.0238 4.76	0.0476 9.52	0.238	0.952	2.38
Perfluorooctanoic acid (PFOA)		AveID	62345 10024286	114091 18048805	526320	2147524	5187467	0.0250 5.01	0.0501 10.0	0.250	1.00	2.50
Perfluorooctanesulfonic acid (PFOS)		AveID	36702 7380472	74516 14152728	361827	1538297	3783829	0.0232 4.64	0.0464 9.28	0.232	0.928	2.32
Perfluorononanoic acid (PFNA)		AveID	40555 8055062	85878 14888913	393227	1696607	4073348	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorononanesulfonic acid		AveID	25444 5226088	54663 9931006	267772	1116371	2834694	0.0240 4.80	0.0480 9.60	0.240	0.960	2.40
8:2 FTS		AveID	10729 2351661	21789 4318341	119347	490997	1139190	0.0240 4.79	0.0479 9.58	0.240	0.958	2.40

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento

Job No.: 320-44773-1

Analy Batch No.: 261835

SDG No.: _____

Instrument ID: A8_N

GC Column: GeminiC18 3 ID: 3(mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/29/2018 06:46

Calibration End Date: 11/29/2018 07:31

Calibration ID: 42526

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7				LVL 6	LVL 7			
Perfluorodecanoic acid (PFDA)		AveID	33865 7057683	69265 12077597	343916	1344142	3465543	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorooctanesulfonamide (FOSA)		AveID	55733 10614611	109703 18343130	514716	2206863	5404973	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		AveID	13069 3362979	30364 6499096	161753	672200	1581217	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorodecanesulfonic acid (PFDS)		AveID	22181 4543700	44921 8243780	217226	911397	2371422	0.0241 4.82	0.0482 9.64	0.241	0.964	2.41
Perfluoroundecanoic acid (PFUnA)		AveID	26393 4908272	54326 9137882	240258	934199	2448410	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		AveID	14832 2969135	34087 5806185	147414	592262	1544938	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorododecanoic acid (PFDoA)		AveID	33859 6521952	68540 11788317	306538	1257557	3089872	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorotridecanoic acid (PFTriA)		AveID	30368 6277573	62006 11323876	304915	1299171	3294032	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorotetradecanoic acid (PFTeA)		AveID	9253 1765058	18999 3370185	90499	371267	895015	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
13C4 PFBA	13PF OA	Ave	7386574 7393124	7384438 7078750	7323675	7505630	7319376	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C5 PFPeA	13PF OA	Ave	4723734 4668056	4578962 4340201	4615307	4810976	4590990	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C3 PFBS	13PF OA	Ave	6477164 6627498	6428444 6489578	6309899	6661324	6786470	2.33 2.33	2.33 2.33	2.33	2.33	2.33
13C2 PFHxA	13PF OA	Ave	4850277 4946631	4970004 4675743	4882930	5038683	4819322	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C4 PFHpA	13PF OA	Ave	4864514 4777339	4837987 4326076	4972673	4988562	4817159	2.50 2.50	2.50 2.50	2.50	2.50	2.50
18O2 PFHxS	13PF OA	Ave	5033594 5052099	5512544 4602353	5280390	5461569	5311560	2.37 2.37	2.37 2.37	2.37	2.37	2.37
M2-6:2 FTS	13PF OA	Ave	823121 800502	813210 711627	826416	835878	799833	2.38 2.38	2.38 2.38	2.38	2.38	2.38
13C4 PFOA	13PF OA	Ave	4805875 4644760	4908199 4374502	4633463	4878940	4546414	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C4 PFOS	13PF OA	Ave	3475238 3410756	3319786 3210717	3440581	3625860	3437024	2.39 2.39	2.39 2.39	2.39	2.39	2.39
13C5 PFNA	13PF OA	Ave	3890167 3960946	3974069 3627582	3953315	4167325	3904861	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFDA	13PF OA	Ave	3600777 3429499	3453391 3128982	3335607	3554030	3492597	2.50 2.50	2.50 2.50	2.50	2.50	2.50
M2-8:2 FTS	13PF OA	Ave	879504 899152	843874 831856	826435	938184	876218	2.40 2.40	2.40 2.40	2.40	2.40	2.40

FORM VI
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
 RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 261835

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/29/2018 06:46 Calibration End Date: 11/29/2018 07:31 Calibration ID: 42526

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7				LVL 6	LVL 7			
13C8 FOSA	13PF OA	Ave	5304468 5350524	5291146 4844768	5364881	5477482	5335678	2.50 2.50	2.50 2.50	2.50	2.50	2.50
d3-NMeFOSAA	13PF OA	Ave	1649399 1595051	1699195 1651188	1722247	1672640	1721823	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFUnA	13PF OA	Ave	2856107 2756810	2813319 2518085	2818121	2816787	2737752	2.50 2.50	2.50 2.50	2.50	2.50	2.50
d5-NEtFOSAA	13PF OA	Ave	1846668 1805208	1775996 1568223	1741443	1866342	1785526	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFDoA	13PF OA	Ave	2839024 2894227	3030334 2857578	2991622	3038168	2884956	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFTeDA	13PF OA	Ave	3485874 3434816	3609415 3288566	3481834	3662726	3495868	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFHxDA	13PF OA	Ave	6587541 6364224	6468739 5806225	6640808	6815230	6521815	2.50 2.50	2.50 2.50	2.50	2.50	2.50

Curve Type Legend:

Ave = Average ISTD
AveID = Average isotope dilution

FORM VI
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
 READBACK PERCENT ERROR

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 261835

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/29/2018 06:46 Calibration End Date: 11/29/2018 07:31 Calibration ID: 42526

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-261835/2	2018.11.29PFCICAL_005.d
Level 2	IC 320-261835/3	2018.11.29PFCICAL_006.d
Level 3	IC 320-261835/4	2018.11.29PFCICAL_007.d
Level 4	IC 320-261835/5	2018.11.29PFCICAL_008.d
Level 5	IC 320-261835/6	2018.11.29PFCICAL_009.d
Level 6	IC 320-261835/7	2018.11.29PFCICAL_010.d
Level 7	IC 320-261835/8	2018.11.29PFCICAL_011.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Perfluorobutanoic acid (PFBA)	-2.3 -3.4	-2.8	-0.6	2.1	4.8	2.2	30 30	30	30	30	30	30
Perfluoropentanoic acid (PFPeA)	-0.7 -4.8	2.6	2.3	-3.4	2.8	1.1	30 30	30	30	30	30	30
Perfluorobutanesulfonic acid (PFBS)	1.3 -9.9	1.8	1.2	4.6	1.9	-0.8	30 30	30	30	30	30	30
4:2 FTS	9.3 -0.3	-0.3	2.5	1.2	-6.2	-6.2	30 30	30	30	30	30	30
Perfluorohexanoic acid (PFHxA)	7.8 -7.7	-3.6	1.6	0.5	1.6	-0.2	30 30	30	30	30	30	30
Perfluoropentanesulfonic acid	-4.3 -11.9	2.0	4.5	7.7	1.3	0.6	30 30	30	30	30	30	30
Perfluoroheptanoic acid (PFHpA)	-3.1 -2.4	5.3	2.5	-0.9	0.4	-1.9	30 30	30	30	30	30	30
Perfluorohexanesulfonic acid (PFHxS)	25.5 -4.3	-0.2	-6.5	-7.9	-4.2	-2.5	30 30	30	30	30	30	30
6:2 FTS	-9.7 3.1	1.8	-4.9	3.7	0.8	5.2	30 30	30	30	30	30	30
Perfluoroheptanesulfonic Acid (PFHpS)	-0.8 -5.7	4.6	-0.6	-1.9	4.8	-0.4	30 30	30	30	30	30	30
Perfluorooctanoic acid (PFOA)	14.3 -9.1	2.4	0.0	-3.1	0.5	-5.0	30 30	30	30	30	30	30
Perfluorooctanesulfonic acid (PFOS)	-2.4 1.8	3.7	-2.8	-2.0	1.7	0.0	30 30	30	30	30	30	30
Perfluorononanoic acid (PFNA)	1.1 -0.5	4.7	-3.6	-1.3	1.1	-1.4	30 30	30	30	30	30	30
Perfluorononanesulfonic acid	-6.3 -1.0	5.4	-0.4	-1.5	5.6	-1.9	30 30	30	30	30	30	30
8:2 FTS	-6.9 -0.9	-1.4	10.2	-0.1	-0.7	-0.2	30 30	30	30	30	30	30

FORM VI
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
 READBACK PERCENT ERROR

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 261835
 SDG No.: _____
 Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N
 Calibration Start Date: 11/29/2018 06:46 Calibration End Date: 11/29/2018 07:31 Calibration ID: 42526

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Perfluorodecanoic acid (PFDA)	-4.7 -2.2	1.6	4.5	-4.2	0.6	4.3	30 30	30	30	30	30	30
Perfluorooctanesulfonamide (FOSA)	5.0 -5.4	3.6	-4.1	0.6	1.2	-0.9	30 30	30	30	30	30	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	-15.8 4.6	-5.0	-0.2	6.8	-2.4	12.0	30 30	30	30	30	30	30
Perfluorodecanesulfonic acid (PFDS)	-2.3 -1.7	3.6	-3.3	-3.8	5.6	2.0	30 30	30	30	30	30	30
Perfluoroundecanoic acid (PFUnA)	3.3 1.4	7.9	-4.7	-7.3	0.0	-0.5	30 30	30	30	30	30	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	-6.5 7.7	11.7	-1.5	-7.7	0.7	-4.3	30 30	30	30	30	30	30
Perfluorododecanoic acid (PFDoA)	9.7 -5.2	4.0	-5.8	-4.8	-1.5	3.6	30 30	30	30	30	30	30
Perfluorotridecanoic acid (PFTriA)	1.2 -6.3	-3.2	-3.6	1.2	8.0	2.6	30 30	30	30	30	30	30
Perfluorotetradecanoic acid (PFTeA)	2.6 -1.0	1.7	0.5	-2.1	-1.0	-0.7	30 30	30	30	30	30	30

Calibration

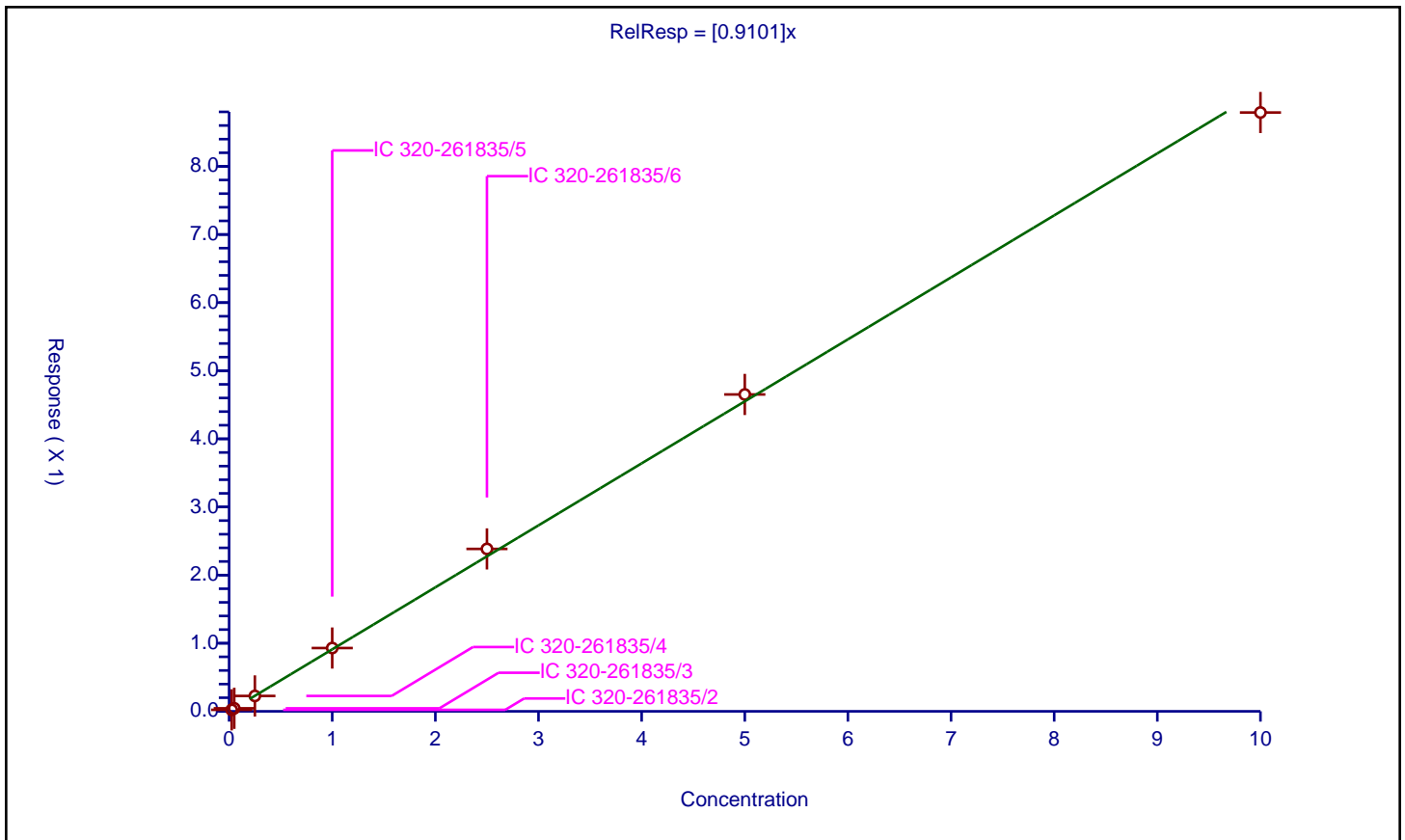
/ Perfluorobutanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9101

Error Coefficients	
Standard Error:	12000000
Relative Standard Error:	3.1
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025	0.022222	2.5	7386574.0	0.888869	Y
2	IC 320-261835/3	0.05	0.044237	2.5	7384438.0	0.884739	Y
3	IC 320-261835/4	0.25	0.226083	2.5	7323675.0	0.904333	Y
4	IC 320-261835/5	1.0	0.929352	2.5	7505630.0	0.929352	Y
5	IC 320-261835/6	2.5	2.384183	2.5	7319376.0	0.953673	Y
6	IC 320-261835/7	5.0	4.651918	2.5	7393124.0	0.930384	Y
7	IC 320-261835/8	10.0	8.790914	2.5	7078750.0	0.879091	Y



Calibration

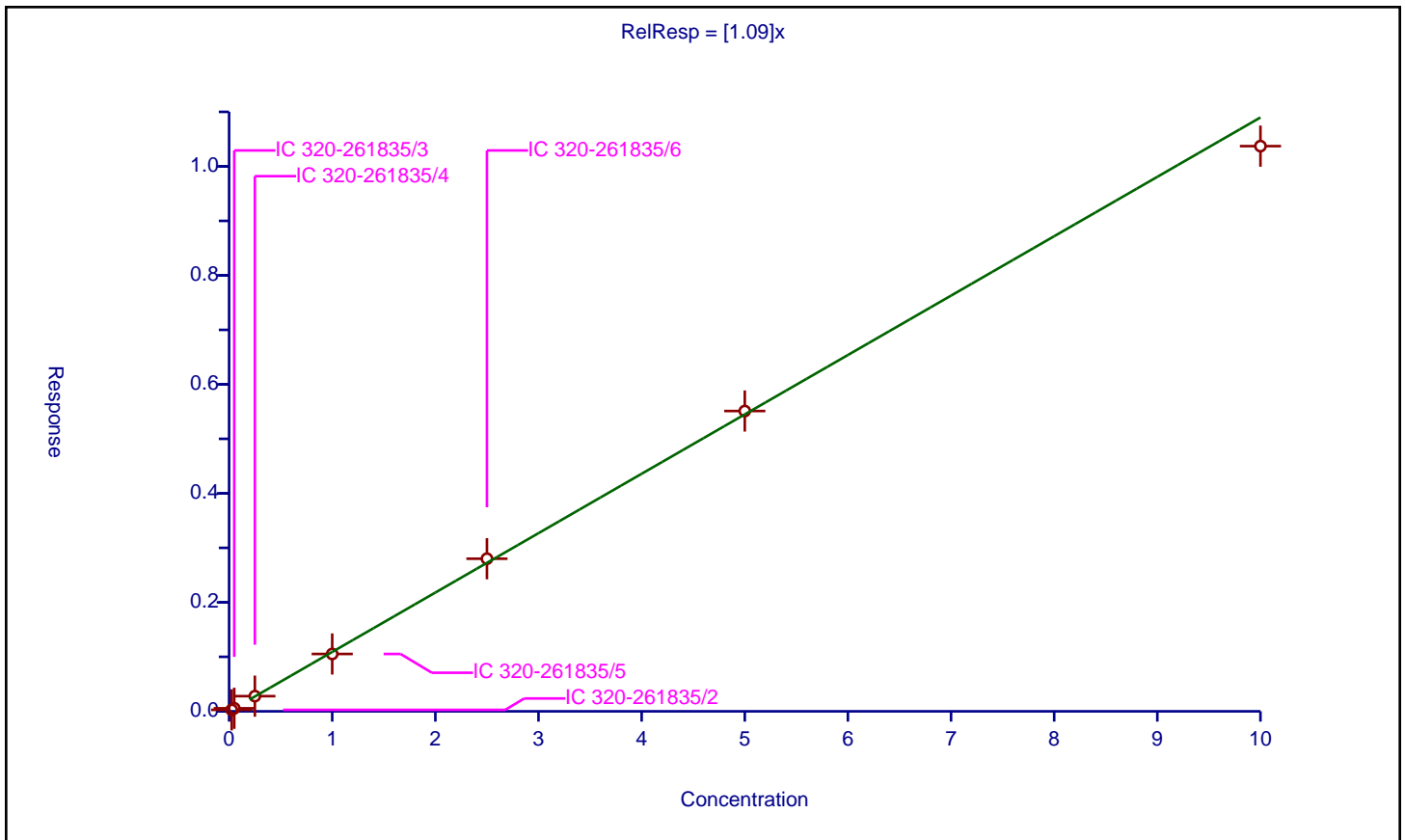
/ Perfluoropentanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.09

Error Coefficients	
Standard Error:	8760000
Relative Standard Error:	3.1
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025	0.027059	2.5	4723734.0	1.082343	Y
2	IC 320-261835/3	0.05	0.055934	2.5	4578962.0	1.118671	Y
3	IC 320-261835/4	0.25	0.278778	2.5	4615307.0	1.115111	Y
4	IC 320-261835/5	1.0	1.052831	2.5	4810976.0	1.052831	Y
5	IC 320-261835/6	2.5	2.800747	2.5	4590990.0	1.120299	Y
6	IC 320-261835/7	5.0	5.510622	2.5	4668056.0	1.102124	Y
7	IC 320-261835/8	10.0	10.371715	2.5	4340201.0	1.037171	Y



Calibration

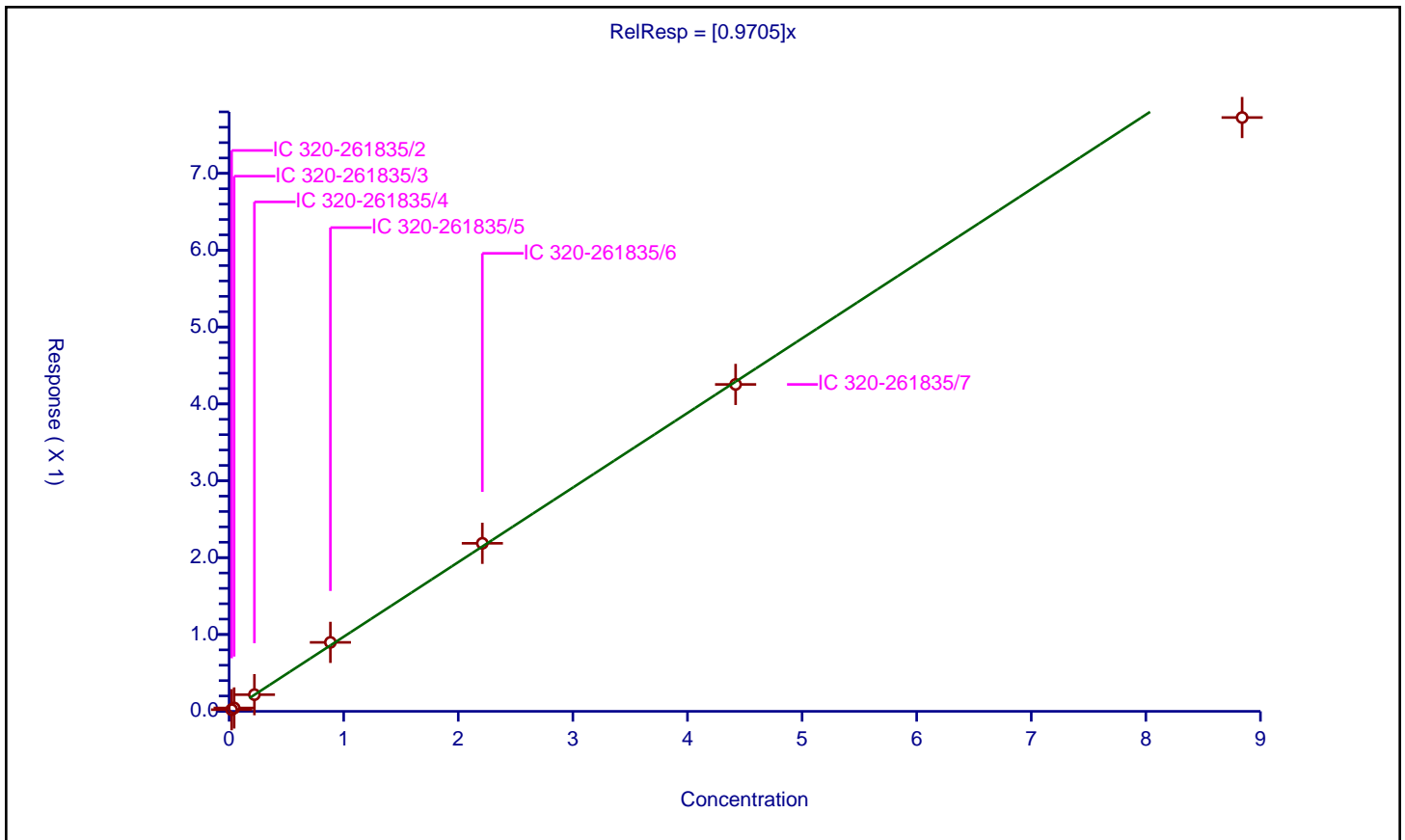
/ Perfluorobutanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9705

Error Coefficients	
Standard Error:	10500000
Relative Standard Error:	4.7
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.0221	0.021717	2.325	6477164.0	0.982655	Y
2	IC 320-261835/3	0.0442	0.043657	2.325	6428444.0	0.987721	Y
3	IC 320-261835/4	0.221	0.217107	2.325	6309899.0	0.982386	Y
4	IC 320-261835/5	0.884	0.897374	2.325	6661324.0	1.015129	Y
5	IC 320-261835/6	2.21	2.186448	2.325	6786470.0	0.989343	Y
6	IC 320-261835/7	4.42	4.25356	2.325	6627498.0	0.962344	Y
7	IC 320-261835/8	8.84	7.726688	2.325	6489578.0	0.87406	Y



Calibration

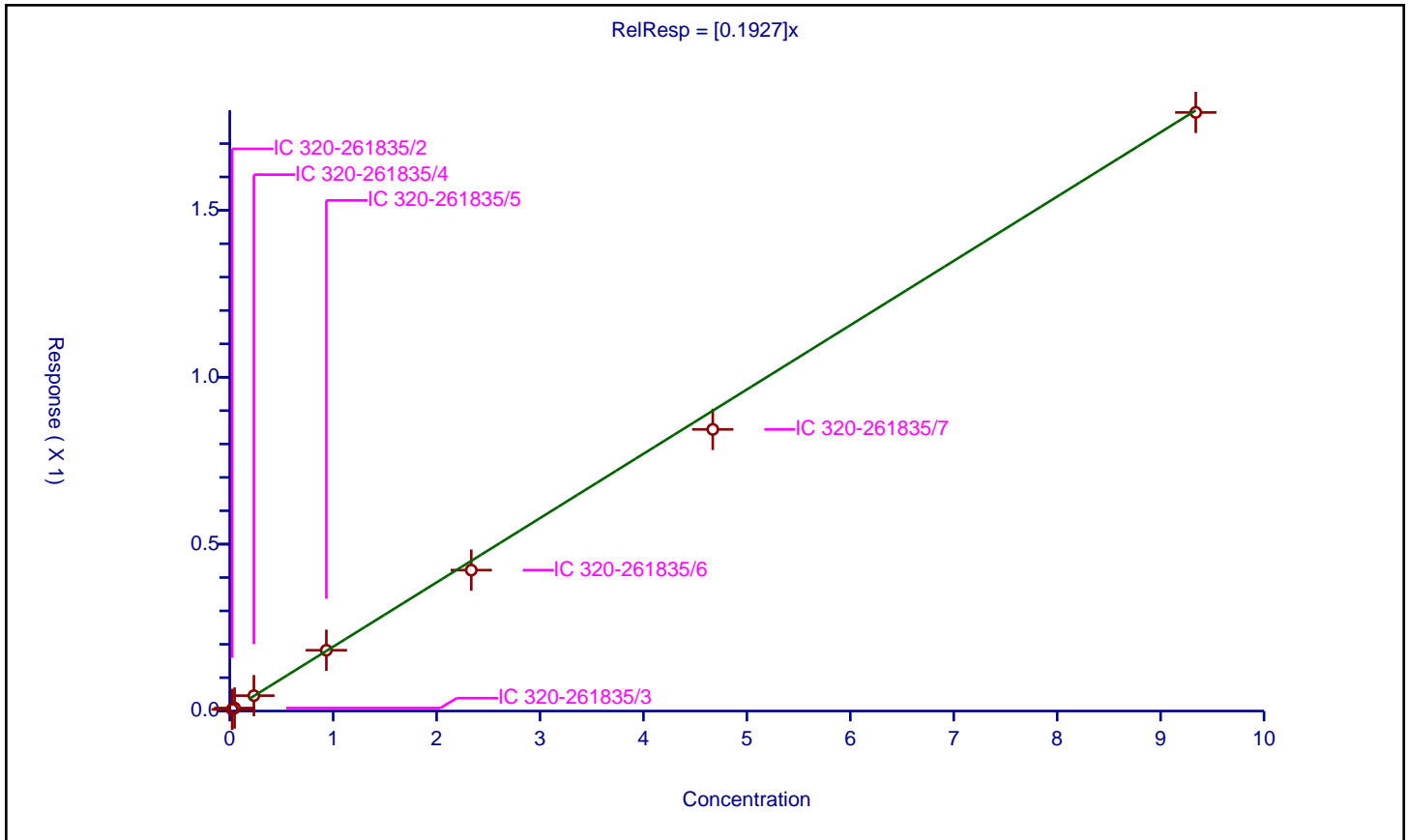
/ 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1927

Error Coefficients	
Standard Error:	2330000
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.02335	0.004915	2.325	6477164.0	0.210499	Y
2	IC 320-261835/3	0.0467	0.008975	2.325	6428444.0	0.192175	Y
3	IC 320-261835/4	0.2335	0.046114	2.325	6309899.0	0.19749	Y
4	IC 320-261835/5	0.934	0.182137	2.325	6661324.0	0.195007	Y
5	IC 320-261835/6	2.335	0.422126	2.325	6786470.0	0.180782	Y
6	IC 320-261835/7	4.67	0.843751	2.325	6627498.0	0.180675	Y
7	IC 320-261835/8	9.34	1.793354	2.325	6489578.0	0.192008	Y



Calibration

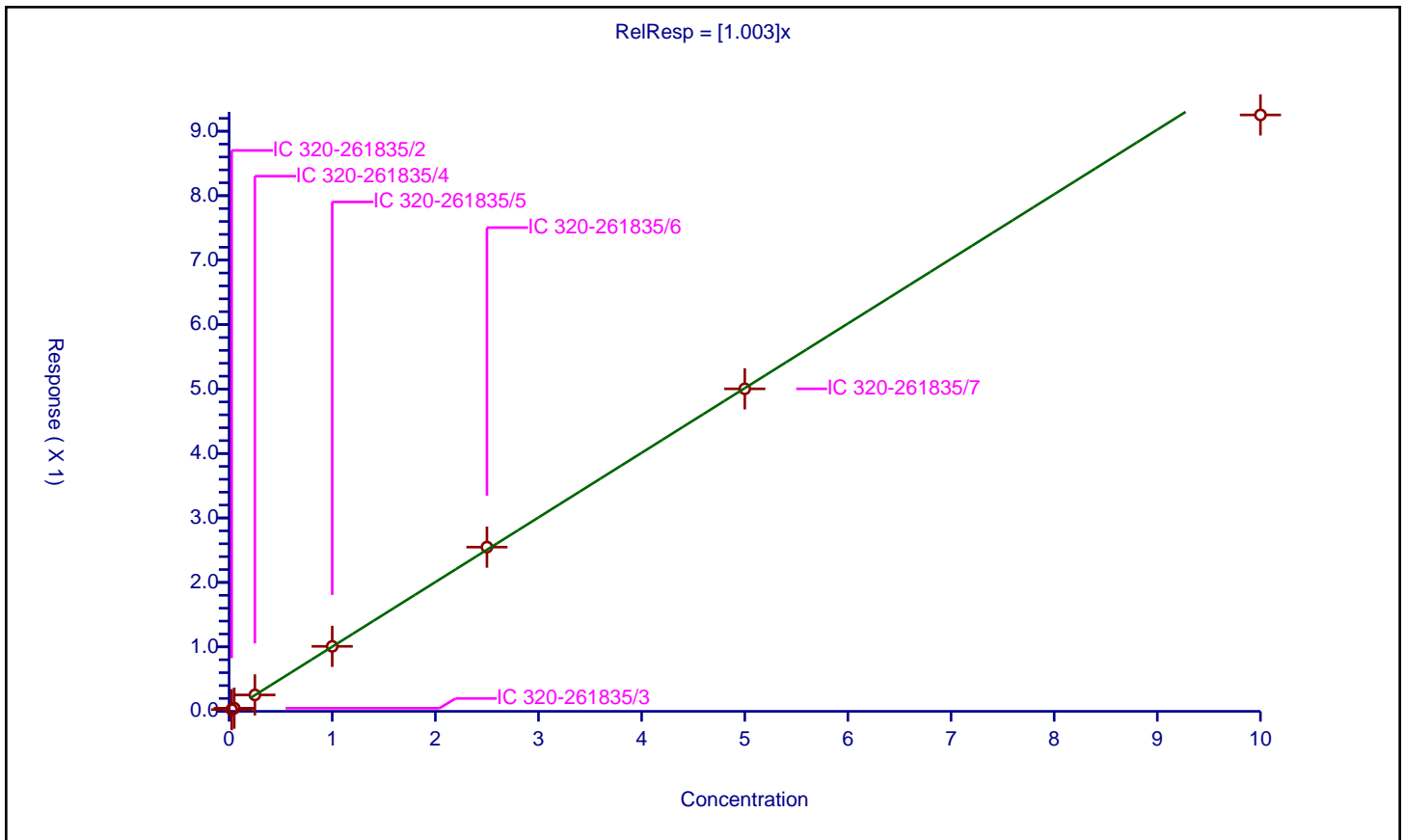
/ Perfluorohexanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.003

Error Coefficients	
Standard Error:	8430000
Relative Standard Error:	4.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025	0.027028	2.5	4850277.0	1.081114	Y
2	IC 320-261835/3	0.05	0.048309	2.5	4970004.0	0.966176	Y
3	IC 320-261835/4	0.25	0.254717	2.5	4882930.0	1.01887	Y
4	IC 320-261835/5	1.0	1.007965	2.5	5038683.0	1.007965	Y
5	IC 320-261835/6	2.5	2.547706	2.5	4819322.0	1.019083	Y
6	IC 320-261835/7	5.0	5.003342	2.5	4946631.0	1.000668	Y
7	IC 320-261835/8	10.0	9.252858	2.5	4675743.0	0.925286	Y



Calibration

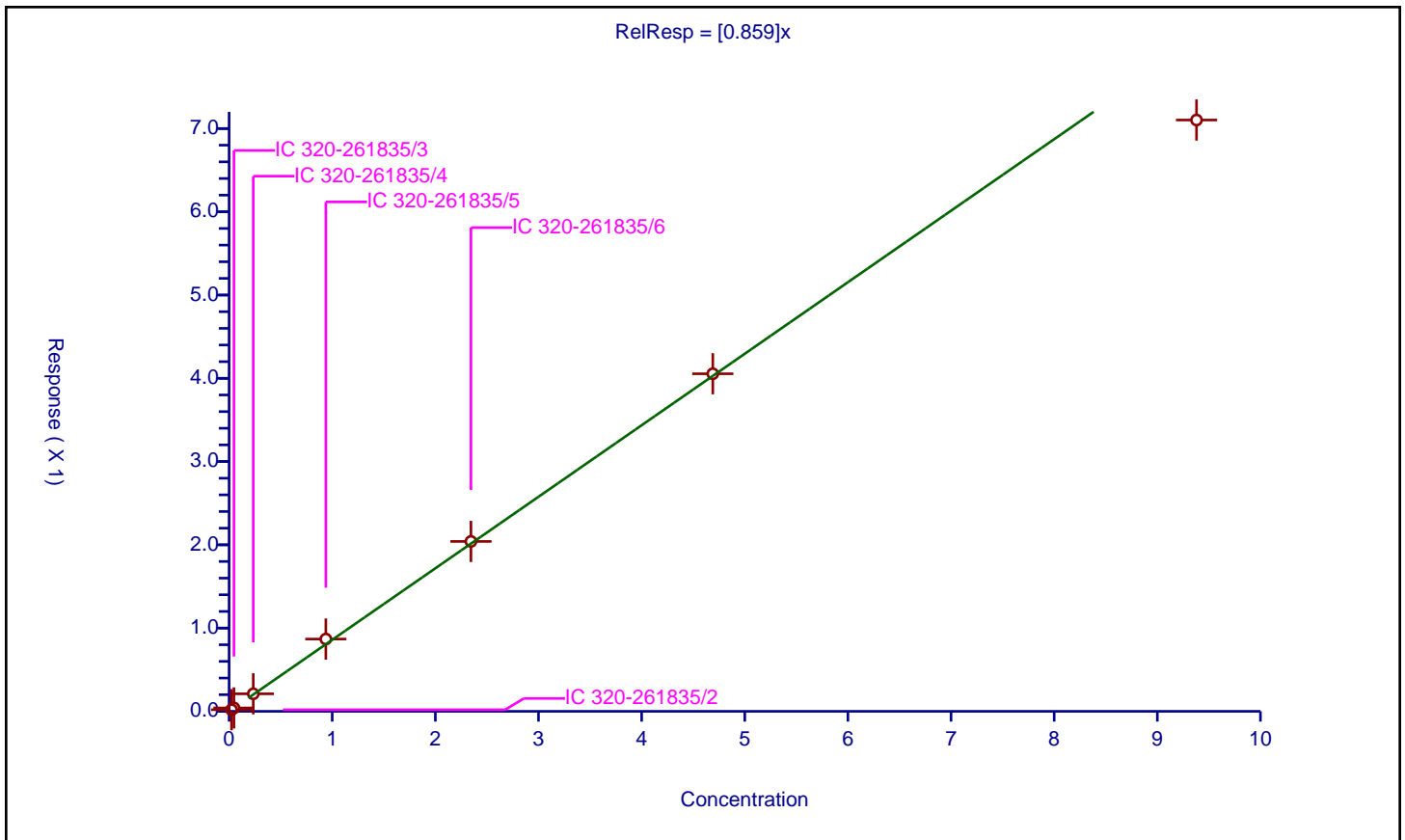
/ Perfluoropentanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.859

Error Coefficients	
Standard Error:	9730000
Relative Standard Error:	6.4
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.02345	0.019287	2.325	6477164.0	0.822455	Y
2	IC 320-261835/3	0.0469	0.041076	2.325	6428444.0	0.875821	Y
3	IC 320-261835/4	0.2345	0.210404	2.325	6309899.0	0.897247	Y
4	IC 320-261835/5	0.938	0.868057	2.325	6661324.0	0.925434	Y
5	IC 320-261835/6	2.345	2.040836	2.325	6786470.0	0.870292	Y
6	IC 320-261835/7	4.69	4.054613	2.325	6627498.0	0.864523	Y
7	IC 320-261835/8	9.38	7.102312	2.325	6489578.0	0.757176	Y



Calibration

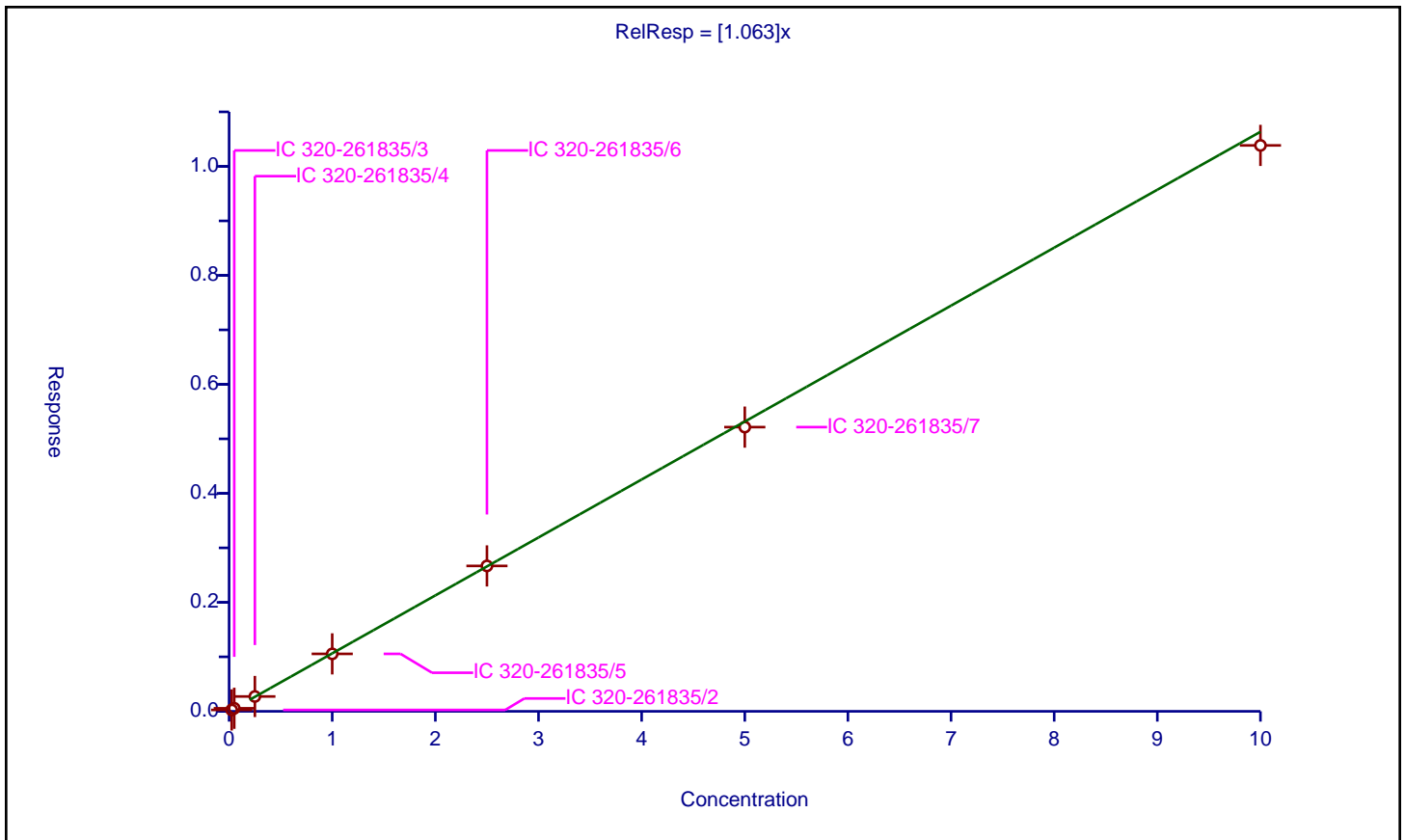
/ Perfluoroheptanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.063

Error Coefficients	
Standard Error:	8690000
Relative Standard Error:	3.0
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025	0.025775	2.5	4864514.0	1.031018	Y
2	IC 320-261835/3	0.05	0.055992	2.5	4837987.0	1.119836	Y
3	IC 320-261835/4	0.25	0.272548	2.5	4972673.0	1.09019	Y
4	IC 320-261835/5	1.0	1.054437	2.5	4988562.0	1.054437	Y
5	IC 320-261835/6	2.5	2.668566	2.5	4817159.0	1.067426	Y
6	IC 320-261835/7	5.0	5.215434	2.5	4777339.0	1.043087	Y
7	IC 320-261835/8	10.0	10.384641	2.5	4326076.0	1.038464	Y



Calibration

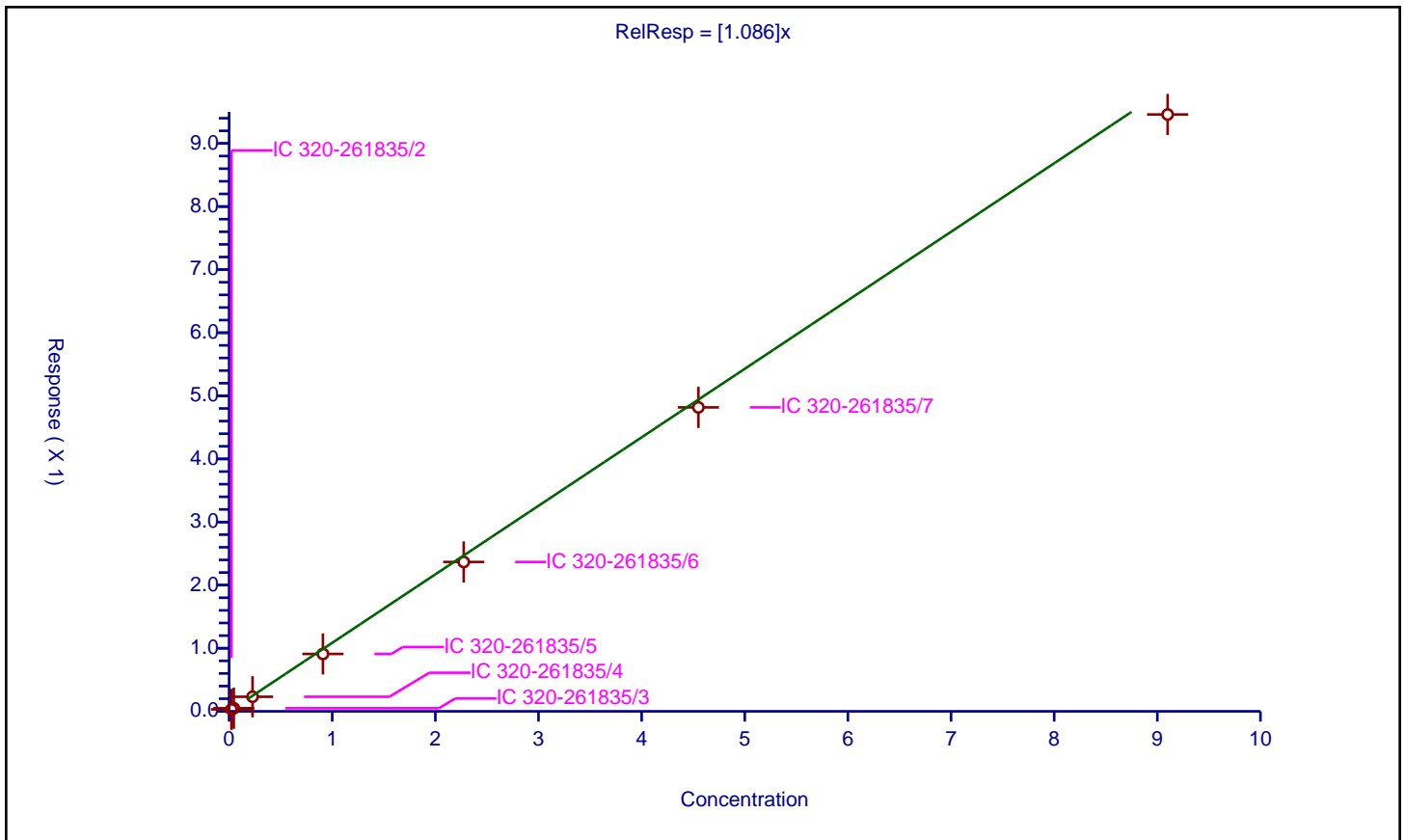
/ Perfluorohexanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.086

Error Coefficients	
Standard Error:	8920000
Relative Standard Error:	11.5
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.02275	0.030997	2.365	5033594.0	1.362525	Y
2	IC 320-261835/3	0.0455	0.049303	2.365	5512544.0	1.083576	Y
3	IC 320-261835/4	0.2275	0.231054	2.365	5280390.0	1.015623	Y
4	IC 320-261835/5	0.91	0.909684	2.365	5461569.0	0.999653	Y
5	IC 320-261835/6	2.275	2.366926	2.365	5311560.0	1.040407	Y
6	IC 320-261835/7	4.55	4.816706	2.365	5052099.0	1.058617	Y
7	IC 320-261835/8	9.1	9.458557	2.365	4602353.0	1.039402	Y



Calibration

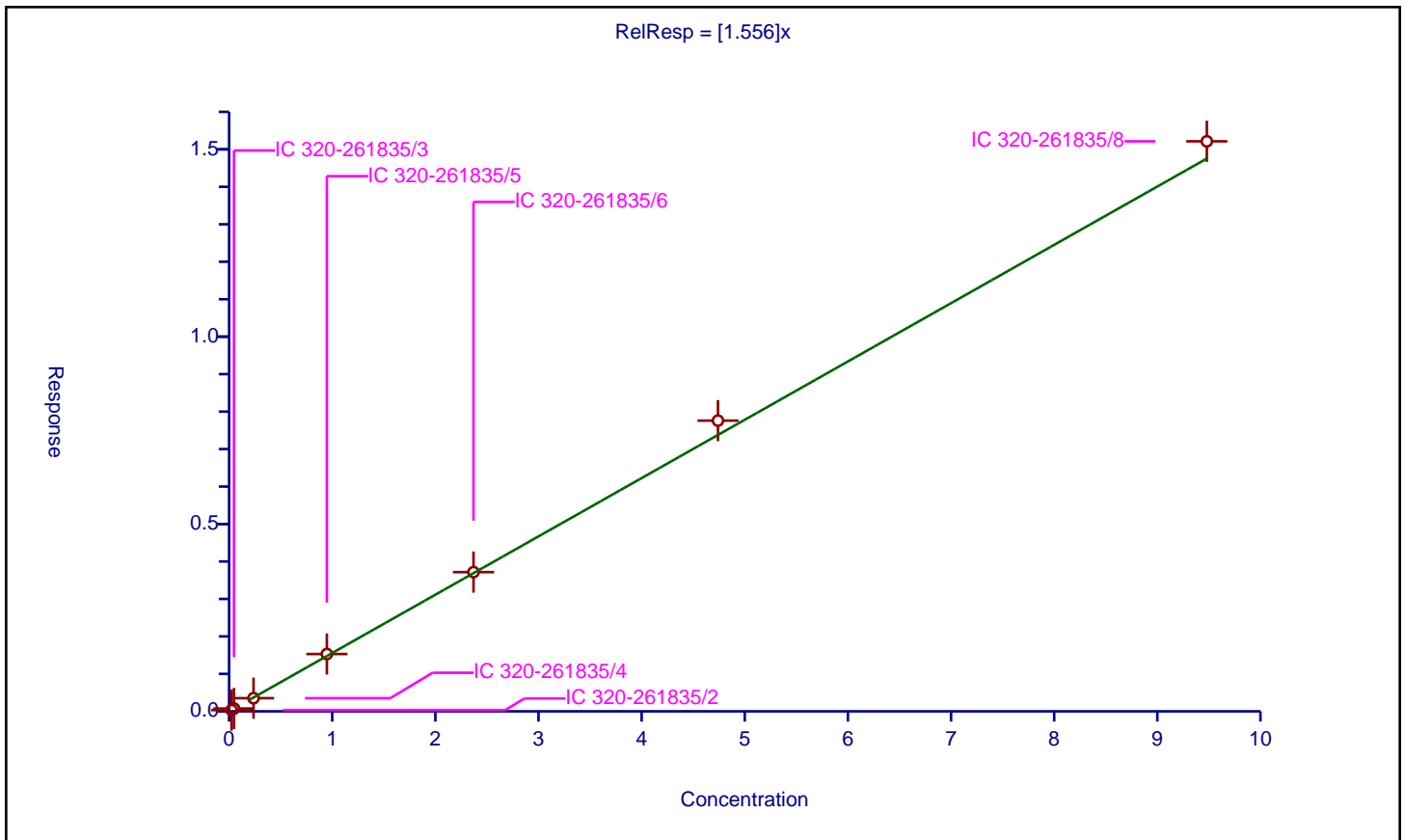
/ 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.556

Error Coefficients	
Standard Error:	2220000
Relative Standard Error:	5.3
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.0237	0.033317	2.375	823121.0	1.405791	Y
2	IC 320-261835/3	0.0474	0.075107	2.375	813210.0	1.584539	Y
3	IC 320-261835/4	0.237	0.350849	2.375	826416.0	1.480375	Y
4	IC 320-261835/5	0.948	1.530047	2.375	835878.0	1.613974	Y
5	IC 320-261835/6	2.37	3.716306	2.375	799833.0	1.568062	Y
6	IC 320-261835/7	4.74	7.759374	2.375	800502.0	1.636999	Y
7	IC 320-261835/8	9.48	15.214325	2.375	711627.0	1.604887	Y



Calibration

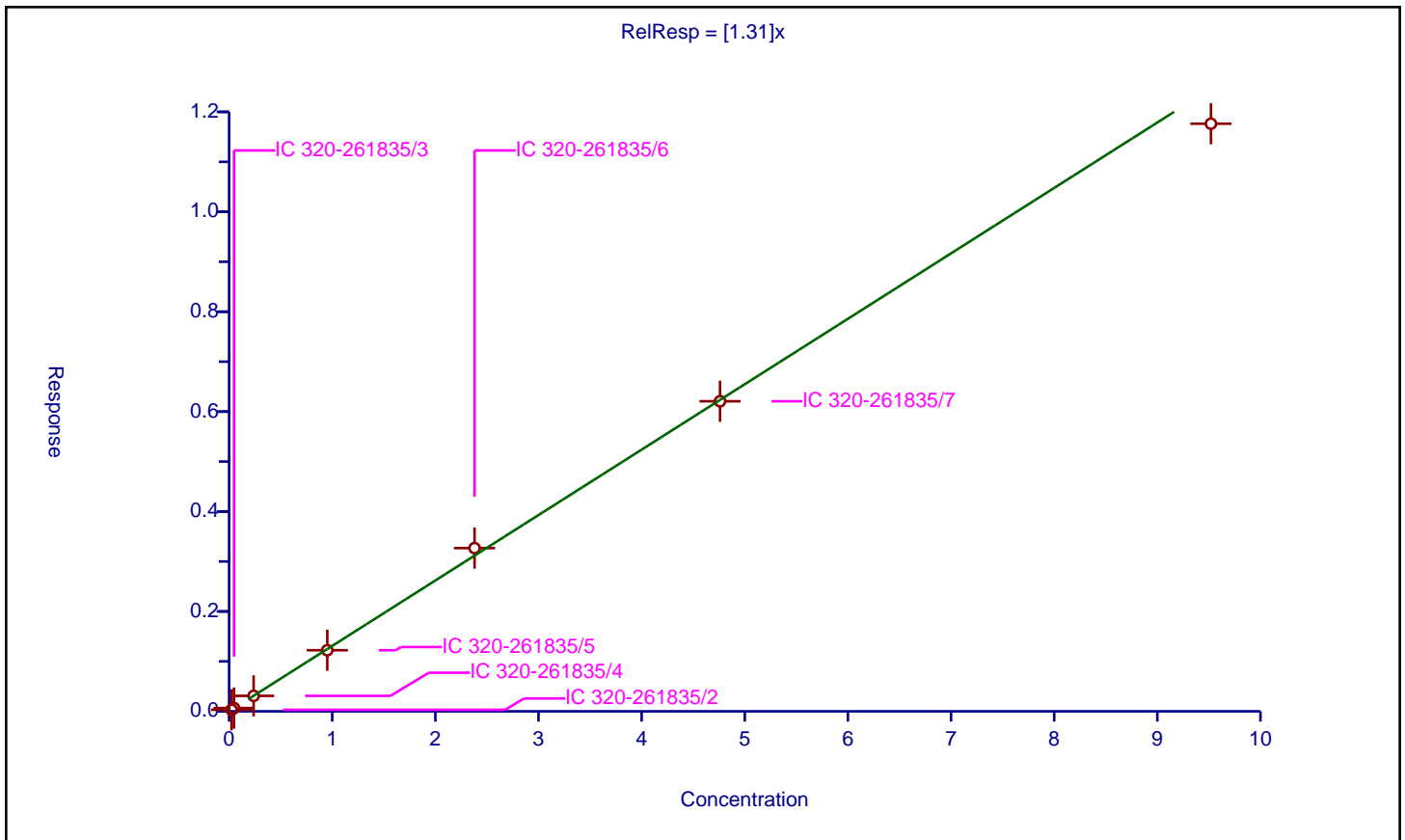
/ Perfluoroheptanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.31

Error Coefficients	
Standard Error:	7680000
Relative Standard Error:	3.7
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.0238	0.030917	2.39	3475238.0	1.299016	Y
2	IC 320-261835/3	0.0476	0.065218	2.39	3319786.0	1.370128	Y
3	IC 320-261835/4	0.238	0.309682	2.39	3440581.0	1.301185	Y
4	IC 320-261835/5	0.952	1.223137	2.39	3625860.0	1.284808	Y
5	IC 320-261835/6	2.38	3.267358	2.39	3437024.0	1.372839	Y
6	IC 320-261835/7	4.76	6.207089	2.39	3410756.0	1.30401	Y
7	IC 320-261835/8	9.52	11.763226	2.39	3210717.0	1.235633	Y



Calibration

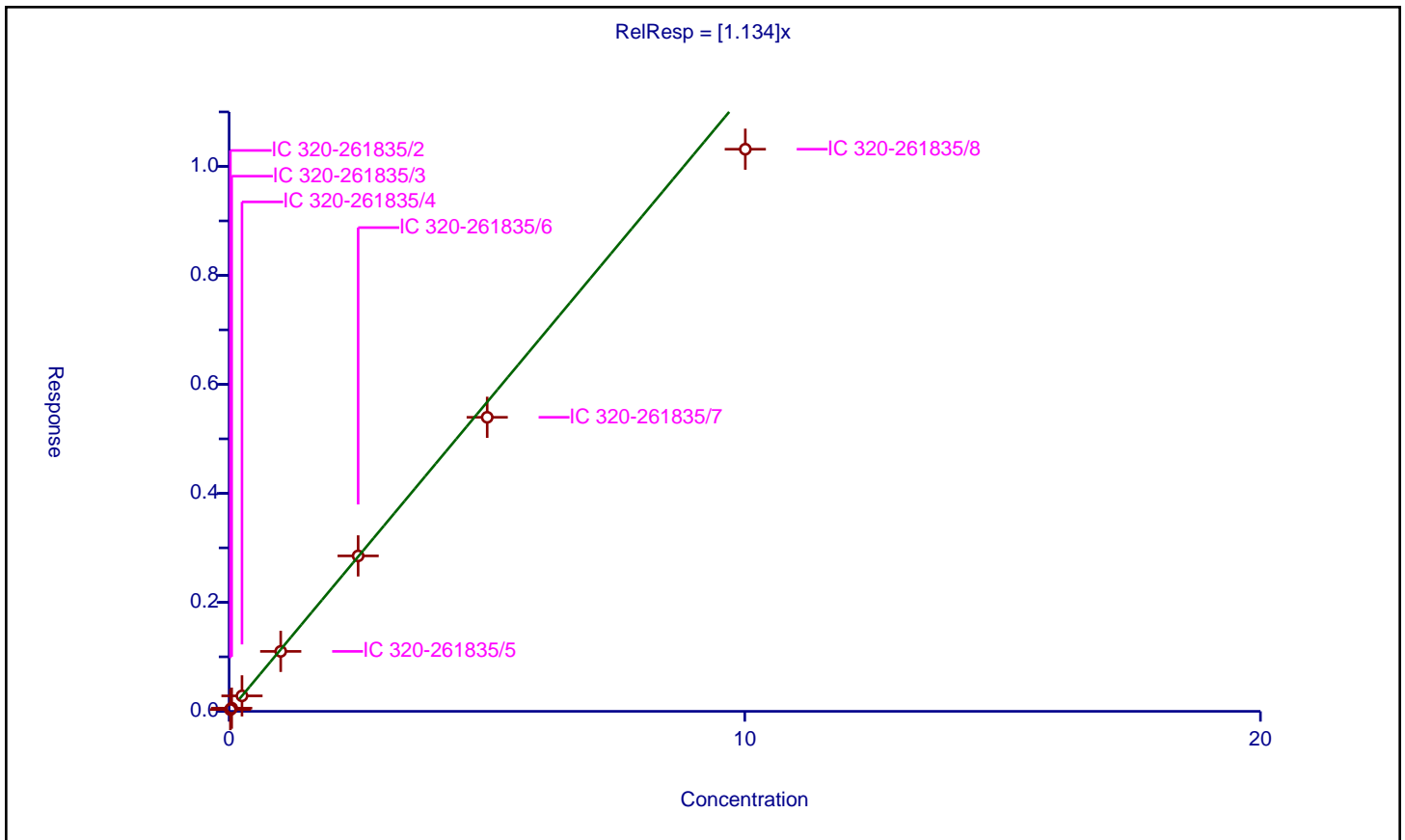
/ Perfluorooctanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.134

Error Coefficients	
Standard Error:	8740000
Relative Standard Error:	7.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025025	0.032432	2.5	4805875.0	1.29597	Y
2	IC 320-261835/3	0.05005	0.058112	2.5	4908199.0	1.161088	Y
3	IC 320-261835/4	0.25025	0.283978	2.5	4633463.0	1.134776	Y
4	IC 320-261835/5	1.001	1.100405	2.5	4878940.0	1.099306	Y
5	IC 320-261835/6	2.5025	2.852505	2.5	4546414.0	1.139862	Y
6	IC 320-261835/7	5.005	5.395481	2.5	4644760.0	1.078018	Y
7	IC 320-261835/8	10.01	10.314777	2.5	4374502.0	1.030447	Y



Calibration

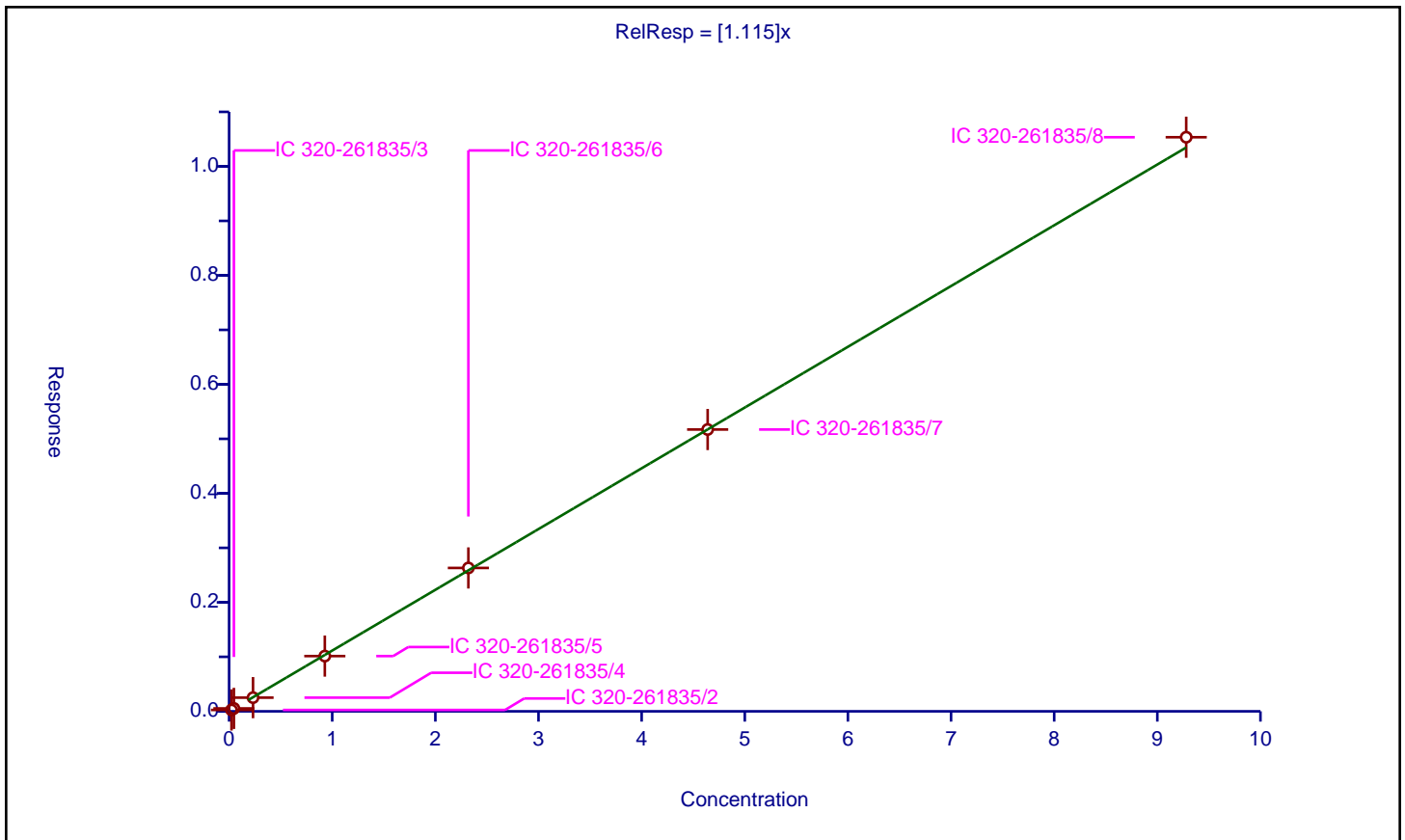
/ Perfluorooctanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.115

Error Coefficients	
Standard Error:	6730000
Relative Standard Error:	2.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.0232	0.025241	2.39	3475238.0	1.087965	Y
2	IC 320-261835/3	0.0464	0.053646	2.39	3319786.0	1.156164	Y
3	IC 320-261835/4	0.232	0.251343	2.39	3440581.0	1.083376	Y
4	IC 320-261835/5	0.928	1.013975	2.39	3625860.0	1.092645	Y
5	IC 320-261835/6	2.32	2.631157	2.39	3437024.0	1.13412	Y
6	IC 320-261835/7	4.64	5.171677	2.39	3410756.0	1.114586	Y
7	IC 320-261835/8	9.28	10.535036	2.39	3210717.0	1.135241	Y



Calibration

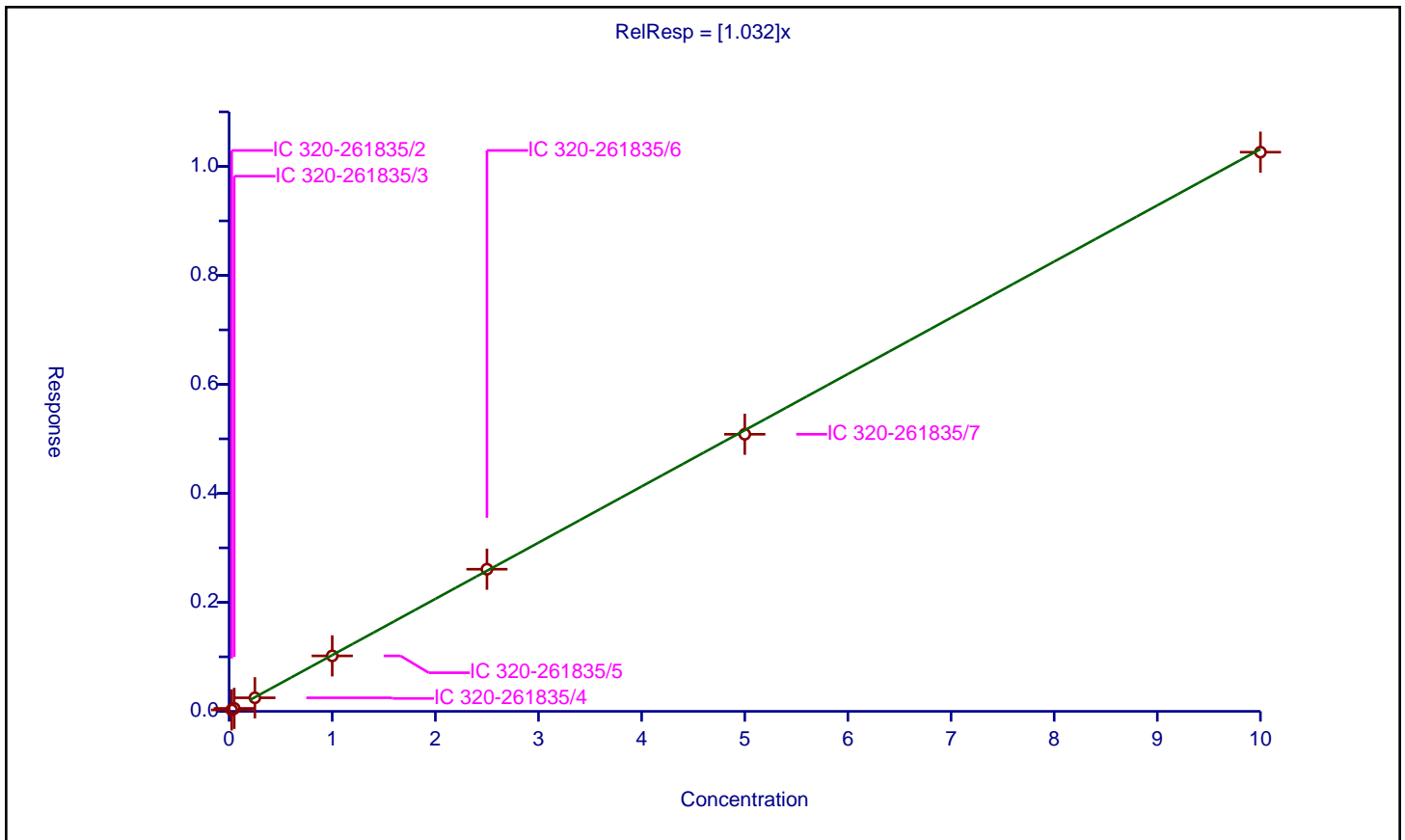
/ Perfluorononanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.032

Error Coefficients	
Standard Error:	7140000
Relative Standard Error:	2.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025	0.026063	2.5	3890167.0	1.0425	Y
2	IC 320-261835/3	0.05	0.054024	2.5	3974069.0	1.080479	Y
3	IC 320-261835/4	0.25	0.248669	2.5	3953315.0	0.994677	Y
4	IC 320-261835/5	1.0	1.017803	2.5	4167325.0	1.017803	Y
5	IC 320-261835/6	2.5	2.60787	2.5	3904861.0	1.043148	Y
6	IC 320-261835/7	5.0	5.084052	2.5	3960946.0	1.01681	Y
7	IC 320-261835/8	10.0	10.260907	2.5	3627582.0	1.026091	Y



Calibration

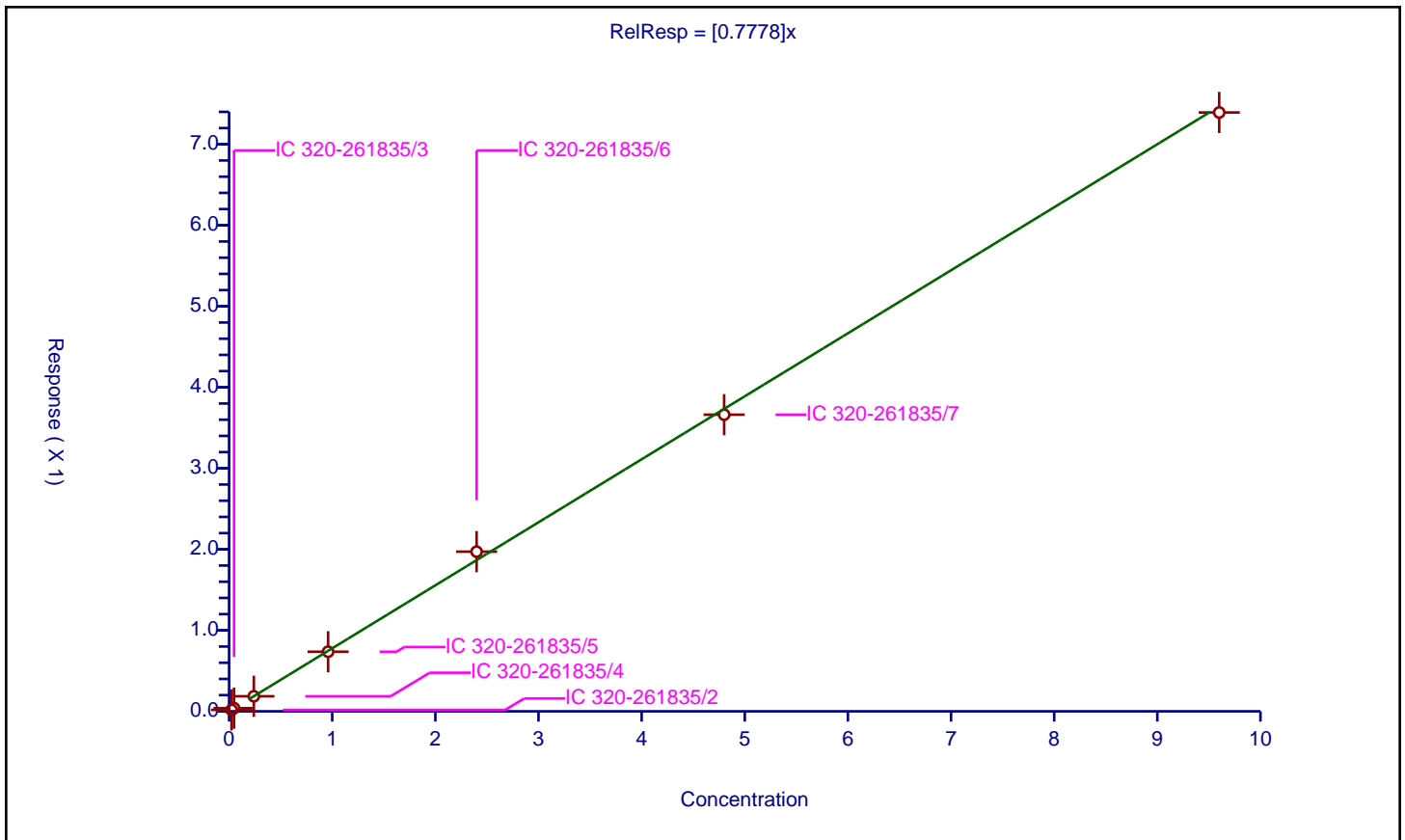
/ Perfluorononanesulfonic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7778

Error Coefficients	
Standard Error:	4750000
Relative Standard Error:	4.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.024	0.017498	2.39	3475238.0	0.729101	Y
2	IC 320-261835/3	0.048	0.039353	2.39	3319786.0	0.819861	Y
3	IC 320-261835/4	0.24	0.186008	2.39	3440581.0	0.775033	Y
4	IC 320-261835/5	0.96	0.73586	2.39	3625860.0	0.766521	Y
5	IC 320-261835/6	2.4	1.971158	2.39	3437024.0	0.821316	Y
6	IC 320-261835/7	4.8	3.662047	2.39	3410756.0	0.762927	Y
7	IC 320-261835/8	9.6	7.392462	2.39	3210717.0	0.770048	Y



Calibration

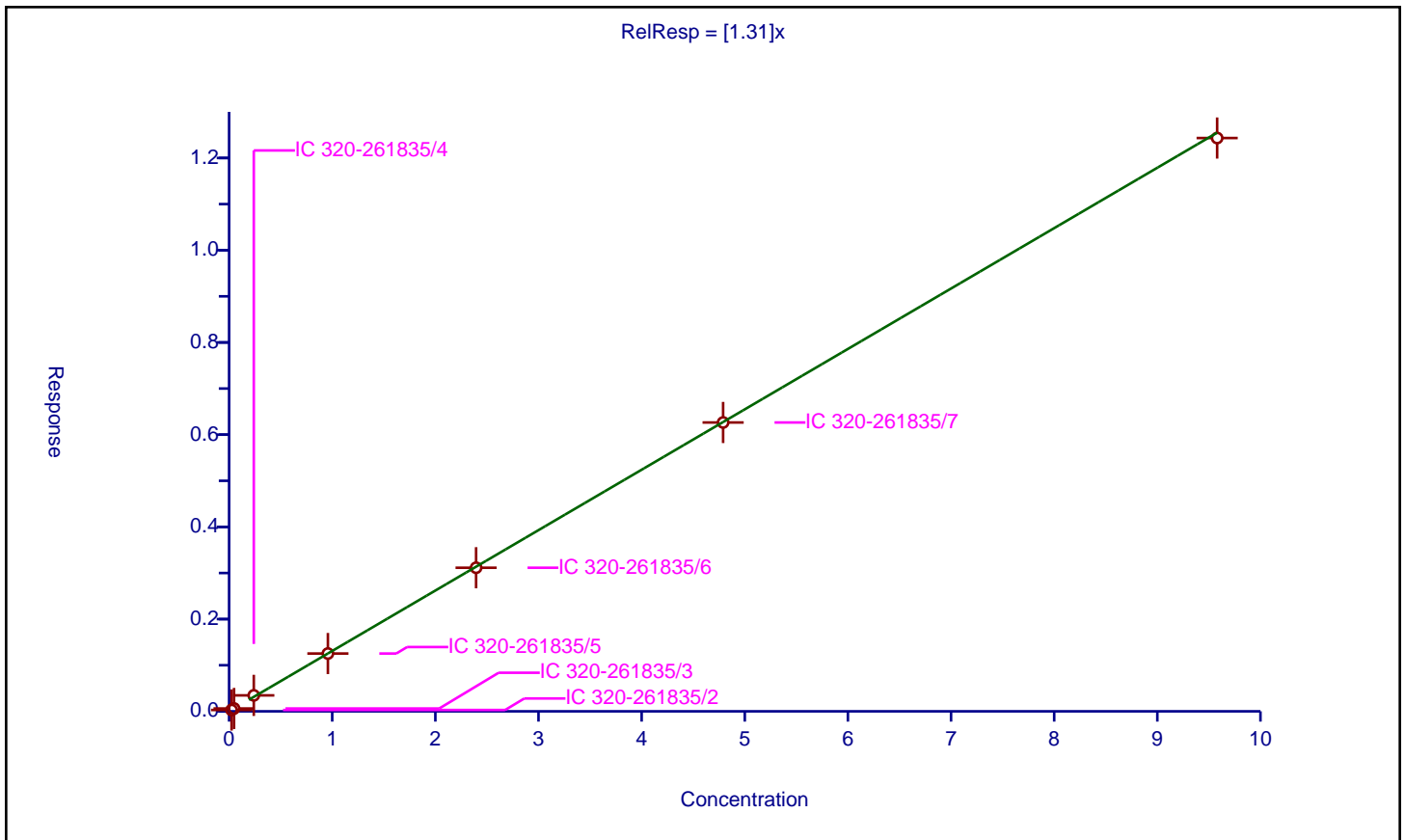
/ 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.31

Error Coefficients	
Standard Error:	2070000
Relative Standard Error:	5.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.02395	0.029216	2.395	879504.0	1.219892	Y
2	IC 320-261835/3	0.0479	0.061839	2.395	843874.0	1.29101	Y
3	IC 320-261835/4	0.2395	0.345866	2.395	826435.0	1.444118	Y
4	IC 320-261835/5	0.958	1.253419	2.395	938184.0	1.308371	Y
5	IC 320-261835/6	2.395	3.113791	2.395	876218.0	1.300122	Y
6	IC 320-261835/7	4.79	6.263933	2.395	899152.0	1.30771	Y
7	IC 320-261835/8	9.58	12.432953	2.395	831856.0	1.297803	Y



Calibration

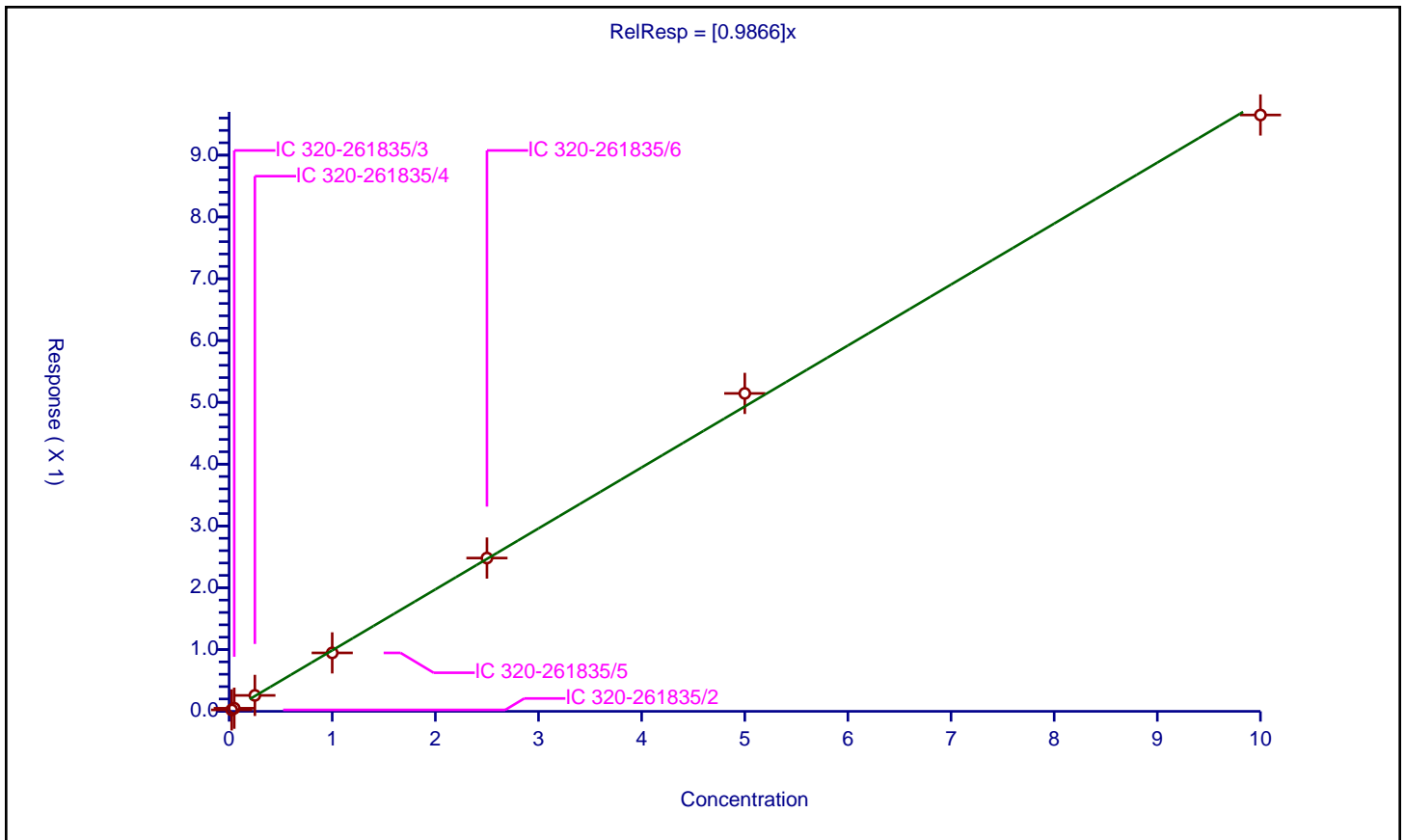
/ Perfluorodecanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9866

Error Coefficients	
Standard Error:	5910000
Relative Standard Error:	3.8
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025	0.023512	2.5	3600777.0	0.940491	Y
2	IC 320-261835/3	0.05	0.050143	2.5	3453391.0	1.002855	Y
3	IC 320-261835/4	0.25	0.257761	2.5	3335607.0	1.031045	Y
4	IC 320-261835/5	1.0	0.945506	2.5	3554030.0	0.945506	Y
5	IC 320-261835/6	2.5	2.480635	2.5	3492597.0	0.992254	Y
6	IC 320-261835/7	5.0	5.144835	2.5	3429499.0	1.028967	Y
7	IC 320-261835/8	10.0	9.649781	2.5	3128982.0	0.964978	Y



Calibration

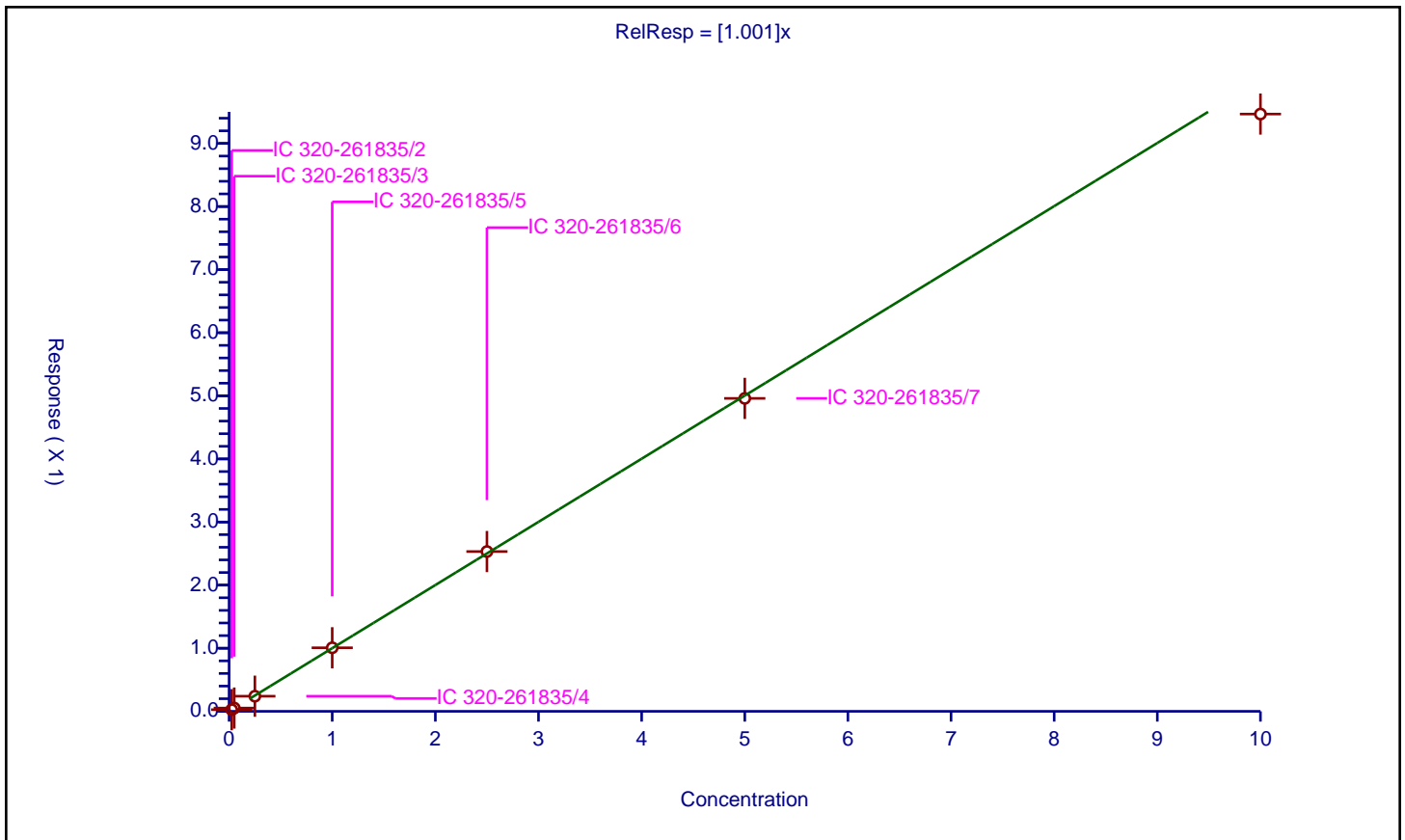
/ Perfluorooctanesulfonamide

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.001

Error Coefficients	
Standard Error:	8980000
Relative Standard Error:	3.8
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025	0.026267	2.5	5304468.0	1.05068	Y
2	IC 320-261835/3	0.05	0.051833	2.5	5291146.0	1.036666	Y
3	IC 320-261835/4	0.25	0.239854	2.5	5364881.0	0.959417	Y
4	IC 320-261835/5	1.0	1.007243	2.5	5477482.0	1.007243	Y
5	IC 320-261835/6	2.5	2.532468	2.5	5335678.0	1.012987	Y
6	IC 320-261835/7	5.0	4.959613	2.5	5350524.0	0.991923	Y
7	IC 320-261835/8	10.0	9.465433	2.5	4844768.0	0.946543	Y



Calibration

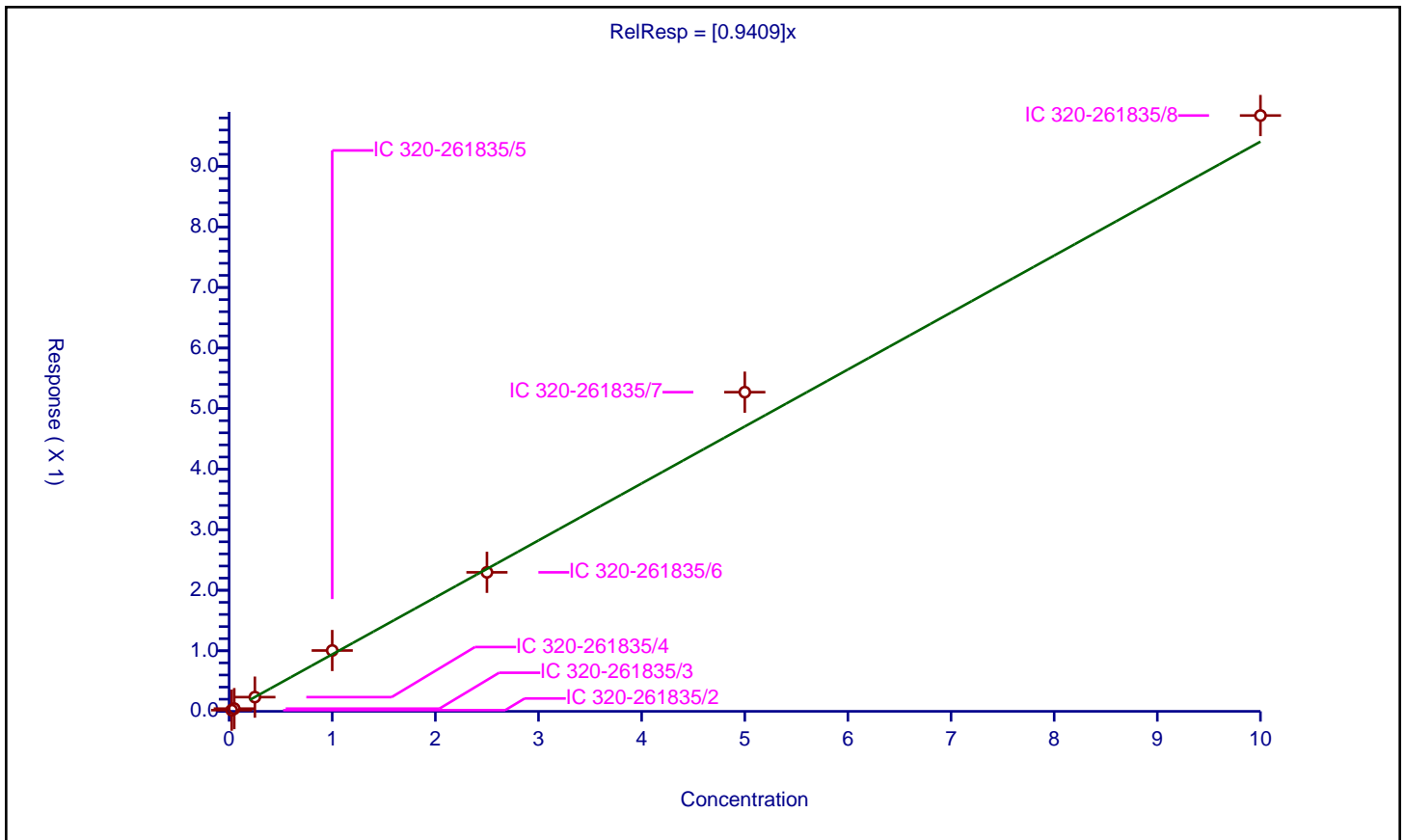
/ N-methylperfluorooctanesulfonamidoacetic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9409

Error Coefficients	
Standard Error:	3070000
Relative Standard Error:	9.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025	0.019809	2.5	1649399.0	0.792349	Y
2	IC 320-261835/3	0.05	0.044674	2.5	1699195.0	0.893482	Y
3	IC 320-261835/4	0.25	0.234799	2.5	1722247.0	0.939197	Y
4	IC 320-261835/5	1.0	1.004699	2.5	1672640.0	1.004699	Y
5	IC 320-261835/6	2.5	2.295847	2.5	1721823.0	0.918339	Y
6	IC 320-261835/7	5.0	5.270958	2.5	1595051.0	1.054192	Y
7	IC 320-261835/8	10.0	9.84003	2.5	1651188.0	0.984003	Y



Calibration

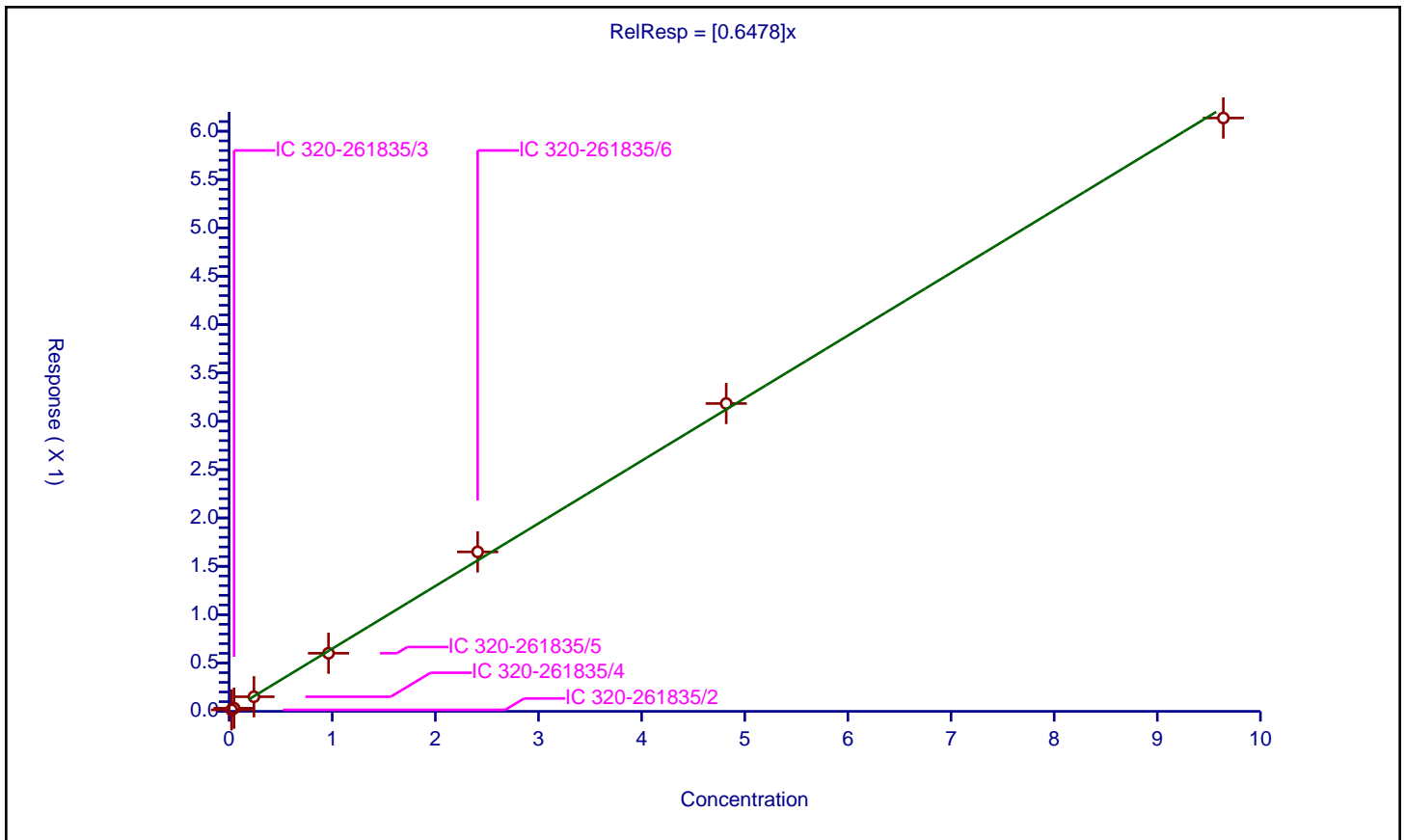
/ Perfluorodecanesulfonic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6478

Error Coefficients	
Standard Error:	3980000
Relative Standard Error:	3.7
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.0241	0.015254	2.39	3475238.0	0.632962	Y
2	IC 320-261835/3	0.0482	0.03234	2.39	3319786.0	0.67095	Y
3	IC 320-261835/4	0.241	0.150896	2.39	3440581.0	0.626125	Y
4	IC 320-261835/5	0.964	0.600751	2.39	3625860.0	0.623186	Y
5	IC 320-261835/6	2.41	1.649013	2.39	3437024.0	0.684238	Y
6	IC 320-261835/7	4.82	3.183882	2.39	3410756.0	0.660556	Y
7	IC 320-261835/8	9.64	6.136522	2.39	3210717.0	0.636569	Y



Calibration

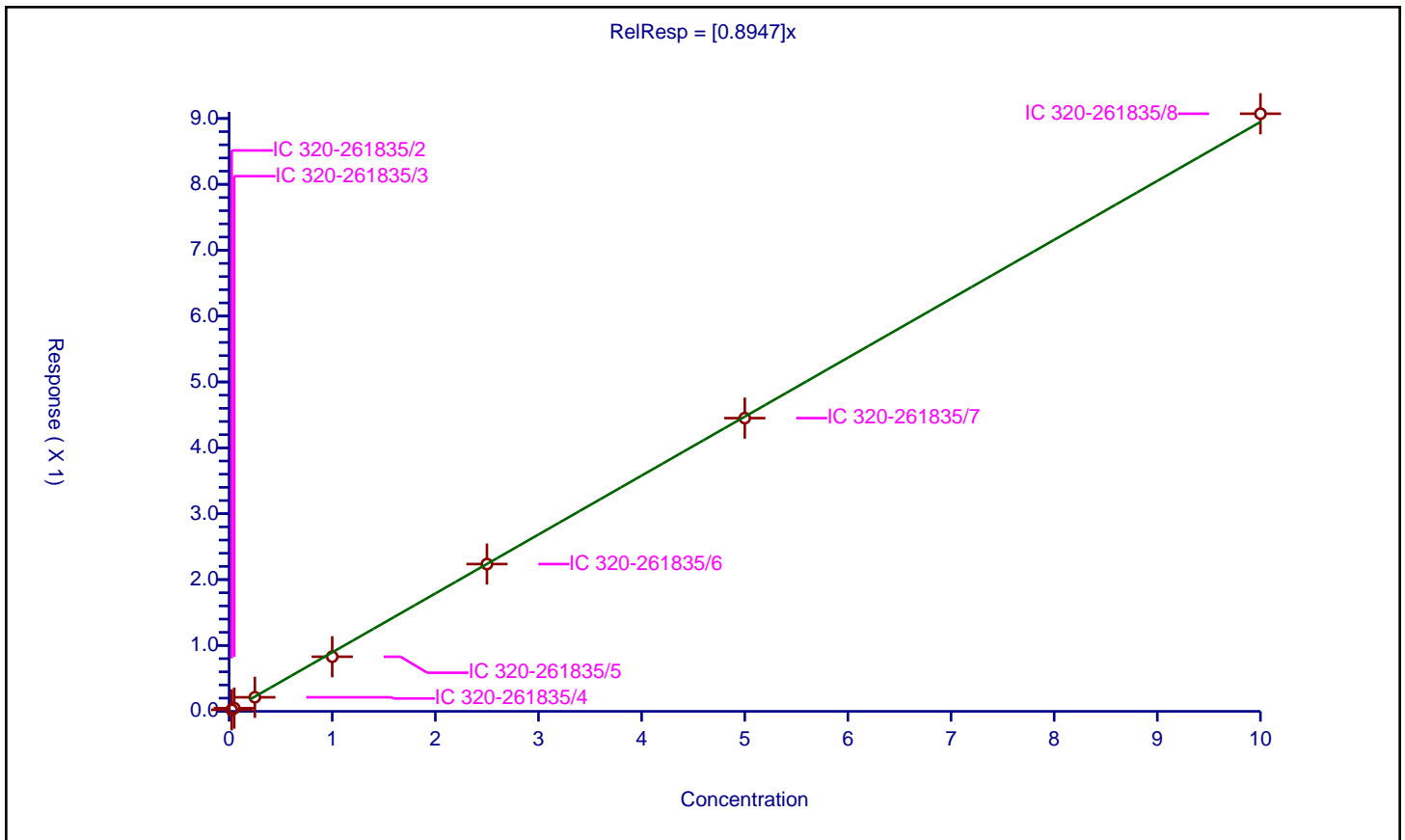
/ Perfluoroundecanoic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8947

Error Coefficients	
Standard Error:	4370000
Relative Standard Error:	5.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025	0.023102	2.5	2856107.0	0.92409	Y
2	IC 320-261835/3	0.05	0.048276	2.5	2813319.0	0.965514	Y
3	IC 320-261835/4	0.25	0.213137	2.5	2818121.0	0.852547	Y
4	IC 320-261835/5	1.0	0.829135	2.5	2816787.0	0.829135	Y
5	IC 320-261835/6	2.5	2.235785	2.5	2737752.0	0.894314	Y
6	IC 320-261835/7	5.0	4.451043	2.5	2756810.0	0.890209	Y
7	IC 320-261835/8	10.0	9.072253	2.5	2518085.0	0.907225	Y



Calibration

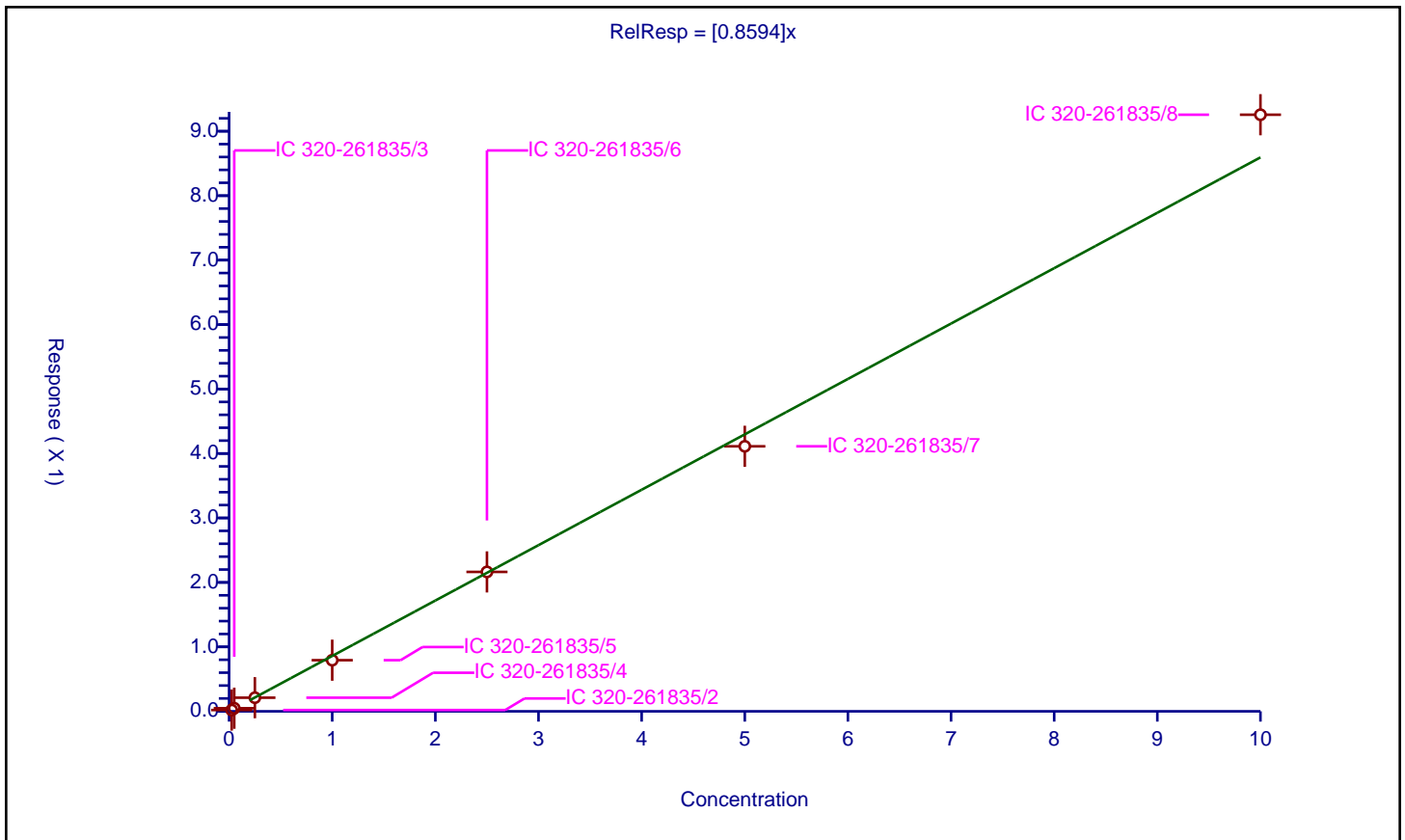
/ N-ethylperfluorooctanesulfonamidoacetic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8594

Error Coefficients	
Standard Error:	2750000
Relative Standard Error:	7.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025	0.020079	2.5	1846668.0	0.803176	Y
2	IC 320-261835/3	0.05	0.047983	2.5	1775996.0	0.959659	Y
3	IC 320-261835/4	0.25	0.211626	2.5	1741443.0	0.846505	Y
4	IC 320-261835/5	1.0	0.793346	2.5	1866342.0	0.793346	Y
5	IC 320-261835/6	2.5	2.163141	2.5	1785526.0	0.865257	Y
6	IC 320-261835/7	5.0	4.111902	2.5	1805208.0	0.82238	Y
7	IC 320-261835/8	10.0	9.255994	2.5	1568223.0	0.925599	Y



Calibration

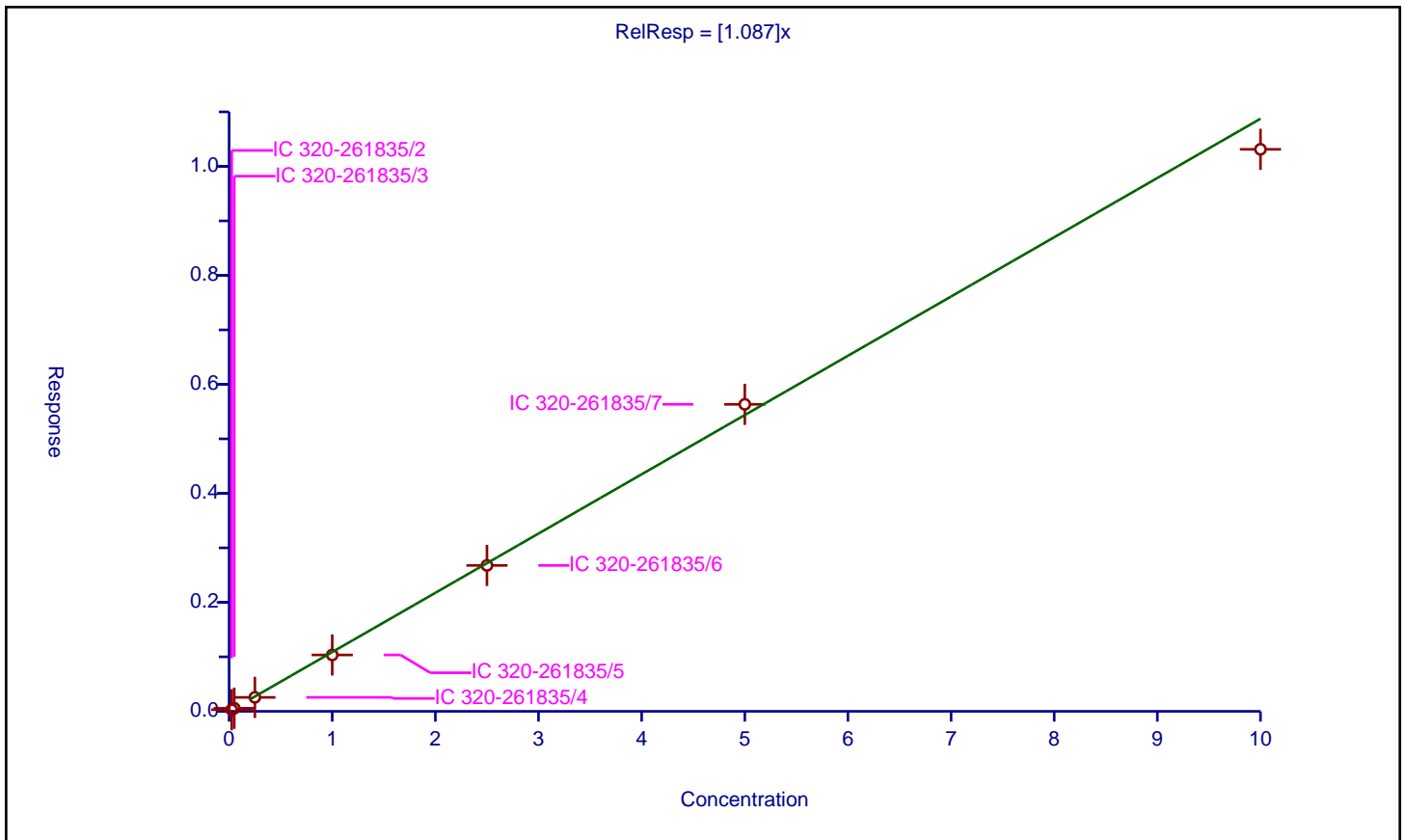
/ Perfluorododecanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.087

Error Coefficients	
Standard Error:	5670000
Relative Standard Error:	5.9
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025	0.029816	2.5	2839024.0	1.192628	Y
2	IC 320-261835/3	0.05	0.056545	2.5	3030334.0	1.130898	Y
3	IC 320-261835/4	0.25	0.256164	2.5	2991622.0	1.024655	Y
4	IC 320-261835/5	1.0	1.034799	2.5	3038168.0	1.034799	Y
5	IC 320-261835/6	2.5	2.677573	2.5	2884956.0	1.071029	Y
6	IC 320-261835/7	5.0	5.633587	2.5	2894227.0	1.126717	Y
7	IC 320-261835/8	10.0	10.313207	2.5	2857578.0	1.031321	Y



Calibration

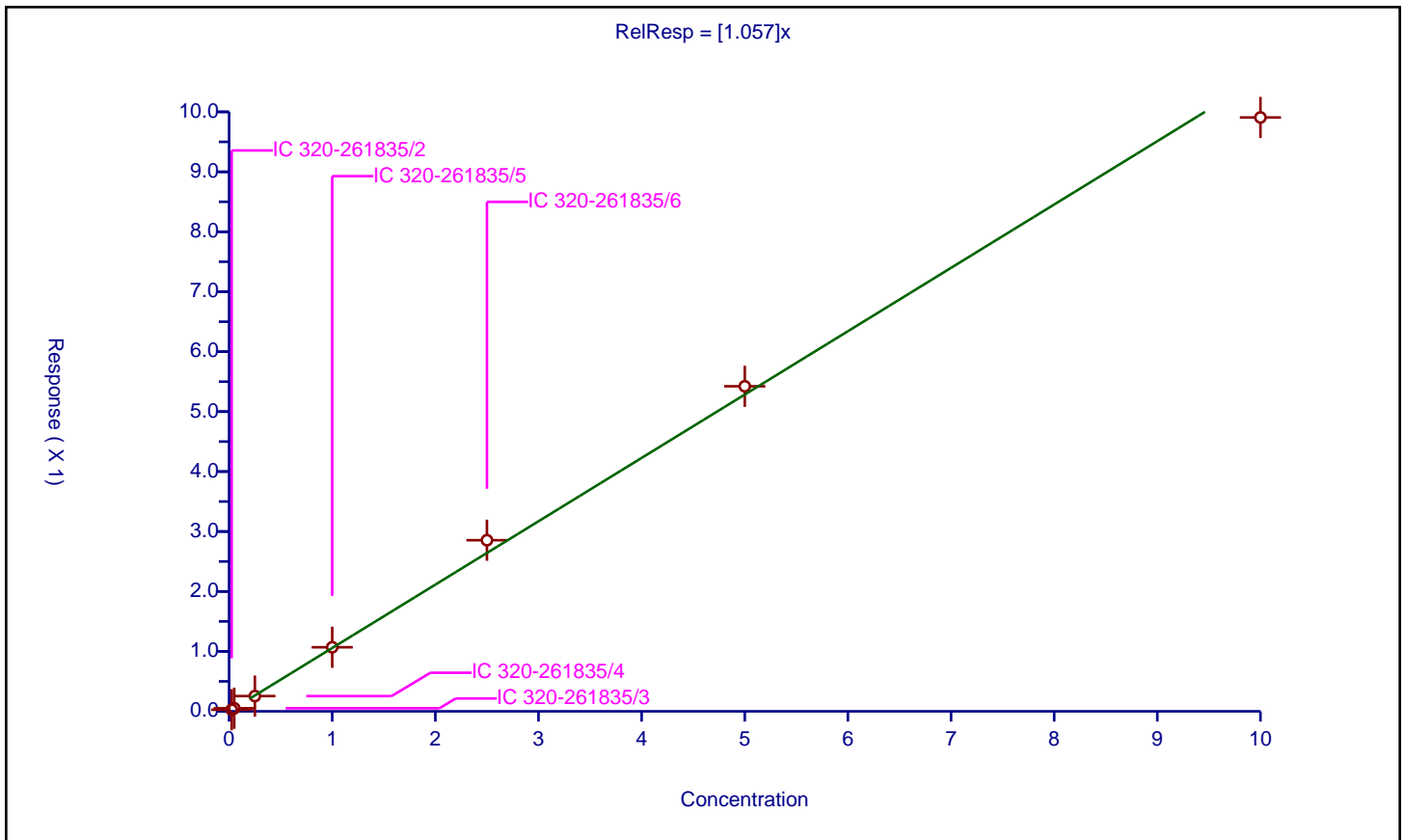
/ Perfluorotridecanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.057

Error Coefficients	
Standard Error:	5480000
Relative Standard Error:	4.8
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-261835/2	0.025	0.026742	2.5	2839024.0	1.069663	Y
2	IC 320-261835/3	0.05	0.051154	2.5	3030334.0	1.023089	Y
3	IC 320-261835/4	0.25	0.254807	2.5	2991622.0	1.01923	Y
4	IC 320-261835/5	1.0	1.069041	2.5	3038168.0	1.069041	Y
5	IC 320-261835/6	2.5	2.854491	2.5	2884956.0	1.141796	Y
6	IC 320-261835/7	5.0	5.422495	2.5	2894227.0	1.084499	Y
7	IC 320-261835/8	10.0	9.906883	2.5	2857578.0	0.990688	Y



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: ICV 320-261835/10 Calibration Date: 11/29/2018 07:46
 Instrument ID: A8_N Calib Start Date: 11/29/2018 06:46
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 11/29/2018 07:31
 Lab File ID: 2018.11.29PFCICAL_013.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9101	0.9420		2.59	2.50	3.5	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.090	1.139		2.61	2.50	4.5	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9705	1.029		2.34	2.21	6.0	30.0
4:2 FTS	AveID	0.1927	0.1947		2.36	2.34	1.1	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.003	1.018		2.54	2.50	1.5	30.0
Perfluoropentanesulfonic acid	AveID	0.8590	0.9440		2.58	2.35	9.9	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.063	1.055		2.48	2.50	-0.8	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.086	1.043		2.19	2.28	-4.0	30.0
6:2 FTS	AveID	1.556	1.592		2.43	2.38	2.3	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.310	1.316		2.39	2.38	0.5	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.134	1.114		2.46	2.50	-1.8	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.115	1.107		2.30	2.31	-0.7	30.0
Perfluorononanoic acid (PFNA)	AveID	1.032	1.036		2.51	2.50	0.4	30.0
Perfluorononanesulfonic acid	AveID	0.7778	0.7987		2.46	2.40	2.7	30.0
8:2 FTS	AveID	1.310	1.238		2.27	2.40	-5.5	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9866	0.996		2.53	2.50	1.0	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.001	1.024		2.56	2.50	2.4	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9409	1.061		2.82	2.50	12.7	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6478	0.6383		2.38	2.41	-1.5	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8947	0.8512		2.38	2.50	-4.9	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8594	1.000		2.91	2.50	16.3	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.087	1.031		2.37	2.50	-5.2	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.057	1.069		2.53	2.50	1.2	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2587	0.2530		2.44	2.50	-2.2	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9414		2.69	2.50	7.8	30.0
13C4 PFBA	Ave	1.526	1.524		2.50	2.50	-0.1	30.0
13C5 PFPeA	Ave	0.9597	0.9411		2.45	2.50	-1.9	30.0
13C3 PFBS	Ave	1.463	1.429		2.27	2.33	-2.3	30.0
13C2 PFHxA	Ave	1.015	0.998		2.46	2.50	-1.7	30.0
13C4 PFHpA	Ave	0.997	1.014		2.54	2.50	1.8	30.0
18O2 PFHxS	Ave	1.137	1.125		2.34	2.37	-1.1	30.0
M2-6:2 FTS	Ave	0.1752	0.1774		2.40	2.38	1.3	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: ICV 320-261835/10 Calibration Date: 11/29/2018 07:46
 Instrument ID: A8_N Calib Start Date: 11/29/2018 06:46
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 11/29/2018 07:31
 Lab File ID: 2018.11.29PFCICAL_013.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9734	0.9546		2.45	2.50	-1.9	30.0
13C4 PFOS	Ave	0.7427	0.7513		2.42	2.39	1.2	30.0
13C5 PFNA	Ave	0.8157	0.7975		2.44	2.50	-2.2	30.0
13C2 PFDA	Ave	0.7121	0.7088		2.49	2.50	-0.5	30.0
M2-8:2 FTS	Ave	0.1889	0.1904		2.41	2.40	0.8	30.0
13C8 FOSA	Ave	1.097	1.115		2.54	2.50	1.6	30.0
d3-NMeFOSAA	Ave	0.3479	0.3444		2.48	2.50	-1.0	30.0
13C2 PFUnA	Ave	0.5733	0.5855		2.55	2.50	2.1	30.0
d5-NEtFOSAA	Ave	0.3676	0.3621		2.46	2.50	-1.5	30.0
13C2 PFDoA	Ave	0.6099	0.6132		2.51	2.50	0.5	30.0
13C2 PFTeDA	Ave	0.7261	0.7204		2.48	2.50	-0.8	30.0
13C2 PFHxDA	Ave	1.341	1.369		2.55	2.50	2.1	30.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Instrument ID: A8_N Start Date: 12/05/2018 15:45

Analysis Batch Number: 263261 End Date: 12/05/2018 16:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 320-263261/1		12/05/2018 15:45	1	2018.12.05LLA_004.d	GeminiC18 3x100 3(mm)
CCVL 320-263261/2		12/05/2018 15:53	1	2018.12.05LLA_005.d	GeminiC18 3x100 3(mm)
CCV 320-263261/3 CCVIS		12/05/2018 16:00	1	2018.12.05LLA_006.d	GeminiC18 3x100 3(mm)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCVL 320-263261/2 Calibration Date: 12/05/2018 15:53
 Instrument ID: A8_N Calib Start Date: 11/29/2018 06:46
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 11/29/2018 07:31
 Lab File ID: 2018.12.05LLA_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9101	0.8203		0.0451	0.0500	-9.9	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.090	1.075		0.0493	0.0500	-1.4	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9705	0.9086		0.0414	0.0442	-6.4	30.0
4:2 FTS	AveID	0.1927	0.2240		0.543	0.467	16.3	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.003	0.9436		0.0471	0.0500	-5.9	30.0
Perfluoropentanesulfonic acid	AveID	0.8590	0.8484		0.0463	0.0469	-1.2	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.063	1.108		0.0521	0.0500	4.2	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.086	1.128		0.0473	0.0455	3.9	30.0
6:2 FTS	AveID	1.556	1.639		0.499	0.474	5.3	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.310	1.281		0.0466	0.0476	-2.2	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.134	1.196		0.0528	0.0501	5.5	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.115	1.098		0.0457	0.0464	-1.5	30.0
Perfluorononanoic acid (PFNA)	AveID	1.032	0.9008		0.0437	0.0500	-12.7	30.0
Perfluorononanesulfonic acid	AveID	0.7778	0.7768		0.0479	0.0480	-0.1	30.0
8:2 FTS	AveID	1.310	1.328		0.486	0.479	1.4	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9866	0.9592		0.0486	0.0500	-2.8	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.001	0.9379		0.0469	0.0500	-6.3	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9409	0.9315		0.495	0.500	-1.0	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6478	0.6250		0.0465	0.0482	-3.5	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8947	0.9680		0.0541	0.0500	8.2	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8594	0.8800		0.512	0.500	2.4	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.087	0.9932		0.0457	0.0500	-8.7	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.057	1.030		0.0487	0.0500	-2.5	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2587	0.2389		0.0462	0.0500	-7.6	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.259		0.0479	0.0500	-4.2	30.0
13C4 PFBA	Ave	1.526	1.440		2.36	2.50	-5.6	30.0
13C5 PFPeA	Ave	0.9597	0.9392		2.45	2.50	-2.1	30.0
13C3 PFBS	Ave	1.463	1.425		2.27	2.33	-2.6	30.0
13C2 PFHxA	Ave	1.015	1.020		2.51	2.50	0.5	30.0
13C4 PFHpA	Ave	0.997	0.9540		2.39	2.50	-4.3	30.0
18O2 PFHxS	Ave	1.137	1.159		2.41	2.37	1.9	30.0
M2-6:2 FTS	Ave	0.1752	0.1918		2.60	2.38	9.5	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCVL 320-263261/2 Calibration Date: 12/05/2018 15:53
 Instrument ID: A8_N Calib Start Date: 11/29/2018 06:46
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 11/29/2018 07:31
 Lab File ID: 2018.12.05LLA_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9734	0.9510		2.44	2.50	-2.3	30.0
13C4 PFOS	Ave	0.7427	0.7393		2.38	2.39	-0.5	30.0
13C5 PFNA	Ave	0.8157	0.8430		2.58	2.50	3.4	30.0
13C2 PFDA	Ave	0.7121	0.7057		2.48	2.50	-0.9	30.0
M2-8:2 FTS	Ave	0.1889	0.2018		2.56	2.40	6.8	30.0
13C8 FOSA	Ave	1.097	1.111		2.53	2.50	1.3	30.0
d3-NMeFOSAA	Ave	0.3479	0.3800		2.73	2.50	9.2	30.0
13C2 PFUnA	Ave	0.5733	0.5800		2.53	2.50	1.2	30.0
d5-NEtFOSAA	Ave	0.3676	0.4102		2.79	2.50	11.6	30.0
13C2 PFDoA	Ave	0.6099	0.6139		2.52	2.50	0.7	30.0
13C2 PFTeDA	Ave	0.7261	0.7482		2.58	2.50	3.0	30.0
13C2 PFHxDA	Ave	1.341	1.295		2.41	2.50	-3.4	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-263261/3 Calibration Date: 12/05/2018 16:00
 Instrument ID: A8_N Calib Start Date: 11/29/2018 06:46
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 11/29/2018 07:31
 Lab File ID: 2018.12.05LLA_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9101	0.9274		1.02	1.00	1.9	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.090	1.099		1.01	1.00	0.8	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9705	0.999		0.910	0.884	2.9	30.0
4:2 FTS	AveID	0.1927	0.2130		1.03	0.934	10.6	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.003	1.018		1.01	1.00	1.5	30.0
Perfluoropentanesulfonic acid	AveID	0.8590	0.9070		0.990	0.938	5.6	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.063	1.063		0.999	1.00	-0.0	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.086	1.021		0.856	0.910	-5.9	30.0
6:2 FTS	AveID	1.556	1.624		0.989	0.948	4.3	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.310	1.308		0.951	0.952	-0.1	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.134	1.084		0.956	1.00	-4.5	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.115	1.088		0.905	0.928	-2.5	30.0
Perfluorononanoic acid (PFNA)	AveID	1.032	1.048		1.02	1.00	1.6	30.0
Perfluorononanesulfonic acid	AveID	0.7778	0.8129		1.00	0.960	4.5	30.0
8:2 FTS	AveID	1.310	1.249		0.913	0.958	-4.7	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9866	0.996		1.01	1.00	1.0	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.001	0.9906		0.990	1.00	-1.0	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9409	0.8905		0.946	1.00	-5.4	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6478	0.6526		0.971	0.964	0.7	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8947	0.8669		0.969	1.00	-3.1	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8594	0.8277		0.963	1.00	-3.7	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.087	1.082		0.995	1.00	-0.5	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.057	1.089		1.03	1.00	3.1	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2587	0.2432		0.940	1.00	-6.0	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8949		1.01	1.00	0.9	30.0
13C4 PFBA	Ave	1.526	1.507		2.47	2.50	-1.2	30.0
13C5 PFPeA	Ave	0.9597	0.9363		2.44	2.50	-2.4	30.0
13C3 PFBS	Ave	1.463	1.496		2.38	2.33	2.3	30.0
13C2 PFHxA	Ave	1.015	1.025		2.52	2.50	1.0	30.0
13C4 PFHpA	Ave	0.997	0.9935		2.49	2.50	-0.3	30.0
18O2 PFHxS	Ave	1.137	1.185		2.47	2.37	4.2	30.0
M2-6:2 FTS	Ave	0.1752	0.2006		2.72	2.38	14.5	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-263261/3 Calibration Date: 12/05/2018 16:00
 Instrument ID: A8_N Calib Start Date: 11/29/2018 06:46
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 11/29/2018 07:31
 Lab File ID: 2018.12.05LLA_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9734	1.010		2.59	2.50	3.8	30.0
13C4 PFOS	Ave	0.7427	0.7736		2.49	2.39	4.2	30.0
13C5 PFNA	Ave	0.8157	0.7891		2.42	2.50	-3.3	30.0
13C2 PFDA	Ave	0.7121	0.7463		2.62	2.50	4.8	30.0
13C8 FOSA	Ave	1.097	1.152		2.62	2.50	4.9	30.0
M2-8:2 FTS	Ave	0.1889	0.2305		2.92	2.40	22.0	30.0
d3-NMeFOSAA	Ave	0.3479	0.4062		2.92	2.50	16.8	30.0
13C2 PFUnA	Ave	0.5733	0.6005		2.62	2.50	4.8	30.0
d5-NEtFOSAA	Ave	0.3676	0.4245		2.89	2.50	15.5	30.0
13C2 PFDoA	Ave	0.6099	0.6250		2.56	2.50	2.5	30.0
13C2 PFTeDA	Ave	0.7261	0.7831		2.70	2.50	7.9	30.0
13C2 PFHxDA	Ave	1.341	1.387		2.58	2.50	3.4	30.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Instrument ID: A8_N Start Date: 12/05/2018 16:53

Analysis Batch Number: 263304 End Date: 12/05/2018 18:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-263304/1		12/05/2018 16:53	1	2018.12.05LLA_0 13.d	GeminiC18 3x100 3(mm)
MB 320-258787/1-A		12/05/2018 17:00	1	2018.12.05LLA_0 14.d	GeminiC18 3x100 3(mm)
LCS 320-258787/2-A		12/05/2018 17:08	1	2018.12.05LLA_0 15.d	GeminiC18 3x100 3(mm)
LCSD 320-258787/3-A		12/05/2018 17:15	1	2018.12.05LLA_0 16.d	GeminiC18 3x100 3(mm)
320-44773-1		12/05/2018 17:23	1	2018.12.05LLA_0 17.d	GeminiC18 3x100 3(mm)
320-44773-2		12/05/2018 17:30	1	2018.12.05LLA_0 18.d	GeminiC18 3x100 3(mm)
320-44773-3		12/05/2018 17:38	1	2018.12.05LLA_0 19.d	GeminiC18 3x100 3(mm)
320-44773-4		12/05/2018 17:45	1	2018.12.05LLA_0 20.d	GeminiC18 3x100 3(mm)
320-44773-5		12/05/2018 17:53	1	2018.12.05LLA_0 21.d	GeminiC18 3x100 3(mm)
320-44773-6		12/05/2018 18:00	1	2018.12.05LLA_0 22.d	GeminiC18 3x100 3(mm)
320-44773-7		12/05/2018 18:08	1	2018.12.05LLA_0 23.d	GeminiC18 3x100 3(mm)
CCV 320-263304/12		12/05/2018 18:15	1	2018.12.05LLA_0 24.d	GeminiC18 3x100 3(mm)
320-44773-8		12/05/2018 18:23	1	2018.12.05LLA_0 25.d	GeminiC18 3x100 3(mm)
320-44773-9		12/05/2018 18:30	1	2018.12.05LLA_0 26.d	GeminiC18 3x100 3(mm)
320-44773-10		12/05/2018 18:38	1	2018.12.05LLA_0 27.d	GeminiC18 3x100 3(mm)
ZZZZZ		12/05/2018 18:45	1		GeminiC18 3x100 3(mm)
CCV 320-263304/17		12/05/2018 18:53	1	2018.12.05LLA_0 29.d	GeminiC18 3x100 3(mm)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-263304/1 Calibration Date: 12/05/2018 16:53
 Instrument ID: A8_N Calib Start Date: 11/29/2018 06:46
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 11/29/2018 07:31
 Lab File ID: 2018.12.05LLA_013.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9101	0.9593		2.64	2.50	5.4	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.090	1.137		2.61	2.50	4.3	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9705	1.018		2.32	2.21	4.9	30.0
4:2 FTS	AveID	0.1927	0.2097		2.54	2.34	8.8	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.003	0.9911		2.47	2.50	-1.2	30.0
Perfluoropentanesulfonic acid	AveID	0.8590	0.9161		2.50	2.35	6.6	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.063	1.070		2.51	2.50	0.6	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.086	1.050		2.20	2.28	-3.3	30.0
6:2 FTS	AveID	1.556	1.562		2.38	2.37	0.4	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.310	1.322		2.40	2.38	0.9	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.134	1.047		2.31	2.50	-7.7	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.115	1.069		2.22	2.32	-4.1	30.0
Perfluorononanoic acid (PFNA)	AveID	1.032	1.054		2.55	2.50	2.2	30.0
Perfluorononanesulfonic acid	AveID	0.7778	0.8035		2.48	2.40	3.3	30.0
8:2 FTS	AveID	1.310	1.325		2.42	2.40	1.2	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9866	0.997		2.53	2.50	1.1	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.001	0.9881		2.47	2.50	-1.3	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9409	0.8959		2.38	2.50	-4.8	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6478	0.6235		2.32	2.41	-3.8	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8947	0.8204		2.29	2.50	-8.3	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8594	0.8592		2.50	2.50	-0.0	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.087	1.113		2.56	2.50	2.4	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.057	1.008		2.38	2.50	-4.6	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2587	0.2484		2.40	2.50	-4.0	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9221		2.64	2.50	5.5	30.0
13C4 PFBA	Ave	1.526	1.455		2.38	2.50	-4.7	30.0
13C5 PFPeA	Ave	0.9597	0.9229		2.40	2.50	-3.8	30.0
13C3 PFBS	Ave	1.463	1.413		2.25	2.33	-3.4	30.0
13C2 PFHxA	Ave	1.015	1.001		2.47	2.50	-1.4	30.0
13C4 PFHpA	Ave	0.997	0.9509		2.39	2.50	-4.6	30.0
18O2 PFHxS	Ave	1.137	1.136		2.36	2.37	-0.0	30.0
M2-6:2 FTS	Ave	0.1752	0.2046		2.77	2.38	16.7	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-263304/1 Calibration Date: 12/05/2018 16:53
 Instrument ID: A8_N Calib Start Date: 11/29/2018 06:46
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 11/29/2018 07:31
 Lab File ID: 2018.12.05LLA_013.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9734	0.9785		2.51	2.50	0.5	30.0
13C4 PFOS	Ave	0.7427	0.7495		2.41	2.39	0.9	30.0
13C5 PFNA	Ave	0.8157	0.8037		2.46	2.50	-1.5	30.0
13C2 PFDA	Ave	0.7121	0.7193		2.53	2.50	1.0	30.0
13C8 FOSA	Ave	1.097	1.067		2.43	2.50	-2.8	30.0
M2-8:2 FTS	Ave	0.1889	0.2056		2.61	2.40	8.8	30.0
d3-NMeFOSAA	Ave	0.3479	0.3706		2.66	2.50	6.5	30.0
13C2 PFUnA	Ave	0.5733	0.6136		2.68	2.50	7.0	30.0
d5-NEtFOSAA	Ave	0.3676	0.3914		2.66	2.50	6.5	30.0
13C2 PFDoA	Ave	0.6099	0.6306		2.58	2.50	3.4	30.0
13C2 PFTeDA	Ave	0.7261	0.7379		2.54	2.50	1.6	30.0
13C2 PFHxDA	Ave	1.341	1.292		2.41	2.50	-3.7	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-263304/12 Calibration Date: 12/05/2018 18:15
 Instrument ID: A8_N Calib Start Date: 11/29/2018 06:46
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 11/29/2018 07:31
 Lab File ID: 2018.12.05LLA_024.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9101	0.9225		1.01	1.00	1.4	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.090	1.111		1.02	1.00	2.0	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9705	0.9923		0.904	0.884	2.2	30.0
4:2 FTS	AveID	0.1927	0.2111		1.02	0.934	9.6	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.003	0.9585		0.956	1.00	-4.4	30.0
Perfluoropentanesulfonic acid	AveID	0.8590	0.8574		0.936	0.938	-0.2	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.063	1.087		1.02	1.00	2.2	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.086	1.017		0.853	0.910	-6.3	30.0
6:2 FTS	AveID	1.556	1.489		0.907	0.948	-4.3	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.310	1.286		0.935	0.952	-1.8	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.134	1.095		0.966	1.00	-3.5	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.115	1.120		0.933	0.928	0.5	30.0
Perfluorononanoic acid (PFNA)	AveID	1.032	1.069		1.04	1.00	3.6	30.0
Perfluorononanesulfonic acid	AveID	0.7778	0.7599		0.938	0.960	-2.3	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.001	0.9882		0.987	1.00	-1.3	30.0
8:2 FTS	AveID	1.310	1.347		0.985	0.958	2.8	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9866	0.9055		0.918	1.00	-8.2	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9409	0.9607		1.02	1.00	2.1	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6478	0.6237		0.928	0.964	-3.7	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8947	0.8818		0.986	1.00	-1.4	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8594	0.8262		0.961	1.00	-3.9	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.087	1.060		0.974	1.00	-2.6	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.057	1.050		0.993	1.00	-0.7	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2587	0.2477		0.958	1.00	-4.2	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9082		1.02	1.00	2.4	30.0
13C4 PFBA	Ave	1.526	1.471		2.41	2.50	-3.6	30.0
13C5 PFPeA	Ave	0.9597	0.9176		2.39	2.50	-4.4	30.0
13C3 PFBS	Ave	1.463	1.451		2.31	2.33	-0.8	30.0
13C2 PFHxA	Ave	1.015	1.049		2.58	2.50	3.3	30.0
13C4 PFHpA	Ave	0.997	0.9425		2.36	2.50	-5.4	30.0
18O2 PFHxS	Ave	1.137	1.127		2.34	2.37	-0.9	30.0
M2-6:2 FTS	Ave	0.1752	0.2080		2.82	2.38	18.7	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-263304/12 Calibration Date: 12/05/2018 18:15
 Instrument ID: A8_N Calib Start Date: 11/29/2018 06:46
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 11/29/2018 07:31
 Lab File ID: 2018.12.05LLA_024.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9734	0.9522		2.45	2.50	-2.2	30.0
13C4 PFOS	Ave	0.7427	0.7642		2.46	2.39	2.9	30.0
13C5 PFNA	Ave	0.8157	0.8088		2.48	2.50	-0.8	30.0
13C8 FOSA	Ave	1.097	1.063		2.42	2.50	-3.1	30.0
13C2 PFDA	Ave	0.7121	0.7499		2.63	2.50	5.3	30.0
M2-8:2 FTS	Ave	0.1889	0.2126		2.69	2.40	12.5	30.0
d3-NMeFOSAA	Ave	0.3479	0.3715		2.67	2.50	6.8	30.0
13C2 PFUnA	Ave	0.5733	0.6057		2.64	2.50	5.7	30.0
d5-NEtFOSAA	Ave	0.3676	0.4098		2.79	2.50	11.5	30.0
13C2 PFDoA	Ave	0.6099	0.6331		2.59	2.50	3.8	30.0
13C2 PFTeDA	Ave	0.7261	0.7464		2.57	2.50	2.8	30.0
13C2 PFHxDA	Ave	1.341	1.347		2.51	2.50	0.4	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-263304/17 Calibration Date: 12/05/2018 18:53
 Instrument ID: A8_N Calib Start Date: 11/29/2018 06:46
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 11/29/2018 07:31
 Lab File ID: 2018.12.05LLA_029.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9101	0.9404		2.58	2.50	3.3	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.090	1.103		2.53	2.50	1.2	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9705	1.024		2.33	2.21	5.5	30.0
4:2 FTS	AveID	0.1927	0.2302		2.79	2.34	19.5	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.003	0.9707		2.42	2.50	-3.2	30.0
Perfluoropentanesulfonic acid	AveID	0.8590	0.9173		2.50	2.35	6.8	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.063	1.121		2.64	2.50	5.4	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.086	1.064		2.23	2.28	-2.0	30.0
6:2 FTS	AveID	1.556	1.648		2.51	2.37	5.9	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.310	1.335		2.43	2.38	1.9	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.134	1.054		2.33	2.50	-7.0	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.115	1.160		2.41	2.32	4.1	30.0
Perfluorononanoic acid (PFNA)	AveID	1.032	1.062		2.57	2.50	3.0	30.0
Perfluorononanesulfonic acid	AveID	0.7778	0.8029		2.48	2.40	3.2	30.0
8:2 FTS	AveID	1.310	1.305		2.39	2.40	-0.4	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9866	0.9583		2.43	2.50	-2.9	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	1.001	1.031		2.58	2.50	3.0	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9409	0.9172		2.44	2.50	-2.5	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6478	0.6690		2.49	2.41	3.3	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8594	0.8392		2.44	2.50	-2.4	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8947	0.8568		2.39	2.50	-4.2	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.087	1.047		2.41	2.50	-3.7	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.057	1.000		2.36	2.50	-5.4	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2587	0.2496		2.41	2.50	-3.5	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8948		2.56	2.50	2.4	30.0
13C4 PFBA	Ave	1.526	1.507		2.47	2.50	-1.2	30.0
13C5 PFPeA	Ave	0.9597	0.9224		2.40	2.50	-3.9	30.0
13C3 PFBS	Ave	1.463	1.430		2.27	2.33	-2.2	30.0
13C2 PFHxA	Ave	1.015	1.028		2.53	2.50	1.3	30.0
13C4 PFHpA	Ave	0.997	0.9703		2.43	2.50	-2.6	30.0
18O2 PFHxS	Ave	1.137	1.132		2.35	2.37	-0.5	30.0
M2-6:2 FTS	Ave	0.1752	0.1890		2.56	2.38	7.9	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-263304/17 Calibration Date: 12/05/2018 18:53
 Instrument ID: A8_N Calib Start Date: 11/29/2018 06:46
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 11/29/2018 07:31
 Lab File ID: 2018.12.05LLA_029.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9734	1.000		2.57	2.50	2.7	30.0
13C4 PFOS	Ave	0.7427	0.7472		2.40	2.39	0.6	30.0
13C5 PFNA	Ave	0.8157	0.8428		2.58	2.50	3.3	30.0
13C2 PFDA	Ave	0.7121	0.7616		2.67	2.50	7.0	30.0
13C8 FOSA	Ave	1.097	1.055		2.40	2.50	-3.9	30.0
M2-8:2 FTS	Ave	0.1889	0.2227		2.82	2.40	17.9	30.0
d3-NMeFOSAA	Ave	0.3479	0.3946		2.84	2.50	13.4	30.0
13C2 PFUnA	Ave	0.5733	0.6251		2.73	2.50	9.0	30.0
d5-NEtFOSAA	Ave	0.3676	0.4079		2.77	2.50	11.0	30.0
13C2 PFDoA	Ave	0.6099	0.6418		2.63	2.50	5.2	30.0
13C2 PFTeDA	Ave	0.7261	0.7529		2.59	2.50	3.7	30.0
13C2 PFHxDA	Ave	1.341	1.308		2.44	2.50	-2.5	30.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Instrument ID: A8_N Start Date: 12/08/2018 05:16

Analysis Batch Number: 263888 End Date: 12/08/2018 06:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 320-263888/2		12/08/2018 05:16	1	2018.12.07ICAL_005.d	GeminiC18 3x100 3(mm)
IC 320-263888/3		12/08/2018 05:24	1	2018.12.07ICAL_006.d	GeminiC18 3x100 3(mm)
IC 320-263888/4		12/08/2018 05:31	1	2018.12.07ICAL_007.d	GeminiC18 3x100 3(mm)
IC 320-263888/5 ICIS		12/08/2018 05:39	1	2018.12.07ICAL_008.d	GeminiC18 3x100 3(mm)
IC 320-263888/6		12/08/2018 05:46	1	2018.12.07ICAL_009.d	GeminiC18 3x100 3(mm)
IC 320-263888/7		12/08/2018 05:54	1	2018.12.07ICAL_010.d	GeminiC18 3x100 3(mm)
IC 320-263888/8		12/08/2018 06:01	1	2018.12.07ICAL_011.d	GeminiC18 3x100 3(mm)
ICB 320-263888/9		12/08/2018 06:09	1	2018.12.07ICAL_012.d	GeminiC18 3x100 3(mm)
ICV 320-263888/10		12/08/2018 06:16	1	2018.12.07ICAL_013.d	GeminiC18 3x100 3(mm)

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 263888

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2018 05:16 Calibration End Date: 12/08/2018 06:01 Calibration ID: 42666

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-263888/2	2018.12.07ICAL_005.d
Level 2	IC 320-263888/3	2018.12.07ICAL_006.d
Level 3	IC 320-263888/4	2018.12.07ICAL_007.d
Level 4	IC 320-263888/5	2018.12.07ICAL_008.d
Level 5	IC 320-263888/6	2018.12.07ICAL_009.d
Level 6	IC 320-263888/7	2018.12.07ICAL_010.d
Level 7	IC 320-263888/8	2018.12.07ICAL_011.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Perfluorobutanoic acid (PFBA)	0.8738 0.9428	0.8977 0.8815	0.9256	0.9333	0.9382	AveID		0.9132			3.1		20.0				
Perfluoropentanoic acid (PFPeA)	1.1564 1.0622	1.1741 1.0853	1.0226	1.0800	1.0870	AveID		1.0954			4.8		20.0				
Perfluorobutanesulfonic acid (PFBS)	1.0406 0.9780	0.9901 0.8804	0.9700	1.0004	1.0523	AveID		0.9874			5.7		20.0				
4:2 FTS	0.1760 0.1999	0.1931 0.1819	0.1970	0.1822	0.1947	AveID		0.1892			4.8		20.0				
Perfluorohexanoic acid (PFHxA)	1.0819 1.0096	1.0277 0.9896	0.9786	0.9590	1.0385	AveID		1.0121			4.1		20.0				
Perfluoropentanesulfonic acid	0.8686 0.8582	0.8543 0.7615	0.8837	0.8939	0.9299	AveID		0.8643			6.0		20.0				
Perfluoroheptanoic acid (PFHpA)	1.1228 1.0842	1.4212 1.0406	1.0823	1.1103	1.0381	AveID		1.1285			11.8		20.0				
Perfluorohexanesulfonic acid (PFHxS)	1.2214 1.0554	1.1343 0.9858	0.9947	1.0048	1.0388	AveID		1.0622			8.1		20.0				
6:2 FTS	1.5612 1.5997	1.4390 1.5545	1.6269	1.4851	1.6224	AveID		1.5556			4.6		20.0				
Perfluoroheptanesulfonic Acid (PFHpS)	1.2438 1.3014	1.2652 1.2483	1.2684	1.3448	1.3291	AveID		1.2859			3.1		20.0				
Perfluorooctanoic acid (PFOA)	1.3197 1.0523	1.1530 1.0242	1.1327	1.0877	1.0935	AveID		1.1233			8.6		20.0				
Perfluorooctanesulfonic acid (PFOS)	1.1071 1.1350	1.0794 1.1428	1.1384	1.1281	1.1129	AveID		1.1205			2.0		20.0				
Perfluorononanoic acid (PFNA)	1.2144 1.0604	1.0109 0.9992	1.0071	1.0493	1.0271	AveID		1.0526			7.1		20.0				
Perfluorononanesulfonic acid	0.6719 0.7836	0.7680 0.8276	0.8109	0.8116	0.8003	AveID		0.7820			6.7		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento

Job No.: 320-44773-1

Analy Batch No.: 263888

SDG No.: _____

Instrument ID: A8_N

GC Column: GeminiC18 3 ID: 3(mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2018 05:16

Calibration End Date: 12/08/2018 06:01

Calibration ID: 42666

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Perfluorodecanoic acid (PFDA)	0.8639 0.9579	1.0326 1.0026	1.0074	0.9378	0.9778	AveID		0.9686			5.8		20.0				
8:2 FTS	1.3830 1.3128	1.3008 1.2724	1.3361	1.2158	1.3326	AveID		1.3076			4.1		20.0				
Perfluorooctanesulfonamide (FOSA)	0.9004 0.9228	0.8946 0.9223	0.9511	0.9661	1.0052	AveID		0.9375			4.2		20.0				
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.8781 0.9144	0.9529 0.9907	0.9540	0.8772	0.9056	AveID		0.9247			4.6		20.0				
Perfluorodecanesulfonic acid (PFDS)	0.5741 0.6823	0.5841 0.6736	0.6262	0.6658	0.6689	AveID		0.6393			7.0		20.0				
Perfluoroundecanoic acid (PFUnA)	1.0364 0.9384	0.9140 0.8641	0.8873	0.8681	0.8880	AveID		0.9137			6.6		20.0				
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.8570 0.8534	0.9110 0.8681	0.8139	0.8334	0.8436	AveID		0.8543			3.6		20.0				
Perfluorododecanoic acid (PFDoA)	1.1801 1.0153	1.1268 1.0270	1.0535	0.9928	1.0602	AveID		1.0651			6.2		20.0				
Perfluorotridecanoic acid (PFTriA)	0.9078 1.0666	0.9763 1.0277	1.0235	1.0455	1.0372	AveID		1.0121			5.3		20.0				
Perfluorotetradecanoic acid (PFTeA)	0.2757 0.2573	0.2402 0.2521	0.2483	0.2492	0.2484	AveID		0.2530			4.4		20.0				
13C4 PFBA	1.4703 1.5185	1.4909 1.5549	1.4813	1.5445	1.4723	Ave		1.5047			2.3		20.0				
13C5 PFPeA	0.9979 1.0153	0.9563 0.9974	1.0052	0.9968	0.9412	Ave		0.9872			2.8		20.0				
13C3 PFBS	1.5192 1.5466	1.4753 1.6087	1.5172	1.5953	1.4392	Ave		1.5288			4.0		20.0				
13C2 PFHxA	0.9921 1.0259	1.0295 1.0137	1.0347	1.1059	1.0158	Ave		1.0311			3.5		20.0				
13C4 PFHpA	0.9529 0.9857	1.0218 0.9715	1.0048	1.0121	0.9786	Ave		0.9896			2.5		20.0				
18O2 PFHxS	1.2023 1.1723	1.1866 1.1726	1.2291	1.2419	1.1393	Ave		1.1920			3.0		20.0				
M2-6:2 FTS	0.1760 0.1733	0.1855 0.1805	0.1718	0.1885	0.1765	Ave		0.1789			3.5		20.0				
13C4 PFOA	0.9844 0.9779	0.9817 1.0052	0.9718	0.9889	0.9865	Ave		0.9852			1.1		20.0				
13C4 PFOS	0.8187 0.7829	0.7945 0.7742	0.7763	0.7861	0.7681	Ave		0.7858			2.1		20.0				
13C5 PFNA	0.7976 0.8136	0.8100 0.8568	0.8314	0.8296	0.7996	Ave		0.8198			2.6		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 263888
 SDG No.: _____
 Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N
 Calibration Start Date: 12/08/2018 05:16 Calibration End Date: 12/08/2018 06:01 Calibration ID: 42666

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
M2-8:2 FTS	0.1963 0.1998	0.1923 0.2043	0.1870	0.1983	0.1839	Ave		0.1946			3.7		20.0				
13C2 PFDA	0.7178 0.7686	0.7340 0.7325	0.7219	0.7725	0.7083	Ave		0.7365			3.4		20.0				
13C8 FOSA	1.1691 1.1922	1.1572 1.1613	1.1808	1.1958	1.1353	Ave		1.1702			1.8		20.0				
d3-NMeFOSAA	0.3880 0.4036	0.3763 0.3966	0.3634	0.4178	0.3828	Ave		0.3898			4.6		20.0				
13C2 PFUnA	0.5718 0.5740	0.5831 0.6032	0.5999	0.5905	0.5611	Ave		0.5834			2.7		20.0				
d5-NEtFOSAA	0.4024 0.4093	0.4002 0.4074	0.4195	0.4191	0.4076	Ave		0.4094			1.8		20.0				
13C2 PFDoA	0.5935 0.5886	0.5826 0.6293	0.6206	0.6070	0.5849	Ave		0.6009			3.1		20.0				
13C2 PFTeDA	0.6745 0.7110	0.6904 0.7088	0.7151	0.6967	0.6902	Ave		0.6981			2.1		20.0				
13C2 PFHxDA	1.1695 1.2382	1.2168 1.2477	1.2559	1.2695	1.1865	Ave		1.2263			3.0		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 263888

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2018 05:16 Calibration End Date: 12/08/2018 06:01 Calibration ID: 42666

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-263888/2	2018.12.07ICAL_005.d
Level 2	IC 320-263888/3	2018.12.07ICAL_006.d
Level 3	IC 320-263888/4	2018.12.07ICAL_007.d
Level 4	IC 320-263888/5	2018.12.07ICAL_008.d
Level 5	IC 320-263888/6	2018.12.07ICAL_009.d
Level 6	IC 320-263888/7	2018.12.07ICAL_010.d
Level 7	IC 320-263888/8	2018.12.07ICAL_011.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perfluorobutanoic acid (PFBA)		AveID	63016 14118065	134242 25337129	664779	2836773	6931695	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluoropentanoic acid (PFPeA)		AveID	56606 10634903	112622 20010869	498455	2118586	5134540	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorobutanesulfonic acid (PFBS)		AveID	68547 13186942	129521 23143967	630804	2776349	6718429	0.0221 4.42	0.0442 8.84	0.221	0.884	2.21
4:2 FTS		AveID	12248 2847272	26686 5052888	135338	534200	1313185	0.0234 4.67	0.0467 9.34	0.234	0.934	2.34
Perfluorohexanoic acid (PFHxA)		AveID	52650 10214491	106123 18543964	490978	2087126	5293796	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluoropentanesulfonic acid		AveID	60710 12277369	118586 21241019	609830	2632513	6300001	0.0235 4.69	0.0469 9.38	0.235	0.938	2.35
Perfluoroheptanoic acid (PFHpA)		AveID	52481 10539567	145665 18687199	527327	2211469	5098162	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorohexanesulfonic acid (PFHxS)		AveID	65546 11103494	122851 19445678	539488	2234673	5404770	0.0228 4.55	0.0455 9.10	0.228	0.910	2.28
6:2 FTS		AveID	12779 2591676	25382 4916435	128485	522288	1362440	0.0237 4.74	0.0474 9.48	0.237	0.948	2.37
Perfluoroheptanesulfonic Acid (PFHpS)		AveID	47555 9565336	95994 17007871	454534	1980624	4877217	0.0238 4.76	0.0476 9.52	0.238	0.952	2.38
Perfluorooctanoic acid (PFOA)		AveID	63790 10158282	113649 19048878	534239	2118930	5419118	0.0250 5.01	0.0501 10.0	0.250	1.00	2.50
Perfluorooctanesulfonic acid (PFOS)		AveID	41260 8132457	79827 15178857	397681	1619534	3981079	0.0232 4.64	0.0464 9.28	0.232	0.928	2.32
Perfluorononanoic acid (PFNA)		AveID	47511 8508441	82133 15826170	405985	1713219	4121000	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorononanesulfonic acid		AveID	25905 5808111	58754 11370348	293038	1205356	2961609	0.0240 4.80	0.0480 9.60	0.240	0.960	2.40
Perfluorodecanoic acid (PFDA)		AveID	30421 7260982	76021 13575847	352629	1425656	3475850	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento

Job No.: 320-44773-1

Analy Batch No.: 263888

SDG No.: _____

Instrument ID: A8_N

GC Column: GeminiC18 3 ID: 3(mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2018 05:16

Calibration End Date: 12/08/2018 06:01

Calibration ID: 42666

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
8:2 FTS		AveID	12759 2477992	24039 4603116	116067	454602	1178186	0.0240 4.79	0.0479 9.58	0.240	0.958	2.40
Perfluorooctanesulfonamide (FOSA)		AveID	51631 10850361	103838 19798058	544592	2273469	5727143	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		AveID	16712 3639349	35967 7262923	168100	721364	1739614	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorodecanesulfonic acid (PFDS)		AveID	22226 5078014	44878 9293520	227222	992860	2485603	0.0241 4.82	0.0482 9.64	0.241	0.964	2.41
Perfluoroundecanoic acid (PFUnA)		AveID	29065 5312027	53452 9634066	258113	1008854	2500097	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		AveID	16917 3445041	36571 6537164	165534	687377	1725506	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorododecanoic acid (PFDoA)		AveID	34353 5893515	65846 11946248	317033	1185940	3112000	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorotridecanoic acid (PFTriA)		AveID	26426 6191846	57051 11953632	308014	1248800	3044284	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorotetradecanoic acid (PFTeA)		AveID	9121 1804130	16635 3302713	86101	341601	860320	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
13C4 PFBA	13PF OA	Ave	7212121 7487416	7477257 7185819	7182487	7598815	7388621	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C5 PFPeA	13PF OA	Ave	4894993 5006239	4796125 4609410	4874212	4904349	4723411	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C3 PFBS	13PF OA	Ave	6930116 7092378	6880944 6913885	6841707	7299426	6716967	2.33 2.33	2.33 2.33	2.33	2.33	2.33
13C2 PFHxA	13PF OA	Ave	4866369 5058915	5162925 4684854	5017316	5440869	5097441	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C4 PFHpA	13PF OA	Ave	4674198 4860579	5124572 4489560	4872311	4979356	4910967	2.50 2.50	2.50 2.50	2.50	2.50	2.50
18O2 PFHxS	13PF OA	Ave	5578850 5468316	5629433 5126377	5637965	5780156	5408539	2.37 2.37	2.37 2.37	2.37	2.37	2.37
M2-6:2 FTS	13PF OA	Ave	820248 811783	883771 792328	791407	881057	841523	2.38 2.38	2.38 2.38	2.38	2.38	2.38
13C4 PFOA	13PF OA	Ave	4828869 4821820	4923339 4645140	4711848	4865135	4950786	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C4 PFOS	13PF OA	Ave	3839340 3690547	3809435 3420592	3598667	3697359	3685010	2.39 2.39	2.39 2.39	2.39	2.39	2.39
13C5 PFNA	13PF OA	Ave	3912198 4012004	4062511 3959575	4031300	4081734	4012443	2.50 2.50	2.50 2.50	2.50	2.50	2.50
M2-8:2 FTS	13PF OA	Ave	922564 943788	924043 904430	868680	934799	884111	2.40 2.40	2.40 2.40	2.40	2.40	2.40
13C2 PFDA	13PF OA	Ave	3521168 3790048	3681074 3385143	3500314	3800614	3554606	2.50 2.50	2.50 2.50	2.50	2.50	2.50

FORM VI
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
 RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 263888

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2018 05:16 Calibration End Date: 12/08/2018 06:01 Calibration ID: 42666

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
13C8 FOSA	13PF OA	Ave	5734441 5878788	5803663 5366514	5725680	5883149	5697512	2.50 2.50	2.50 2.50	2.50	2.50	2.50
d3-NMeFOSAA	13PF OA	Ave	1903135 1990092	1887162 1832735	1762047	2055768	1920937	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFUnA	13PF OA	Ave	2804546 2830496	2924195 2787447	2908878	2905371	2815537	2.50 2.50	2.50 2.50	2.50	2.50	2.50
d5-NEtFOSAA	13PF OA	Ave	1973935 2018360	2007117 1882597	2033921	2061954	2045443	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFDoA	13PF OA	Ave	2911099 2902486	2921731 2908000	3009330	2986227	2935236	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFTeDA	13PF OA	Ave	3308673 3505989	3462400 3275425	3467600	3427528	3463798	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFHxDA	13PF OA	Ave	5736420 6105593	6102314 5766093	6089785	6245988	5954497	2.50 2.50	2.50 2.50	2.50	2.50	2.50

Curve Type Legend:

Ave = Average ISTD
AveID = Average isotope dilution

FORM VI
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
 READBACK PERCENT ERROR

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 263888

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/08/2018 05:16 Calibration End Date: 12/08/2018 06:01 Calibration ID: 42666

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-263888/2	2018.12.07ICAL_005.d
Level 2	IC 320-263888/3	2018.12.07ICAL_006.d
Level 3	IC 320-263888/4	2018.12.07ICAL_007.d
Level 4	IC 320-263888/5	2018.12.07ICAL_008.d
Level 5	IC 320-263888/6	2018.12.07ICAL_009.d
Level 6	IC 320-263888/7	2018.12.07ICAL_010.d
Level 7	IC 320-263888/8	2018.12.07ICAL_011.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Perfluorobutanoic acid (PFBA)	-4.3 -3.5	-1.7	1.3	2.2	2.7	3.2	30 30	30	30	30	30	30
Perfluoropentanoic acid (PFPeA)	5.6 -0.9	7.2	-6.6	-1.4	-0.8	-3.0	30 30	30	30	30	30	30
Perfluorobutanesulfonic acid (PFBS)	5.4 -10.8	0.3	-1.8	1.3	6.6	-0.9	30 30	30	30	30	30	30
4:2 FTS	-7.0 -3.9	2.0	4.1	-3.7	2.9	5.6	30 30	30	30	30	30	30
Perfluorohexanoic acid (PFHxA)	6.9 -2.2	1.5	-3.3	-5.2	2.6	-0.3	30 30	30	30	30	30	30
Perfluoropentanesulfonic acid	0.5 -11.9	-1.2	2.2	3.4	7.6	-0.7	30 30	30	30	30	30	30
Perfluoroheptanoic acid (PFHpA)	-0.5 -7.8	25.9	-4.1	-1.6	-8.0	-3.9	30 30	30	30	30	30	30
Perfluorohexanesulfonic acid (PFHxS)	15.0 -7.2	6.8	-6.3	-5.4	-2.2	-0.6	30 30	30	30	30	30	30
6:2 FTS	0.4 -0.1	-7.5	4.6	-4.5	4.3	2.8	30 30	30	30	30	30	30
Perfluoroheptanesulfonic Acid (PFHpS)	-3.3 -2.9	-1.6	-1.4	4.6	3.4	1.2	30 30	30	30	30	30	30
Perfluorooctanoic acid (PFOA)	17.5 -8.8	2.6	0.8	-3.2	-2.7	-6.3	30 30	30	30	30	30	30
Perfluorooctanesulfonic acid (PFOS)	-1.2 2.0	-3.7	1.6	0.7	-0.7	1.3	30 30	30	30	30	30	30
Perfluorononanoic acid (PFNA)	15.4 -5.1	-4.0	-4.3	-0.3	-2.4	0.7	30 30	30	30	30	30	30
Perfluorononanesulfonic acid	-14.1 5.8	-1.8	3.7	3.8	2.3	0.2	30 30	30	30	30	30	30
Perfluorodecanoic acid (PFDA)	-10.8 3.5	6.6	4.0	-3.2	1.0	-1.1	30 30	30	30	30	30	30

FORM VI
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
 READBACK PERCENT ERROR

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 263888
 SDG No.: _____
 Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N
 Calibration Start Date: 12/08/2018 05:16 Calibration End Date: 12/08/2018 06:01 Calibration ID: 42666

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
8:2 FTS	5.8 -2.7	-0.5	2.2	-7.0	1.9	0.4	30 30	30	30	30	30	30
Perfluorooctanesulfonamide (FOSA)	-4.0 -1.6	-4.6	1.5	3.0	7.2	-1.6	30 30	30	30	30	30	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	-5.0 7.1	3.1	3.2	-5.1	-2.1	-1.1	30 30	30	30	30	30	30
Perfluorodecanesulfonic acid (PFDS)	-10.2 5.4	-8.6	-2.1	4.1	4.6	6.7	30 30	30	30	30	30	30
Perfluoroundecanoic acid (PFUnA)	13.4 -5.4	0.0	-2.9	-5.0	-2.8	2.7	30 30	30	30	30	30	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.3 1.6	6.6	-4.7	-2.5	-1.3	-0.1	30 30	30	30	30	30	30
Perfluorododecanoic acid (PFDoA)	10.8 -3.6	5.8	-1.1	-6.8	-0.5	-4.7	30 30	30	30	30	30	30
Perfluorotridecanoic acid (PFTriA)	-10.3 1.5	-3.5	1.1	3.3	2.5	5.4	30 30	30	30	30	30	30
Perfluorotetradecanoic acid (PFTeA)	9.0 -0.4	-5.1	-1.9	-1.5	-1.8	1.7	30 30	30	30	30	30	30

Calibration

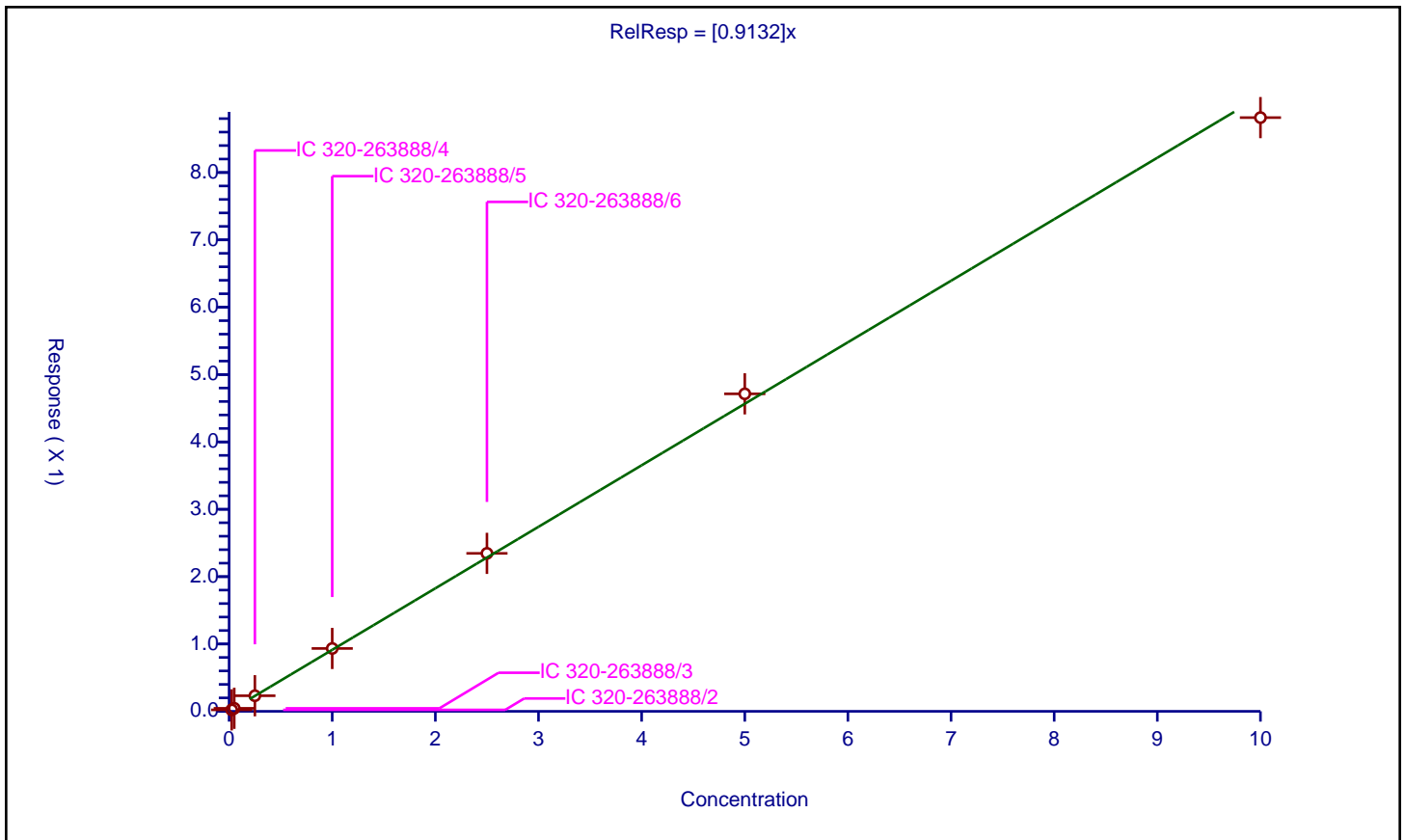
/ Perfluorobutanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9132

Error Coefficients	
Standard Error:	12200000
Relative Standard Error:	3.1
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.021844	2.5	7212121.0	0.873751	Y
2	IC 320-263888/3	0.05	0.044883	2.5	7477257.0	0.897669	Y
3	IC 320-263888/4	0.25	0.231389	2.5	7182487.0	0.925555	Y
4	IC 320-263888/5	1.0	0.933295	2.5	7598815.0	0.933295	Y
5	IC 320-263888/6	2.5	2.345395	2.5	7388621.0	0.938158	Y
6	IC 320-263888/7	5.0	4.713931	2.5	7487416.0	0.942786	Y
7	IC 320-263888/8	10.0	8.814976	2.5	7185819.0	0.881498	Y



Calibration

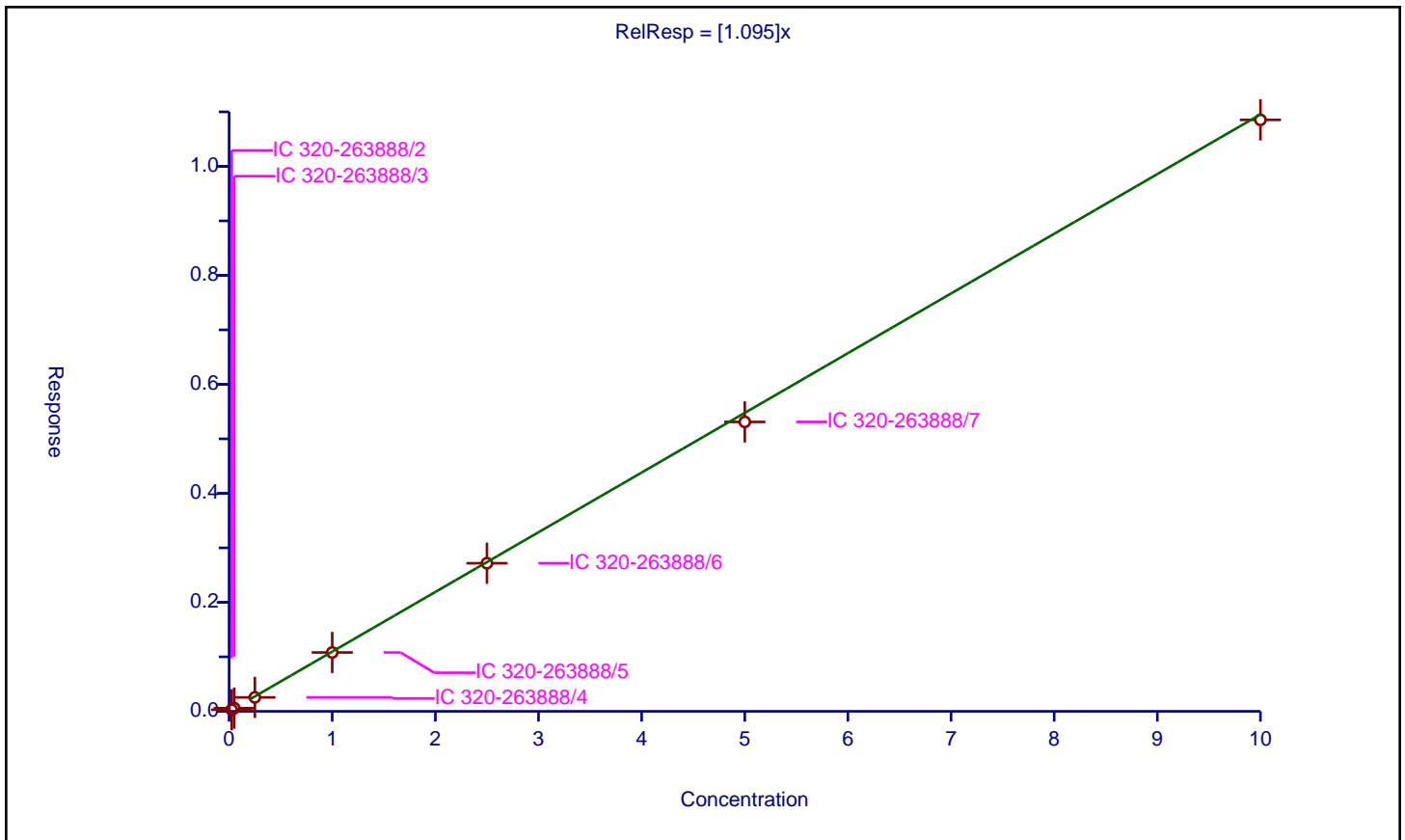
/ Perfluoropentanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.095

Error Coefficients	
Standard Error:	9530000
Relative Standard Error:	4.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.02891	2.5	4894993.0	1.156406	Y
2	IC 320-263888/3	0.05	0.058705	2.5	4796125.0	1.174094	Y
3	IC 320-263888/4	0.25	0.255659	2.5	4874212.0	1.022637	Y
4	IC 320-263888/5	1.0	1.079953	2.5	4904349.0	1.079953	Y
5	IC 320-263888/6	2.5	2.717602	2.5	4723411.0	1.087041	Y
6	IC 320-263888/7	5.0	5.310825	2.5	5006239.0	1.062165	Y
7	IC 320-263888/8	10.0	10.85327	2.5	4609410.0	1.085327	Y



Calibration

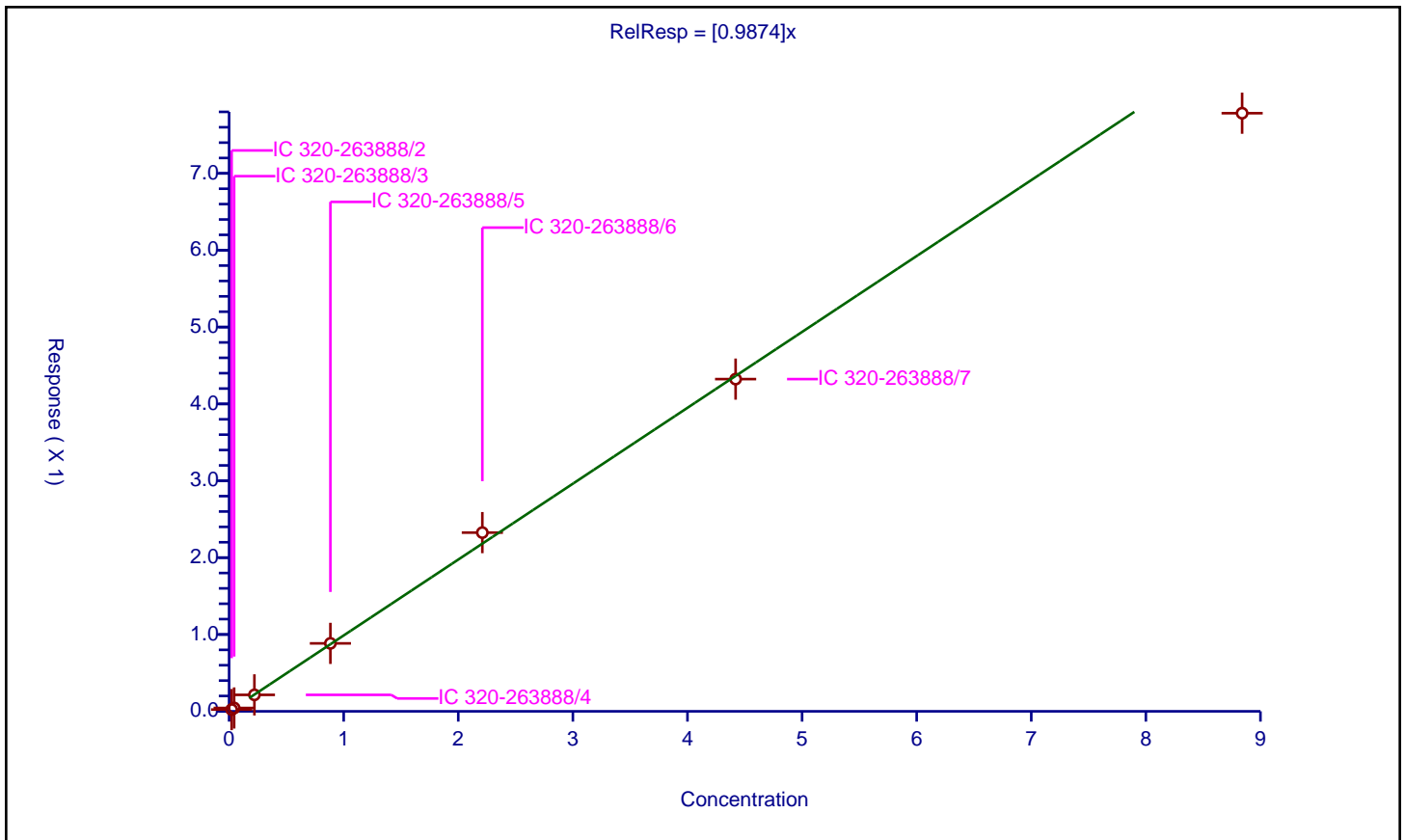
/ Perfluorobutanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9874

Error Coefficients	
Standard Error:	11300000
Relative Standard Error:	5.7
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.0221	0.022997	2.325	6930116.0	1.040588	Y
2	IC 320-263888/3	0.0442	0.043764	2.325	6880944.0	0.990131	Y
3	IC 320-263888/4	0.221	0.214365	2.325	6841707.0	0.969975	Y
4	IC 320-263888/5	0.884	0.884318	2.325	7299426.0	1.000359	Y
5	IC 320-263888/6	2.21	2.325506	2.325	6716967.0	1.052265	Y
6	IC 320-263888/7	4.42	4.3229	2.325	7092378.0	0.978032	Y
7	IC 320-263888/8	8.84	7.782849	2.325	6913885.0	0.880413	Y



Calibration

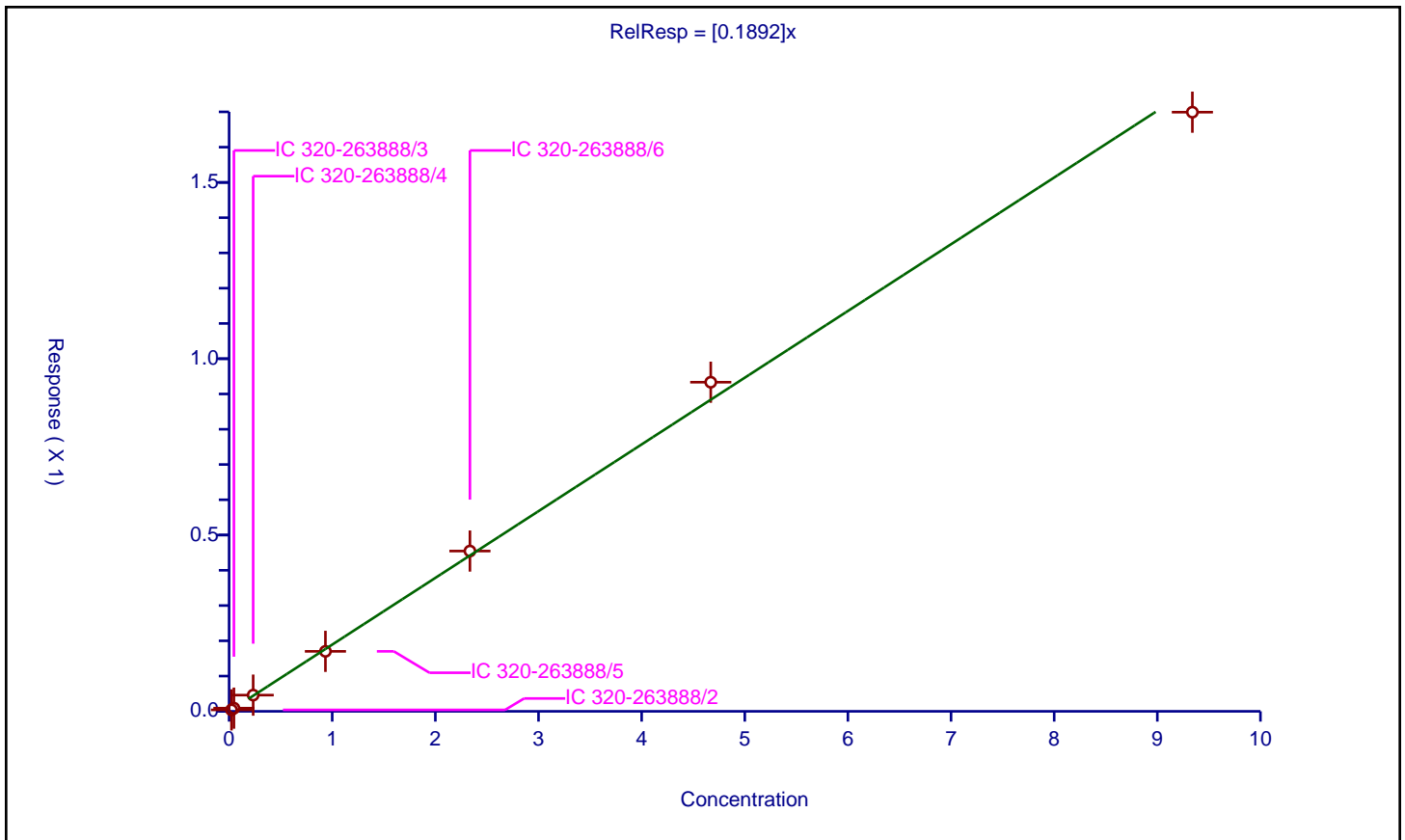
/ 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1892

Error Coefficients	
Standard Error:	2440000
Relative Standard Error:	4.8
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.02335	0.004109	2.325	6930116.0	0.175979	Y
2	IC 320-263888/3	0.0467	0.009017	2.325	6880944.0	0.193082	Y
3	IC 320-263888/4	0.2335	0.045992	2.325	6841707.0	0.196966	Y
4	IC 320-263888/5	0.934	0.170152	2.325	7299426.0	0.182176	Y
5	IC 320-263888/6	2.335	0.454544	2.325	6716967.0	0.194665	Y
6	IC 320-263888/7	4.67	0.933383	2.325	7092378.0	0.199868	Y
7	IC 320-263888/8	9.34	1.699184	2.325	6913885.0	0.181926	Y



Calibration

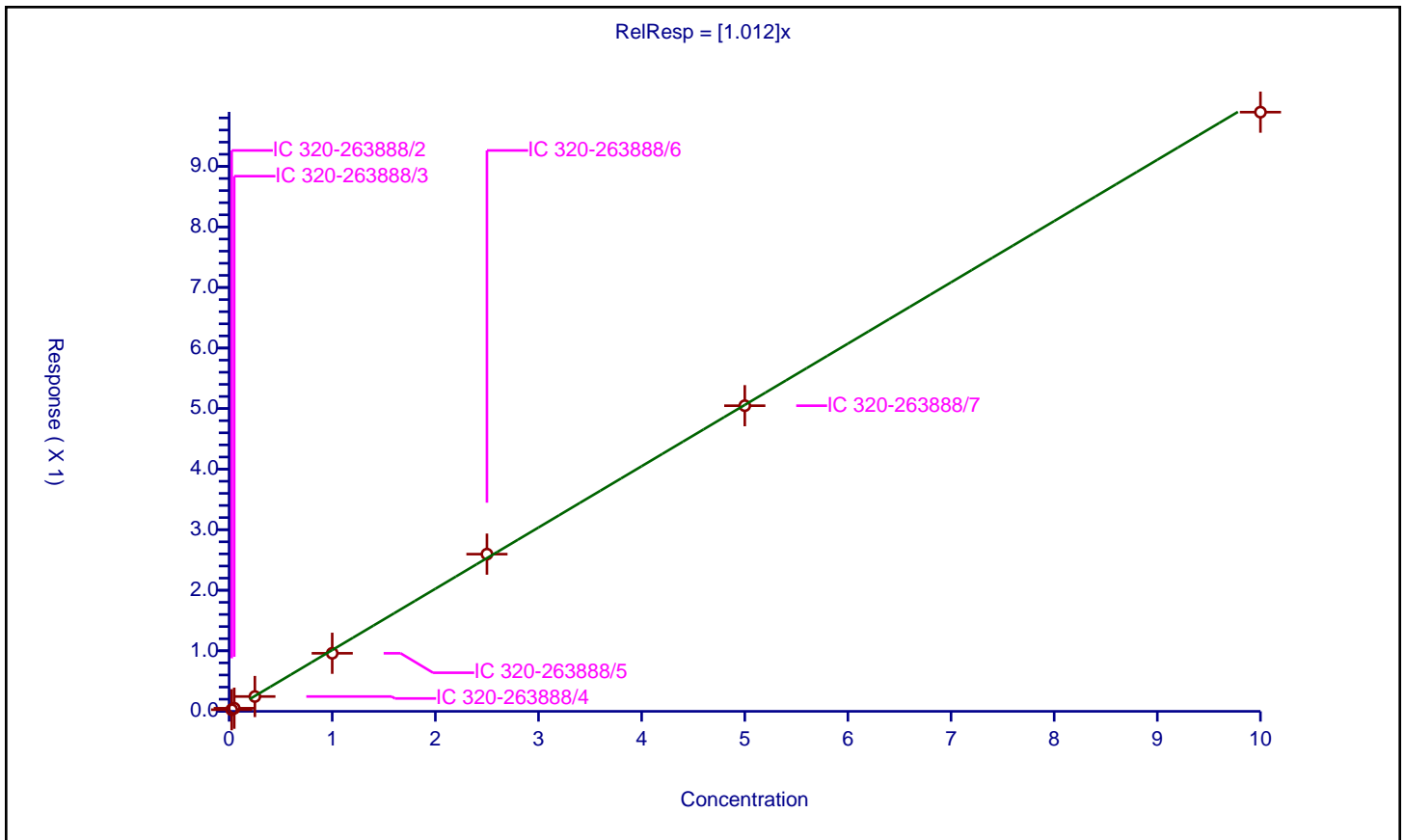
/ Perfluorohexanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.012

Error Coefficients	
Standard Error:	8950000
Relative Standard Error:	4.1
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.027048	2.5	4866369.0	1.081915	Y
2	IC 320-263888/3	0.05	0.051387	2.5	5162925.0	1.027741	Y
3	IC 320-263888/4	0.25	0.244642	2.5	5017316.0	0.978567	Y
4	IC 320-263888/5	1.0	0.959004	2.5	5440869.0	0.959004	Y
5	IC 320-263888/6	2.5	2.596301	2.5	5097441.0	1.03852	Y
6	IC 320-263888/7	5.0	5.047768	2.5	5058915.0	1.009554	Y
7	IC 320-263888/8	10.0	9.8957	2.5	4684854.0	0.98957	Y



Calibration

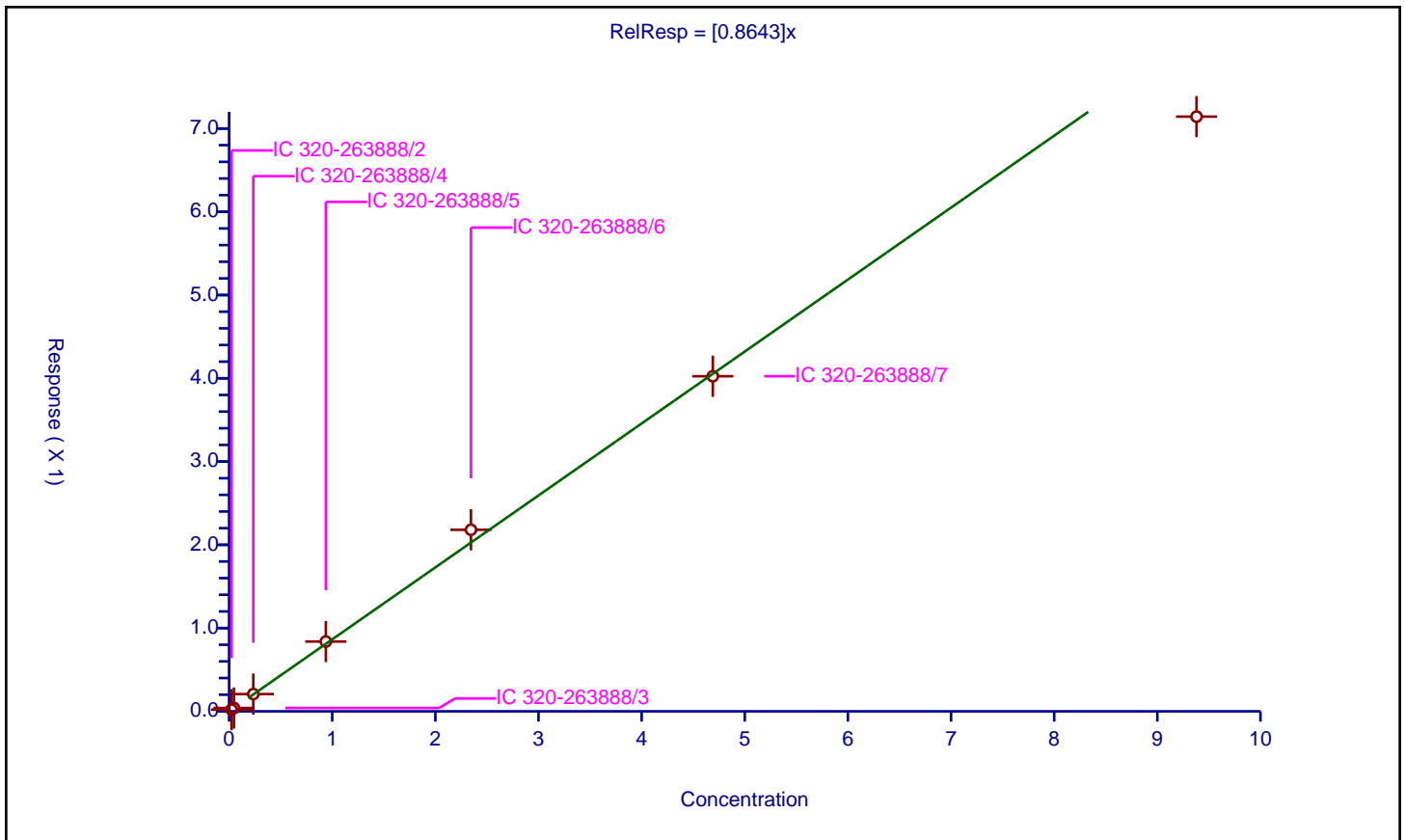
/ Perfluoropentanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8643

Error Coefficients	
Standard Error:	10400000
Relative Standard Error:	6.0
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.02345	0.020368	2.325	6930116.0	0.86856	Y
2	IC 320-263888/3	0.0469	0.040069	2.325	6880944.0	0.854349	Y
3	IC 320-263888/4	0.2345	0.207237	2.325	6841707.0	0.88374	Y
4	IC 320-263888/5	0.938	0.838503	2.325	7299426.0	0.893927	Y
5	IC 320-263888/6	2.345	2.180672	2.325	6716967.0	0.929924	Y
6	IC 320-263888/7	4.69	4.024727	2.325	7092378.0	0.858151	Y
7	IC 320-263888/8	9.38	7.142926	2.325	6913885.0	0.761506	Y



Calibration

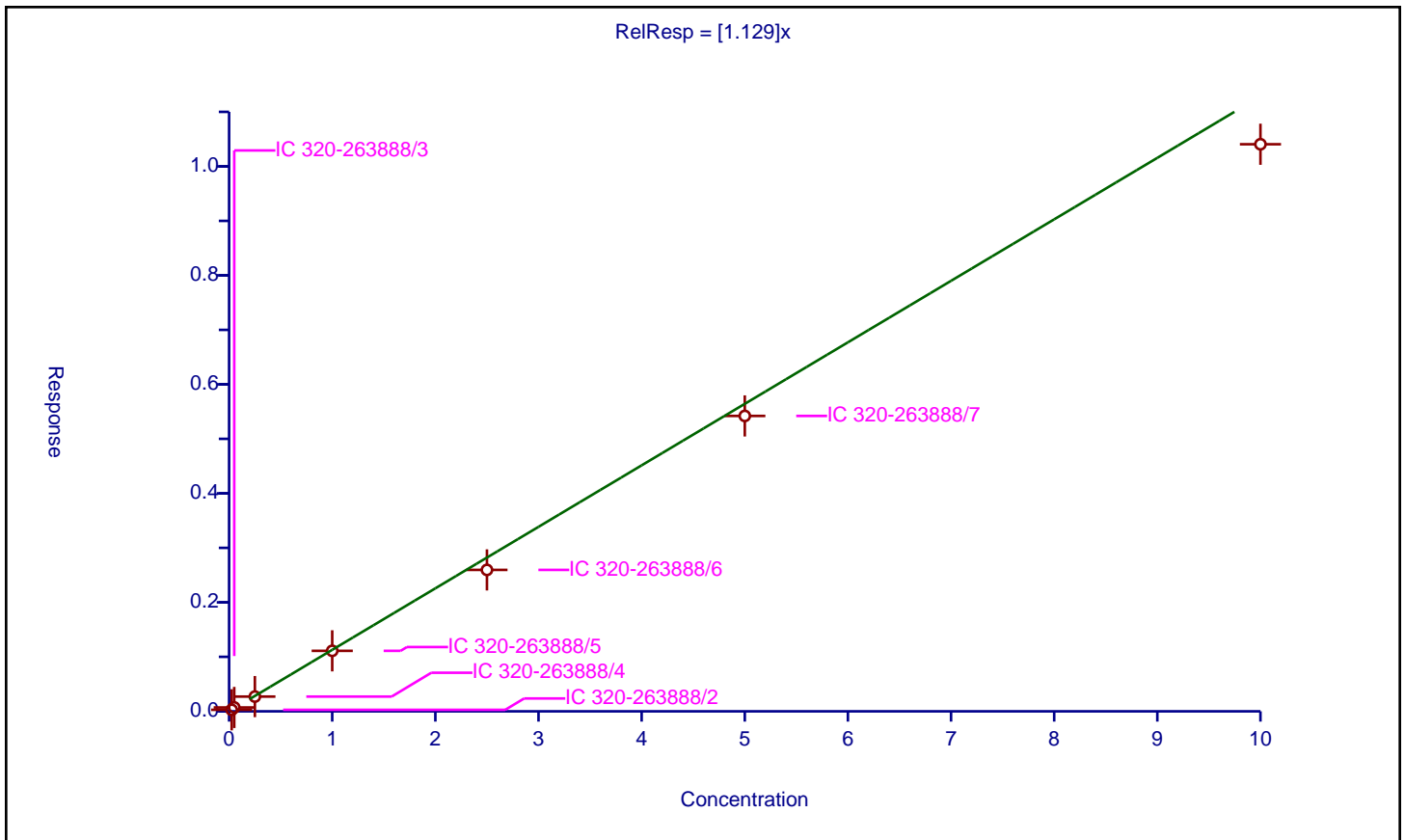
/ Perfluoroheptanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.129

Error Coefficients	
Standard Error:	9050000
Relative Standard Error:	11.8
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.02807	2.5	4674198.0	1.122781	Y
2	IC 320-263888/3	0.05	0.071062	2.5	5124572.0	1.421241	Y
3	IC 320-263888/4	0.25	0.270573	2.5	4872311.0	1.082293	Y
4	IC 320-263888/5	1.0	1.110319	2.5	4979356.0	1.110319	Y
5	IC 320-263888/6	2.5	2.595294	2.5	4910967.0	1.038118	Y
6	IC 320-263888/7	5.0	5.420942	2.5	4860579.0	1.084188	Y
7	IC 320-263888/8	10.0	10.405919	2.5	4489560.0	1.040592	Y



Calibration

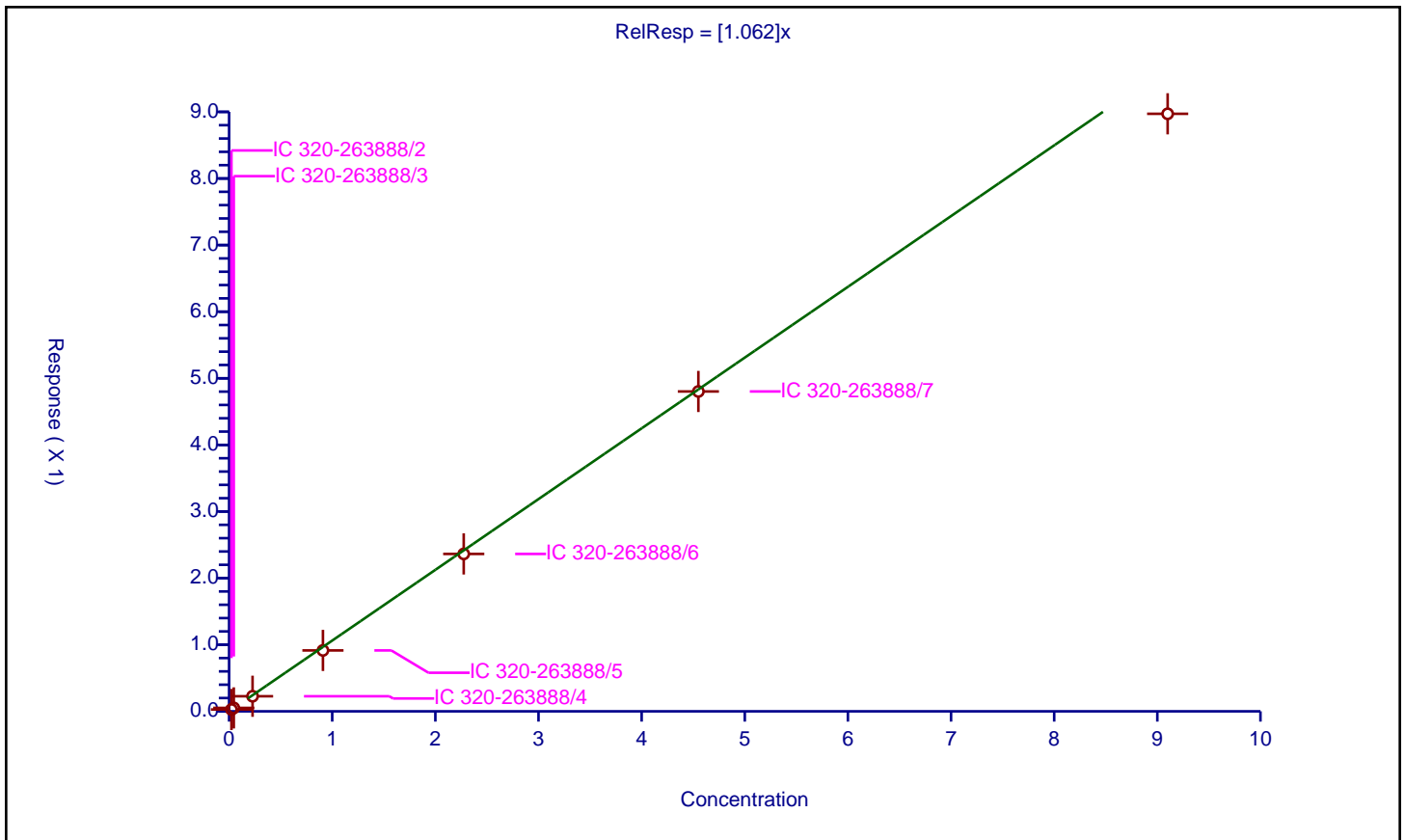
/ Perfluorohexanesulfonic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.062

Error Coefficients	
Standard Error:	9450000
Relative Standard Error:	8.1
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.02275	0.027786	2.365	5578850.0	1.221381	Y
2	IC 320-263888/3	0.0455	0.051611	2.365	5629433.0	1.134315	Y
3	IC 320-263888/4	0.2275	0.226303	2.365	5637965.0	0.994739	Y
4	IC 320-263888/5	0.91	0.914335	2.365	5780156.0	1.004764	Y
5	IC 320-263888/6	2.275	2.363352	2.365	5408539.0	1.038836	Y
6	IC 320-263888/7	4.55	4.802166	2.365	5468316.0	1.055421	Y
7	IC 320-263888/8	9.1	8.971059	2.365	5126377.0	0.985831	Y



Calibration

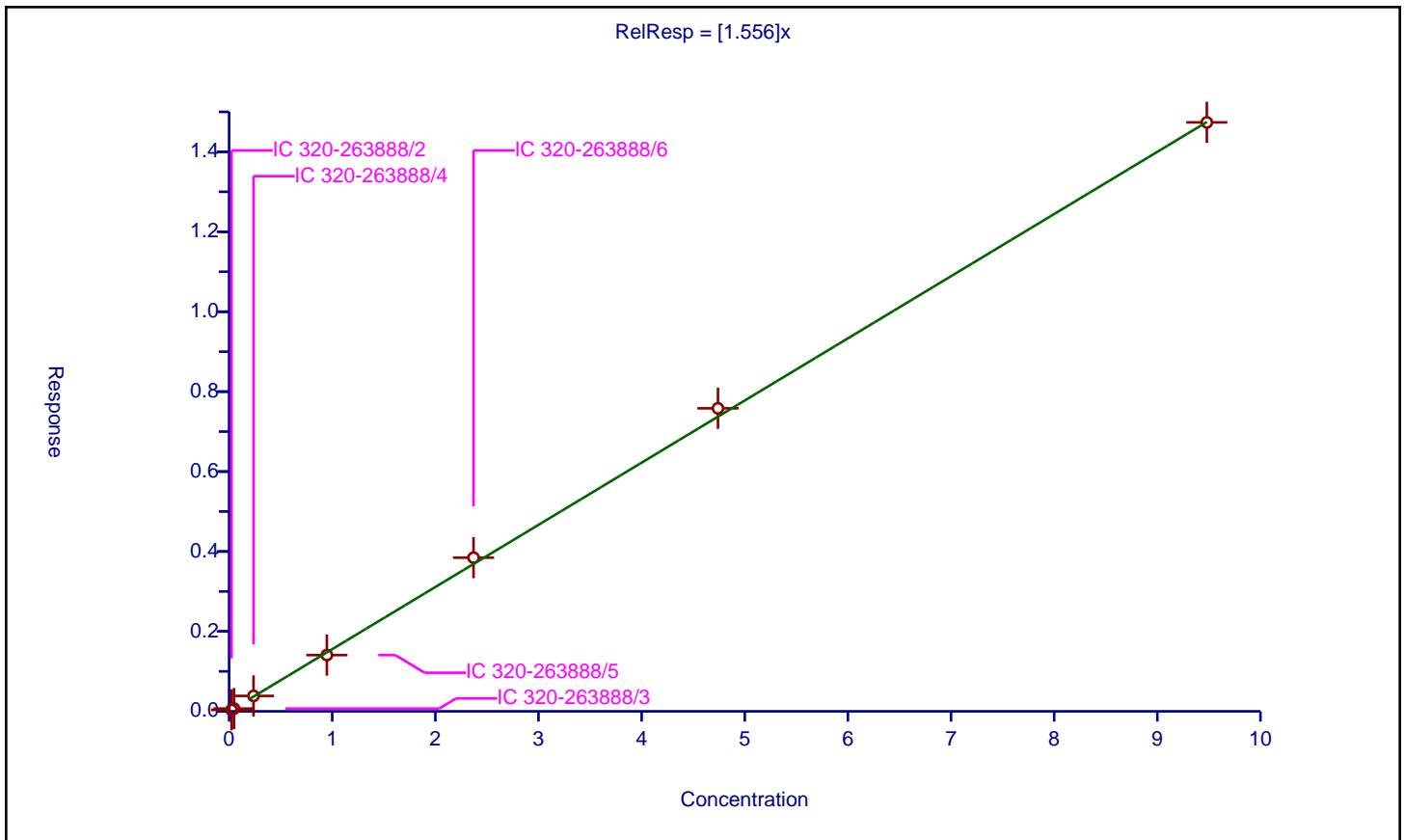
/ 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.556

Error Coefficients	
Standard Error:	2350000
Relative Standard Error:	4.6
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.0237	0.037001	2.375	820248.0	1.56123	Y
2	IC 320-263888/3	0.0474	0.06821	2.375	883771.0	1.439035	Y
3	IC 320-263888/4	0.237	0.385581	2.375	791407.0	1.626926	Y
4	IC 320-263888/5	0.948	1.407893	2.375	881057.0	1.485119	Y
5	IC 320-263888/6	2.37	3.845165	2.375	841523.0	1.622433	Y
6	IC 320-263888/7	4.74	7.582359	2.375	811783.0	1.599654	Y
7	IC 320-263888/8	9.48	14.736994	2.375	792328.0	1.554535	Y



Calibration

/ Perfluoroheptanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

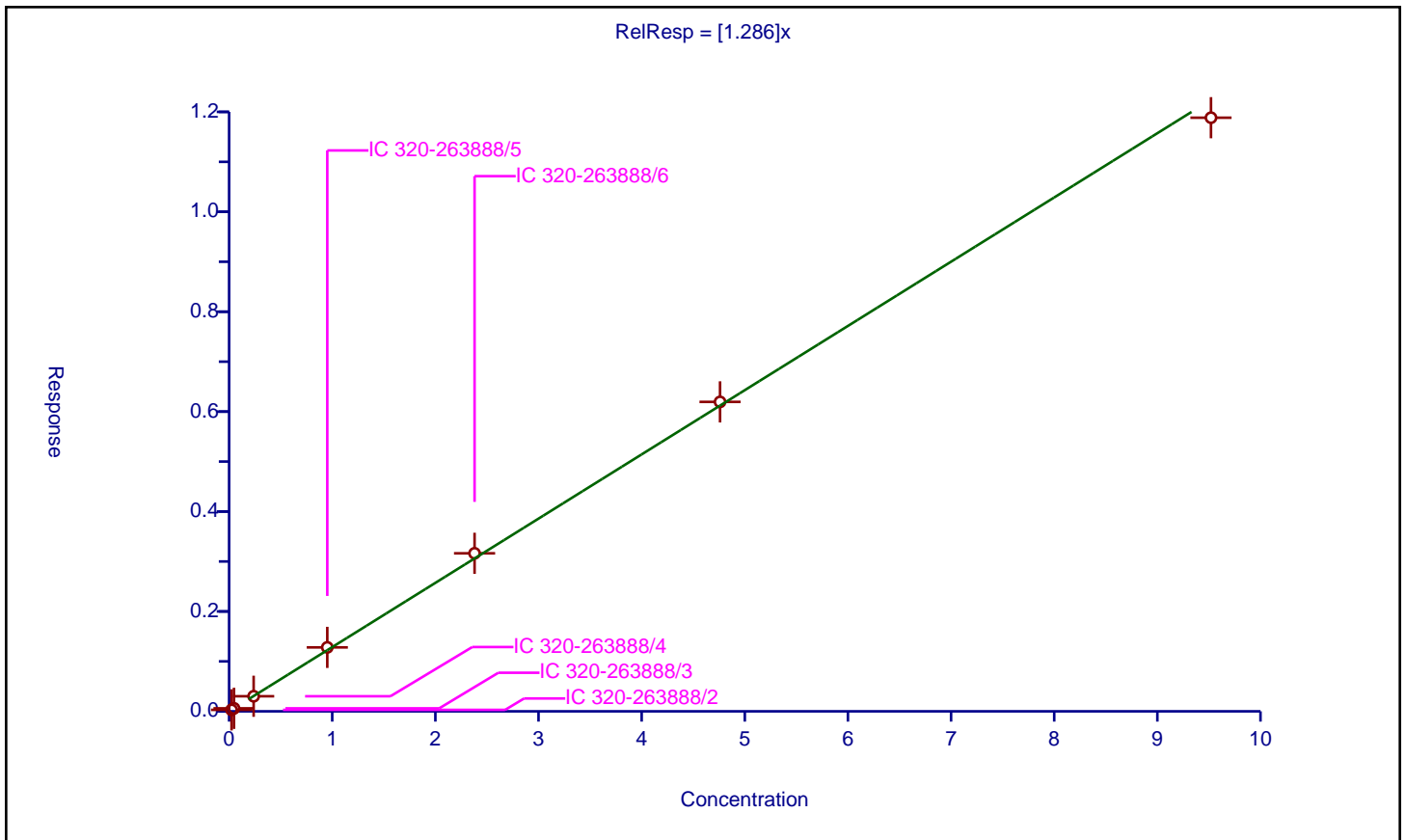
Curve Coefficients

Intercept: 0
 Slope: 1.286

Error Coefficients

Standard Error: 8250000
 Relative Standard Error: 3.1
 Correlation Coefficient: 0.996
 Coefficient of Determination (Adjusted): 0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.0238	0.029603	2.39	3839340.0	1.243829	Y
2	IC 320-263888/3	0.0476	0.060226	2.39	3809435.0	1.265245	Y
3	IC 320-263888/4	0.238	0.301872	2.39	3598667.0	1.268369	Y
4	IC 320-263888/5	0.952	1.28029	2.39	3697359.0	1.344842	Y
5	IC 320-263888/6	2.38	3.163234	2.39	3685010.0	1.32909	Y
6	IC 320-263888/7	4.76	6.194516	2.39	3690547.0	1.301369	Y
7	IC 320-263888/8	9.52	11.88356	2.39	3420592.0	1.248273	Y



Calibration

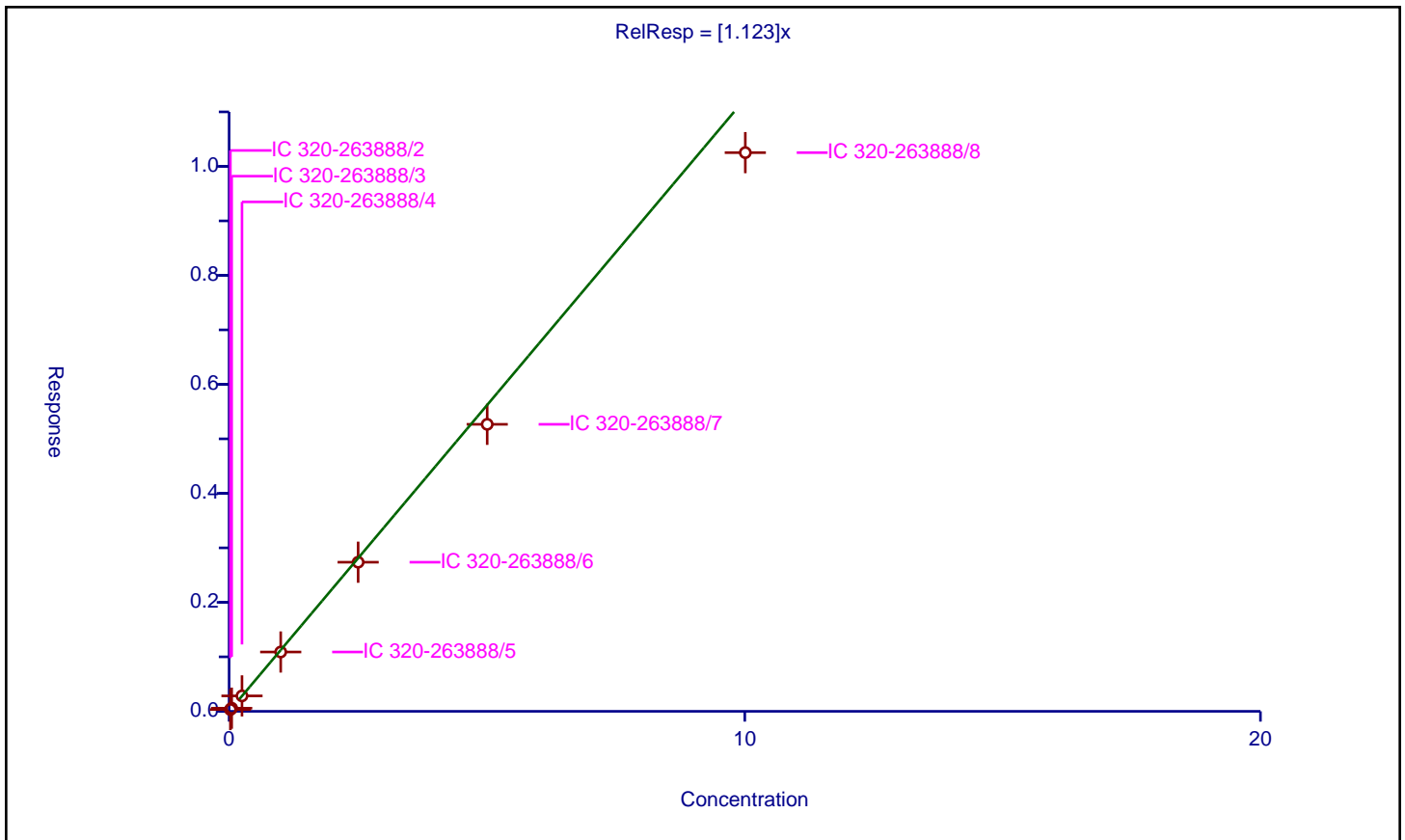
/ Perfluorooctanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.123

Error Coefficients	
Standard Error:	9130000
Relative Standard Error:	8.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025025	0.033025	2.5	4828869.0	1.319694	Y
2	IC 320-263888/3	0.05005	0.057709	2.5	4923339.0	1.153033	Y
3	IC 320-263888/4	0.25025	0.283455	2.5	4711848.0	1.132688	Y
4	IC 320-263888/5	1.001	1.088834	2.5	4865135.0	1.087746	Y
5	IC 320-263888/6	2.5025	2.736494	2.5	4950786.0	1.093504	Y
6	IC 320-263888/7	5.005	5.26683	2.5	4821820.0	1.052314	Y
7	IC 320-263888/8	10.01	10.252047	2.5	4645140.0	1.024181	Y



Calibration

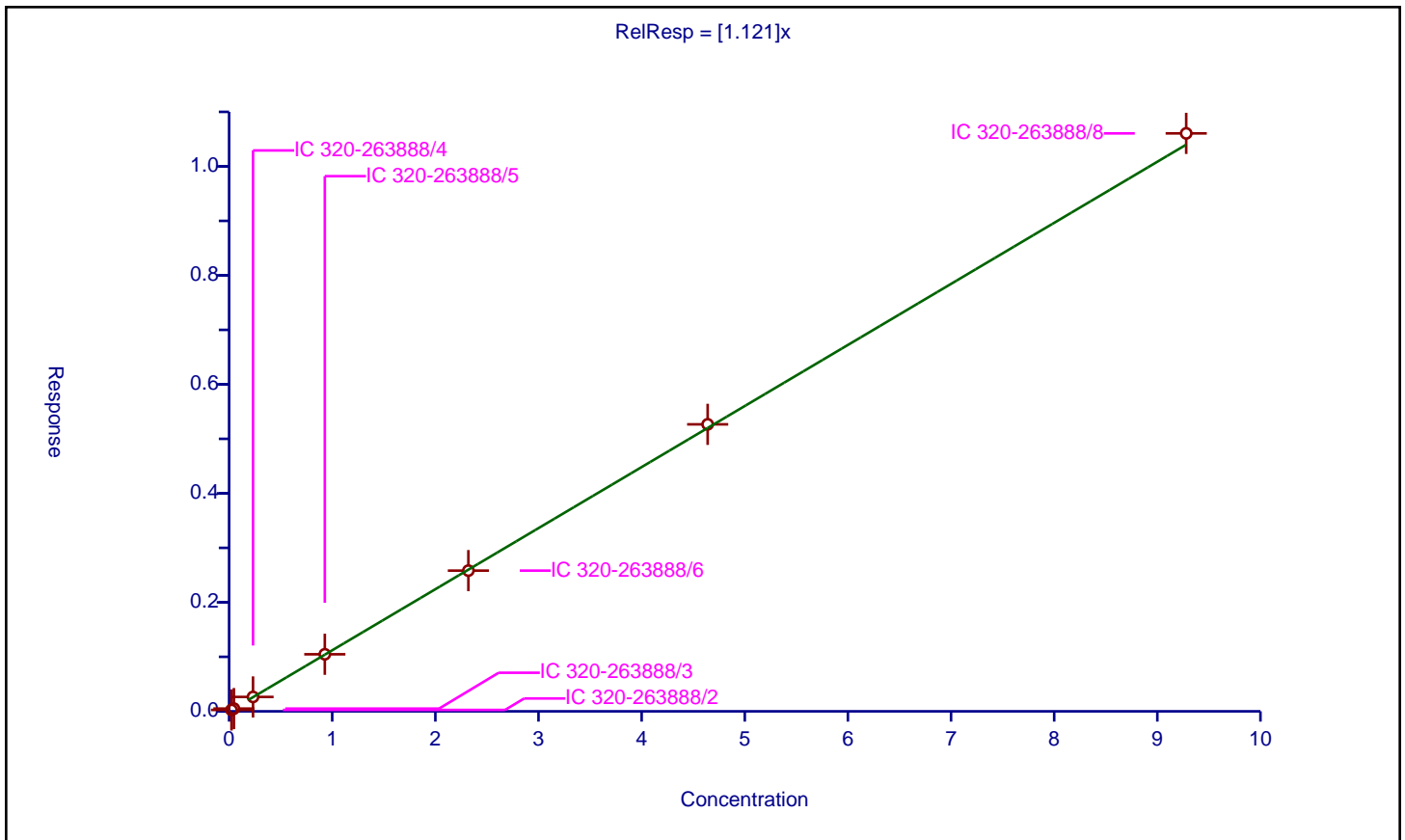
/ Perfluorooctanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.121

Error Coefficients	
Standard Error:	7250000
Relative Standard Error:	2.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.0232	0.025684	2.39	3839340.0	1.107089	Y
2	IC 320-263888/3	0.0464	0.050083	2.39	3809435.0	1.079367	Y
3	IC 320-263888/4	0.232	0.264114	2.39	3598667.0	1.138422	Y
4	IC 320-263888/5	0.928	1.046879	2.39	3697359.0	1.128102	Y
5	IC 320-263888/6	2.32	2.582023	2.39	3685010.0	1.112941	Y
6	IC 320-263888/7	4.64	5.266583	2.39	3690547.0	1.135039	Y
7	IC 320-263888/8	9.28	10.605611	2.39	3420592.0	1.142846	Y



Calibration

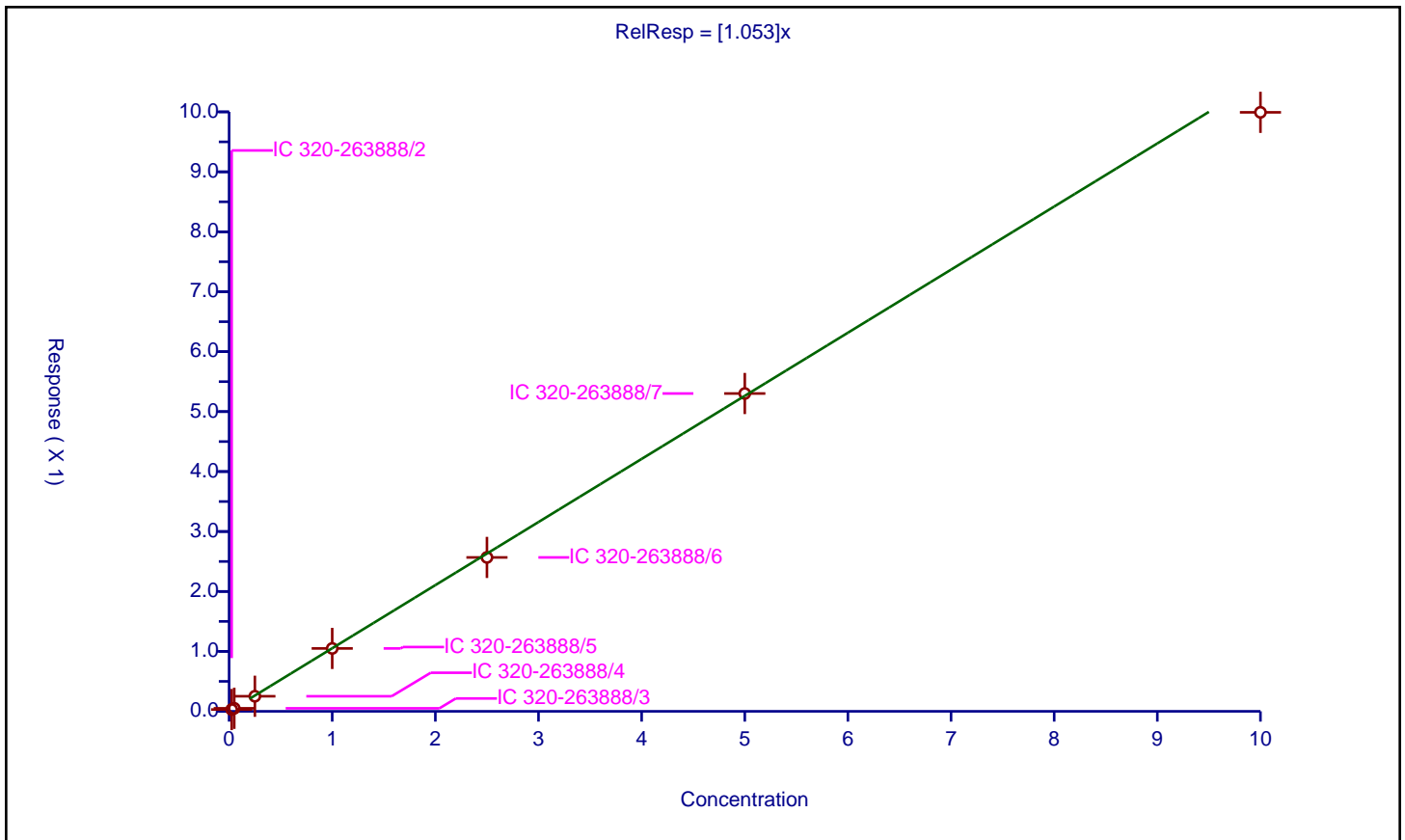
/ Perfluorononanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.053

Error Coefficients	
Standard Error:	7560000
Relative Standard Error:	7.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.030361	2.5	3912198.0	1.214432	Y
2	IC 320-263888/3	0.05	0.050543	2.5	4062511.0	1.010865	Y
3	IC 320-263888/4	0.25	0.251771	2.5	4031300.0	1.007082	Y
4	IC 320-263888/5	1.0	1.049321	2.5	4081734.0	1.049321	Y
5	IC 320-263888/6	2.5	2.567638	2.5	4012443.0	1.027055	Y
6	IC 320-263888/7	5.0	5.301865	2.5	4012004.0	1.060373	Y
7	IC 320-263888/8	10.0	9.992341	2.5	3959575.0	0.999234	Y



Calibration

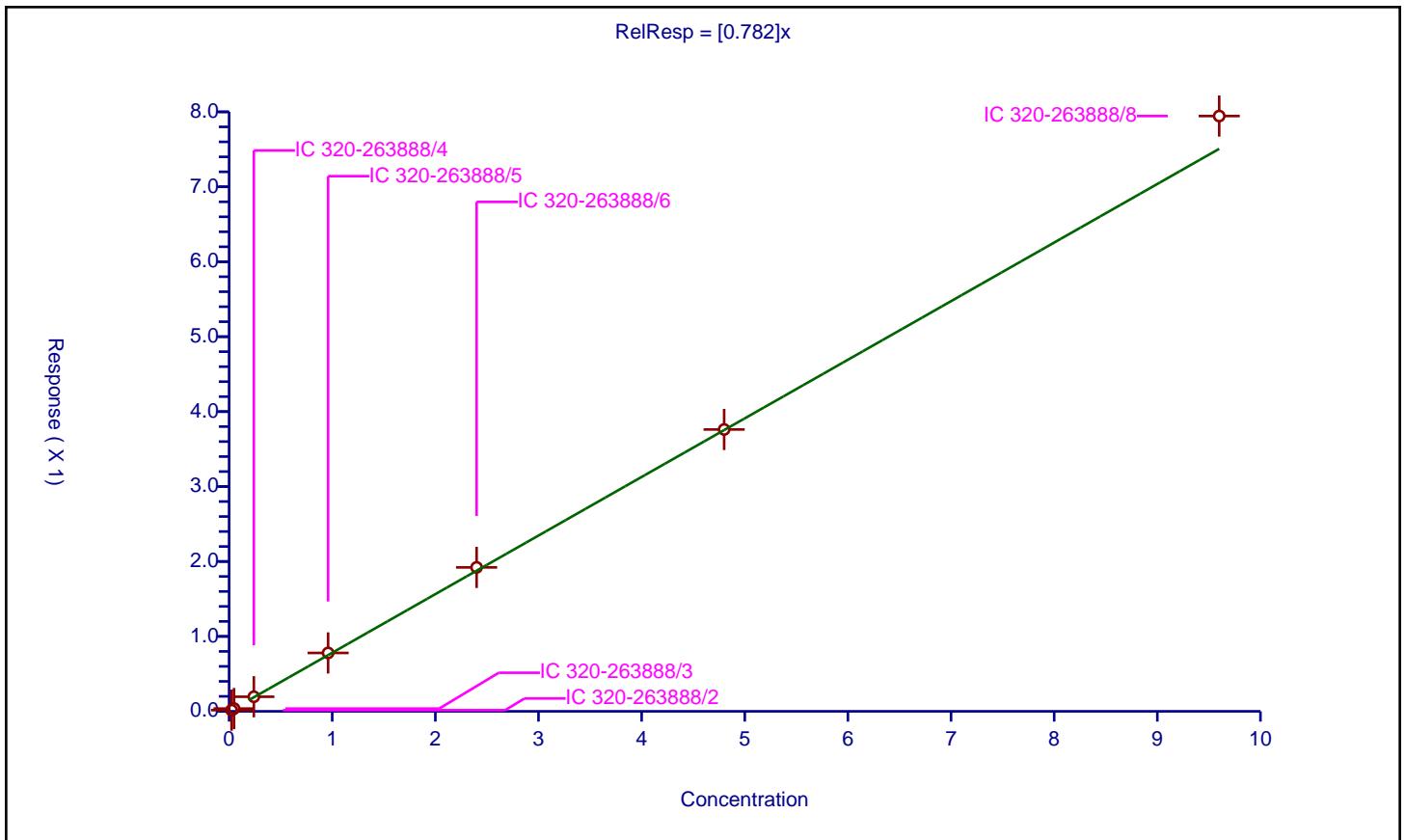
/ Perfluorononanesulfonic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.782

Error Coefficients	
Standard Error:	5370000
Relative Standard Error:	6.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.024	0.016126	2.39	3839340.0	0.671914	Y
2	IC 320-263888/3	0.048	0.036862	2.39	3809435.0	0.767951	Y
3	IC 320-263888/4	0.24	0.194617	2.39	3598667.0	0.810903	Y
4	IC 320-263888/5	0.96	0.779151	2.39	3697359.0	0.811616	Y
5	IC 320-263888/6	2.4	1.920821	2.39	3685010.0	0.800342	Y
6	IC 320-263888/7	4.8	3.761335	2.39	3690547.0	0.783612	Y
7	IC 320-263888/8	9.6	7.94457	2.39	3420592.0	0.827559	Y



Calibration

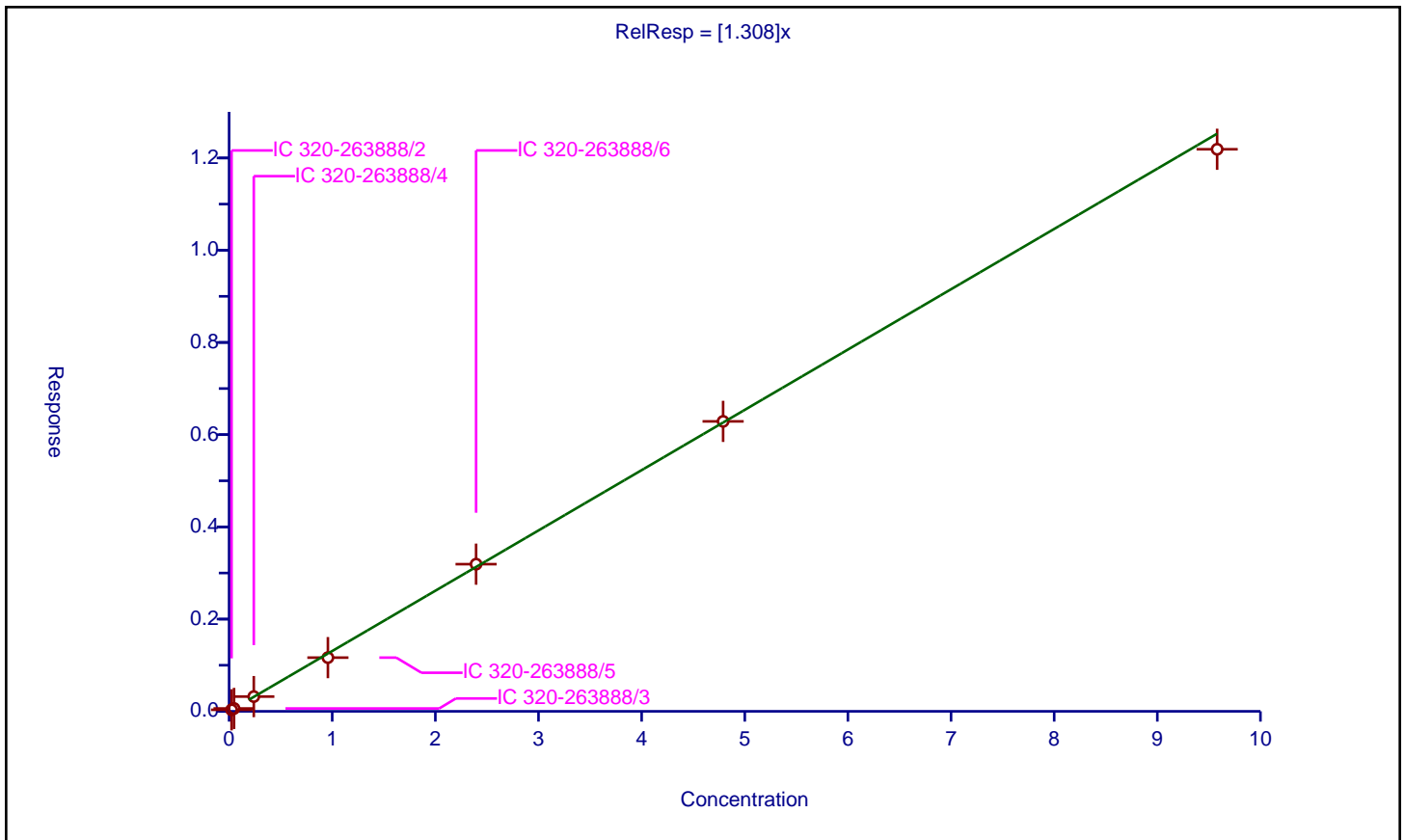
/ 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.308

Error Coefficients	
Standard Error:	2200000
Relative Standard Error:	4.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.02395	0.033123	2.395	922564.0	1.382993	Y
2	IC 320-263888/3	0.0479	0.062306	2.395	924043.0	1.300751	Y
3	IC 320-263888/4	0.2395	0.320003	2.395	868680.0	1.336131	Y
4	IC 320-263888/5	0.958	1.164712	2.395	934799.0	1.215775	Y
5	IC 320-263888/6	2.395	3.19163	2.395	884111.0	1.332622	Y
6	IC 320-263888/7	4.79	6.288267	2.395	943788.0	1.312791	Y
7	IC 320-263888/8	9.58	12.189404	2.395	904430.0	1.27238	Y



Calibration

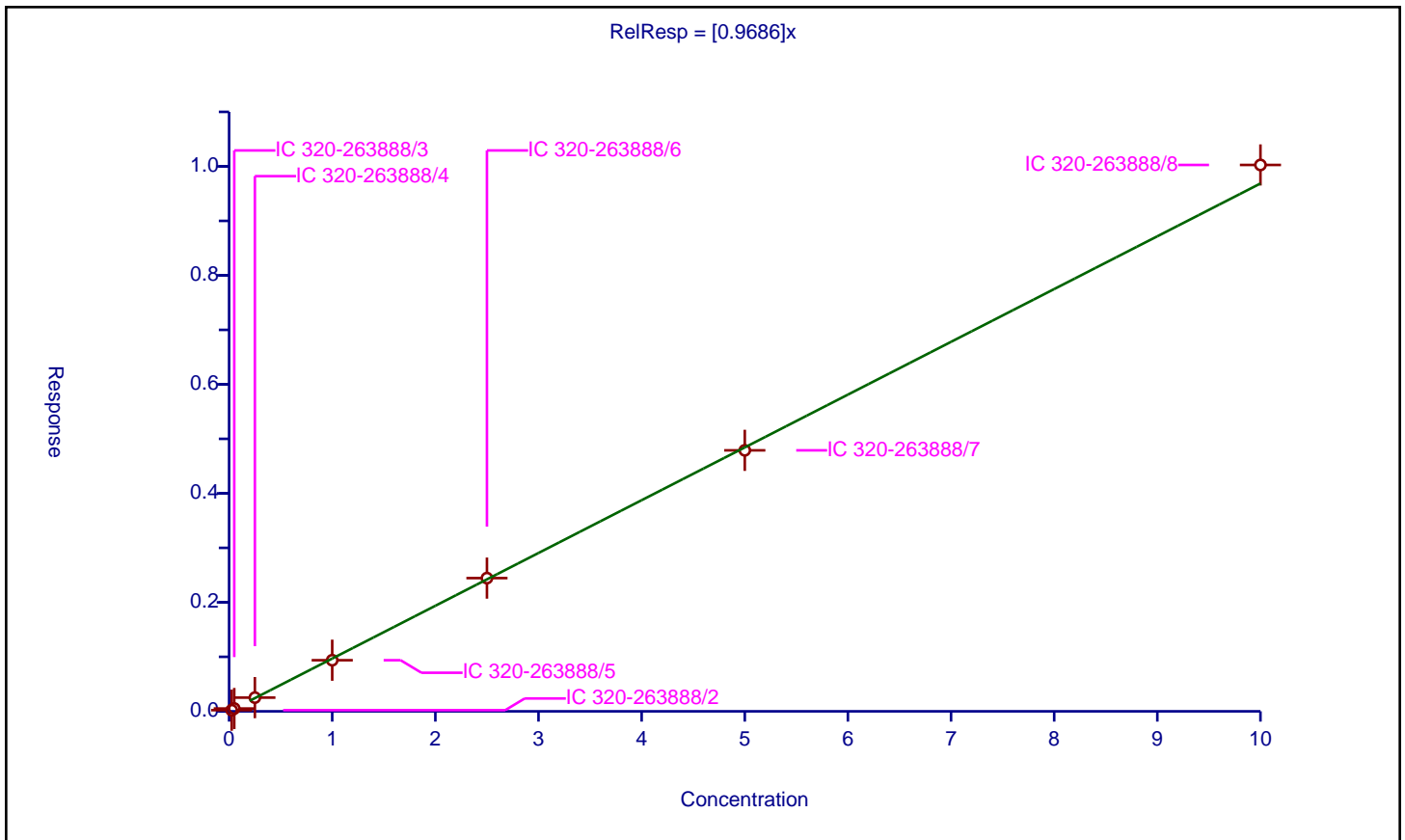
/ Perfluorodecanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9686

Error Coefficients	
Standard Error:	6470000
Relative Standard Error:	5.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.021599	2.5	3521168.0	0.863946	Y
2	IC 320-263888/3	0.05	0.05163	2.5	3681074.0	1.032593	Y
3	IC 320-263888/4	0.25	0.251855	2.5	3500314.0	1.007421	Y
4	IC 320-263888/5	1.0	0.93778	2.5	3800614.0	0.93778	Y
5	IC 320-263888/6	2.5	2.44461	2.5	3554606.0	0.977844	Y
6	IC 320-263888/7	5.0	4.789505	2.5	3790048.0	0.957901	Y
7	IC 320-263888/8	10.0	10.026051	2.5	3385143.0	1.002605	Y



Calibration

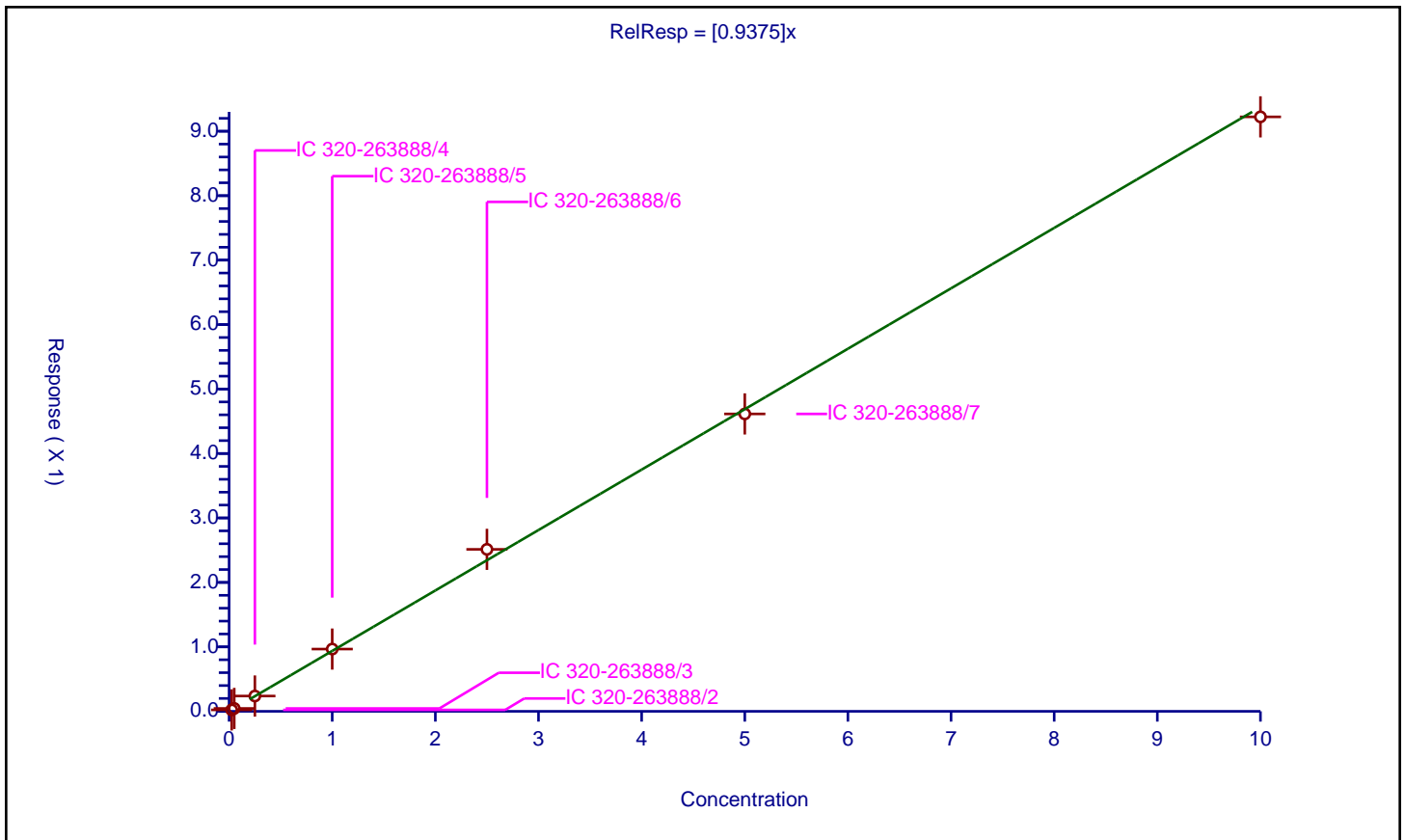
/ Perfluorooctanesulfonamide

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9375

Error Coefficients	
Standard Error:	9560000
Relative Standard Error:	4.2
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.022509	2.5	5734441.0	0.900367	Y
2	IC 320-263888/3	0.05	0.04473	2.5	5803663.0	0.89459	Y
3	IC 320-263888/4	0.25	0.237785	2.5	5725680.0	0.951139	Y
4	IC 320-263888/5	1.0	0.966094	2.5	5883149.0	0.966094	Y
5	IC 320-263888/6	2.5	2.513002	2.5	5697512.0	1.005201	Y
6	IC 320-263888/7	5.0	4.6142	2.5	5878788.0	0.92284	Y
7	IC 320-263888/8	10.0	9.22296	2.5	5366514.0	0.922296	Y



Calibration

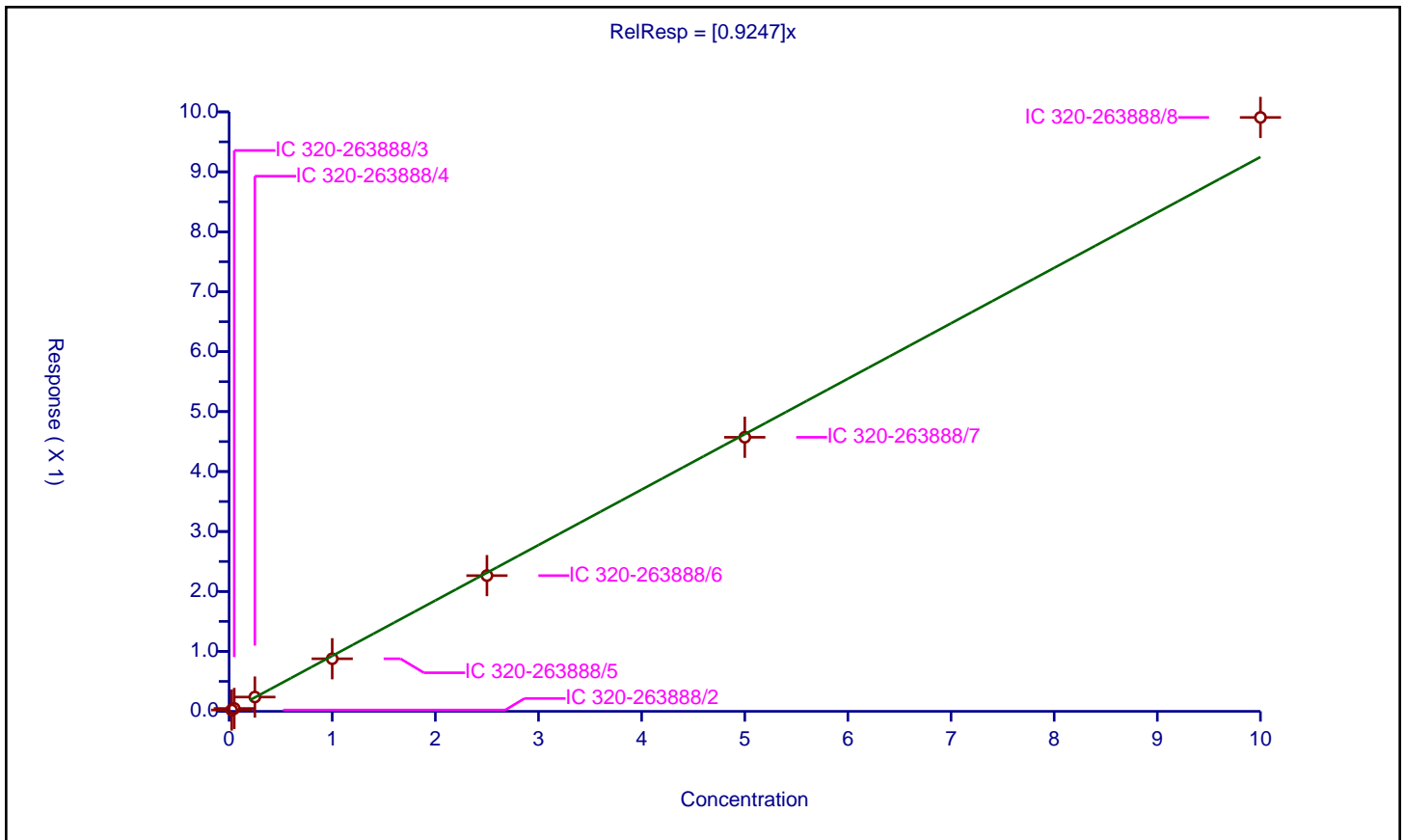
/ N-methylperfluorooctanesulfonamidoacetic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9247

Error Coefficients	
Standard Error:	3410000
Relative Standard Error:	4.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.021953	2.5	1903135.0	0.87813	Y
2	IC 320-263888/3	0.05	0.047647	2.5	1887162.0	0.952939	Y
3	IC 320-263888/4	0.25	0.238501	2.5	1762047.0	0.954004	Y
4	IC 320-263888/5	1.0	0.877244	2.5	2055768.0	0.877244	Y
5	IC 320-263888/6	2.5	2.264018	2.5	1920937.0	0.905607	Y
6	IC 320-263888/7	5.0	4.571835	2.5	1990092.0	0.914367	Y
7	IC 320-263888/8	10.0	9.907219	2.5	1832735.0	0.990722	Y



Calibration

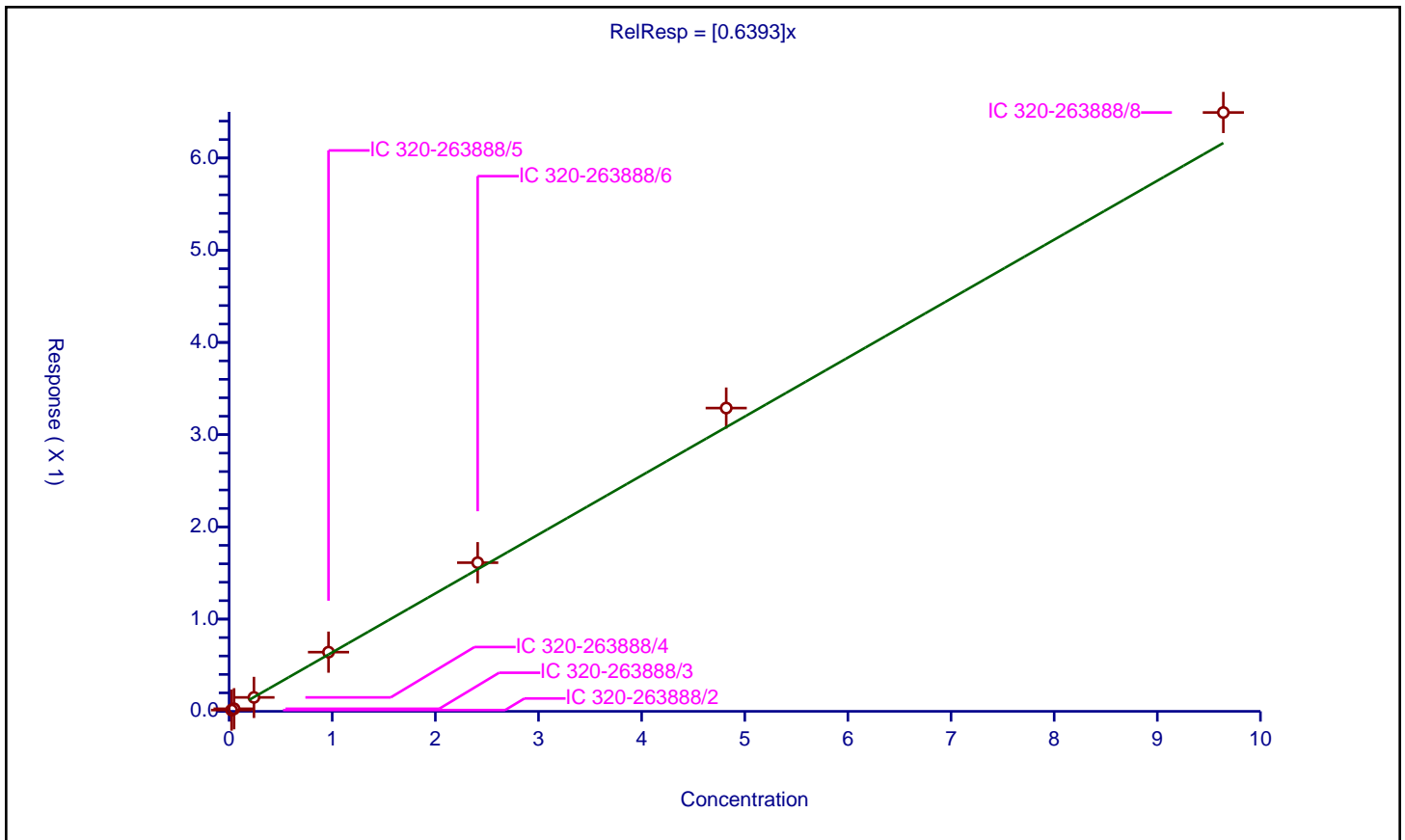
/ Perfluorodecanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6393

Error Coefficients	
Standard Error:	4460000
Relative Standard Error:	7.0
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.0241	0.013836	2.39	3839340.0	0.574097	Y
2	IC 320-263888/3	0.0482	0.028156	2.39	3809435.0	0.584149	Y
3	IC 320-263888/4	0.241	0.150906	2.39	3598667.0	0.626166	Y
4	IC 320-263888/5	0.964	0.641792	2.39	3697359.0	0.665759	Y
5	IC 320-263888/6	2.41	1.612096	2.39	3685010.0	0.66892	Y
6	IC 320-263888/7	4.82	3.288524	2.39	3690547.0	0.682266	Y
7	IC 320-263888/8	9.64	6.49347	2.39	3420592.0	0.673597	Y



Calibration

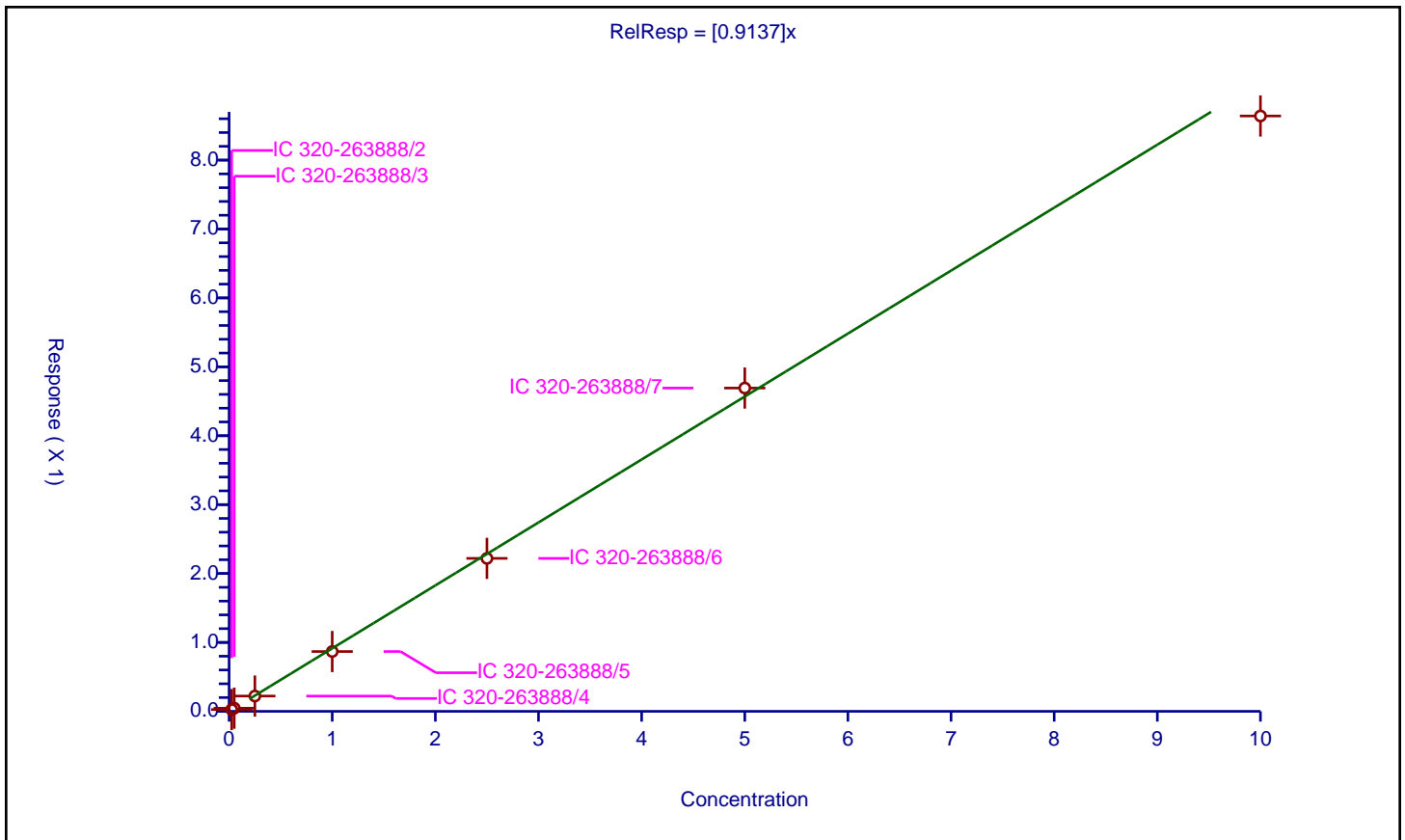
/ Perfluoroundecanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9137

Error Coefficients	
Standard Error:	4630000
Relative Standard Error:	6.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.025909	2.5	2804546.0	1.036353	Y
2	IC 320-263888/3	0.05	0.045698	2.5	2924195.0	0.913961	Y
3	IC 320-263888/4	0.25	0.221832	2.5	2908878.0	0.887328	Y
4	IC 320-263888/5	1.0	0.868094	2.5	2905371.0	0.868094	Y
5	IC 320-263888/6	2.5	2.219911	2.5	2815537.0	0.887965	Y
6	IC 320-263888/7	5.0	4.691781	2.5	2830496.0	0.938356	Y
7	IC 320-263888/8	10.0	8.640582	2.5	2787447.0	0.864058	Y



Calibration

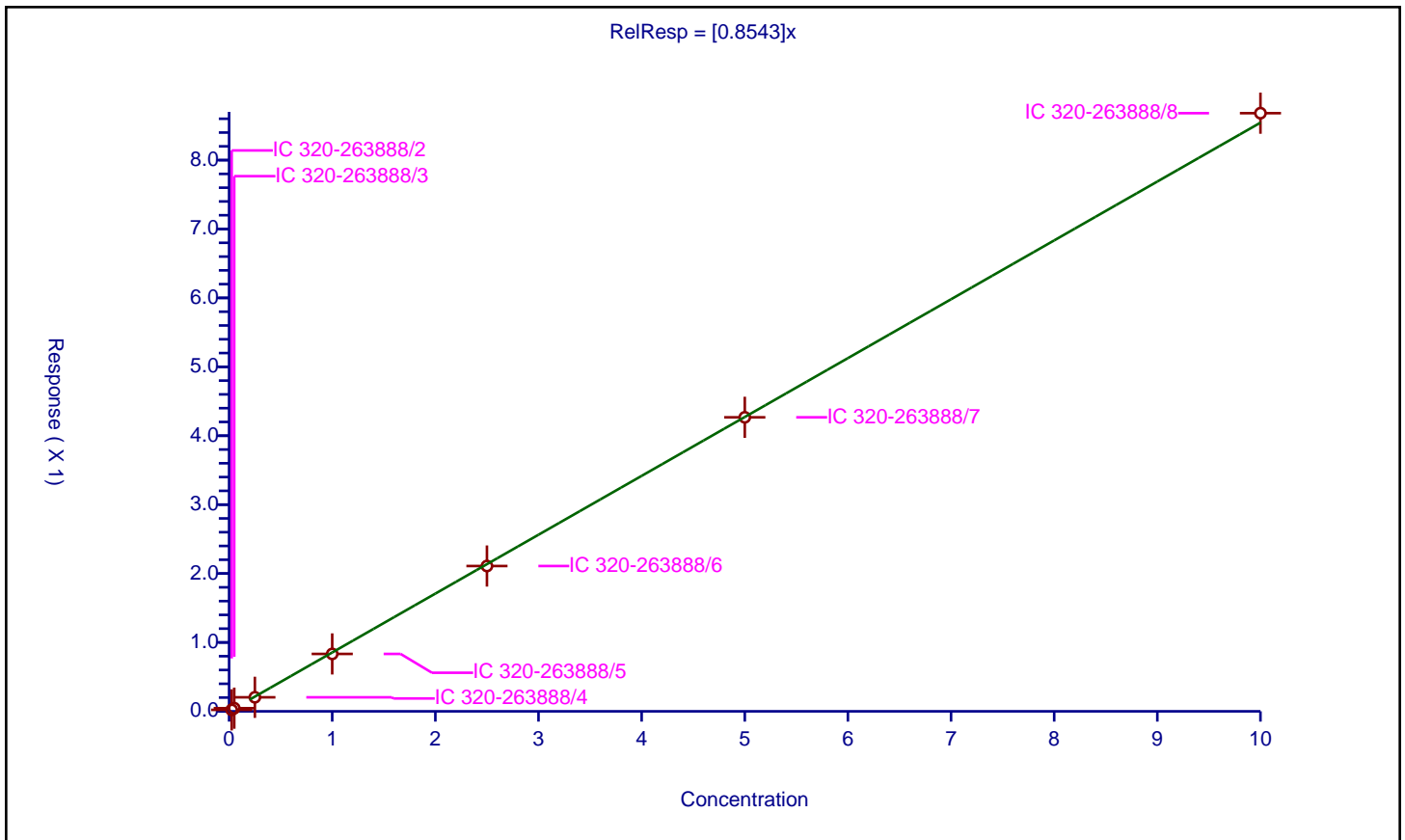
/ N-ethylperfluorooctanesulfonamidoacetic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8543

Error Coefficients	
Standard Error:	3110000
Relative Standard Error:	3.6
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.021425	2.5	1973935.0	0.857019	Y
2	IC 320-263888/3	0.05	0.045552	2.5	2007117.0	0.911033	Y
3	IC 320-263888/4	0.25	0.203467	2.5	2033921.0	0.813866	Y
4	IC 320-263888/5	1.0	0.833405	2.5	2061954.0	0.833405	Y
5	IC 320-263888/6	2.5	2.108964	2.5	2045443.0	0.843585	Y
6	IC 320-263888/7	5.0	4.267129	2.5	2018360.0	0.853426	Y
7	IC 320-263888/8	10.0	8.681045	2.5	1882597.0	0.868105	Y



Calibration

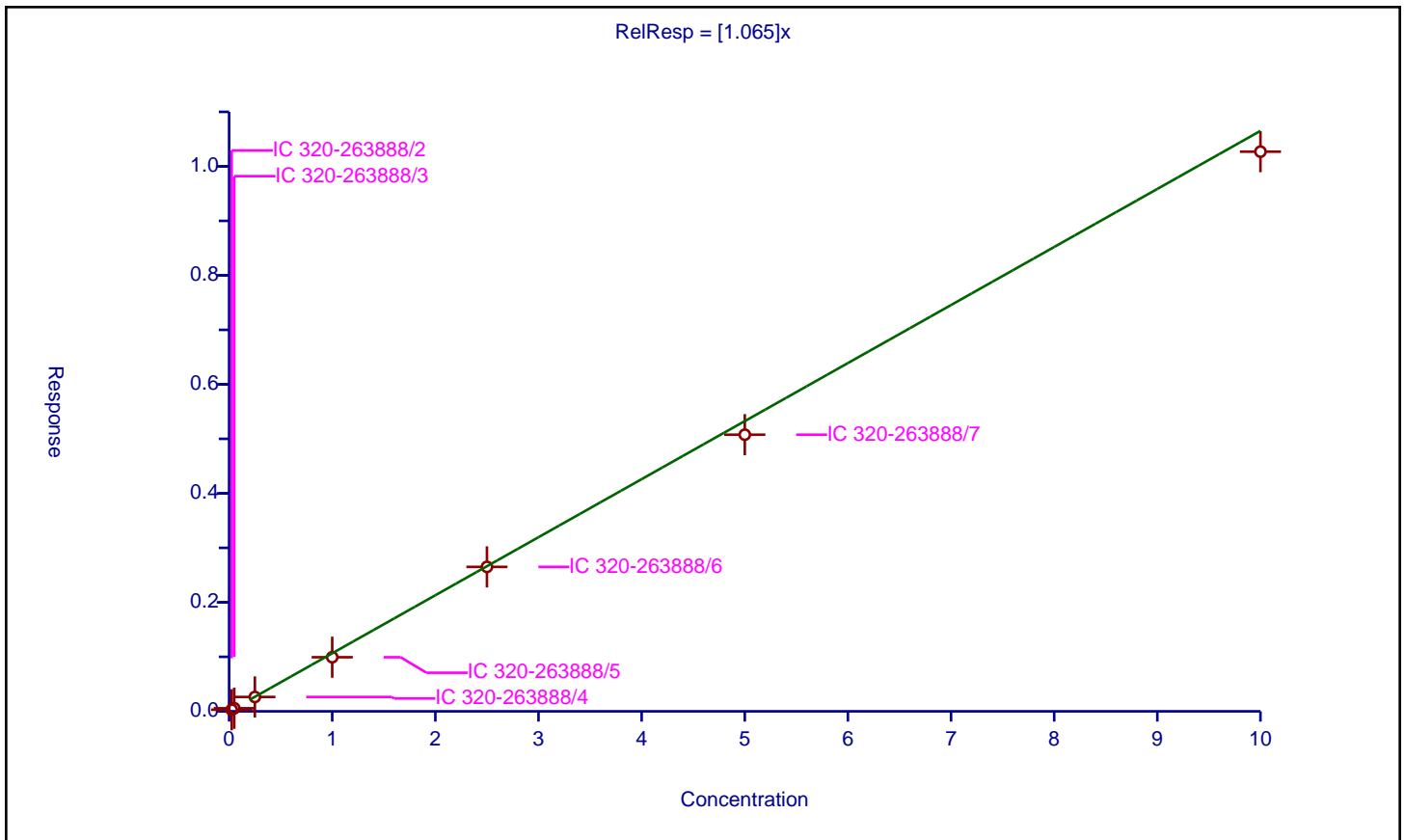
/ Perfluorododecanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.065

Error Coefficients	
Standard Error:	5610000
Relative Standard Error:	6.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.029502	2.5	2911099.0	1.18007	Y
2	IC 320-263888/3	0.05	0.056342	2.5	2921731.0	1.126832	Y
3	IC 320-263888/4	0.25	0.263375	2.5	3009330.0	1.0535	Y
4	IC 320-263888/5	1.0	0.992841	2.5	2986227.0	0.992841	Y
5	IC 320-263888/6	2.5	2.650553	2.5	2935236.0	1.060221	Y
6	IC 320-263888/7	5.0	5.076265	2.5	2902486.0	1.015253	Y
7	IC 320-263888/8	10.0	10.270158	2.5	2908000.0	1.027016	Y



Calibration

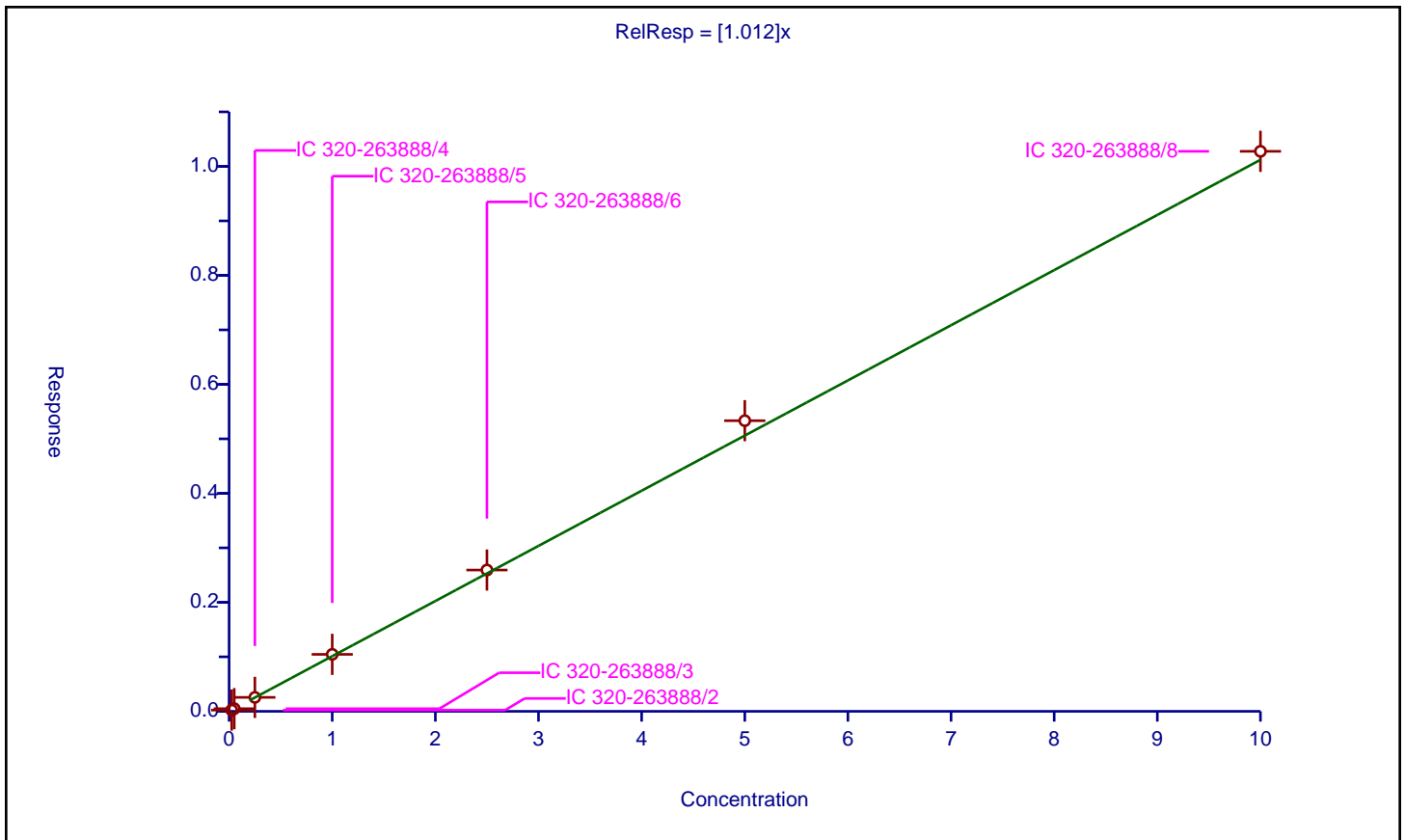
/ Perfluorotridecanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.012

Error Coefficients	
Standard Error:	5660000
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.022694	2.5	2911099.0	0.907767	Y
2	IC 320-263888/3	0.05	0.048816	2.5	2921731.0	0.976322	Y
3	IC 320-263888/4	0.25	0.255883	2.5	3009330.0	1.02353	Y
4	IC 320-263888/5	1.0	1.045466	2.5	2986227.0	1.045466	Y
5	IC 320-263888/6	2.5	2.592878	2.5	2935236.0	1.037151	Y
6	IC 320-263888/7	5.0	5.333226	2.5	2902486.0	1.066645	Y
7	IC 320-263888/8	10.0	10.276506	2.5	2908000.0	1.027651	Y



Calibration

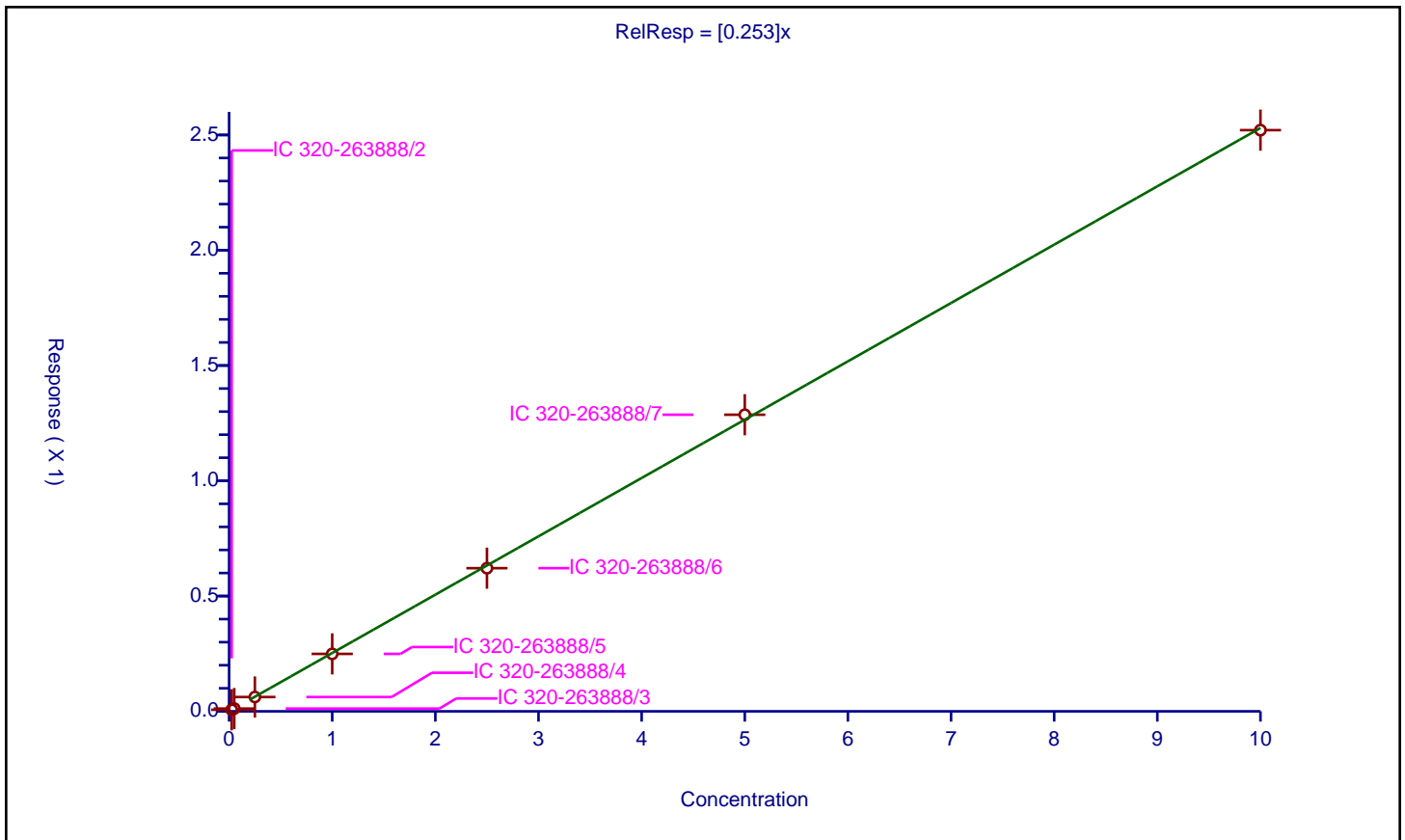
/ Perfluorotetradecanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.253

Error Coefficients	
Standard Error:	1580000
Relative Standard Error:	4.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263888/2	0.025	0.006892	2.5	3308673.0	0.275669	Y
2	IC 320-263888/3	0.05	0.012011	2.5	3462400.0	0.240224	Y
3	IC 320-263888/4	0.25	0.062075	2.5	3467600.0	0.248301	Y
4	IC 320-263888/5	1.0	0.24916	2.5	3427528.0	0.24916	Y
5	IC 320-263888/6	2.5	0.620937	2.5	3463798.0	0.248375	Y
6	IC 320-263888/7	5.0	1.286463	2.5	3505989.0	0.257293	Y
7	IC 320-263888/8	10.0	2.520828	2.5	3275425.0	0.252083	Y



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: ICV 320-263888/10 Calibration Date: 12/08/2018 06:16
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.07ICAL_013.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9132	0.9513		2.60	2.50	4.2	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.095	1.096		2.50	2.50	0.0	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9874	0.9814		2.20	2.21	-0.6	30.0
4:2 FTS	AveID	0.1892	0.1963		2.42	2.34	3.7	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.012	0.9574		2.36	2.50	-5.4	30.0
Perfluoropentanesulfonic acid	AveID	0.8643	0.8939		2.43	2.35	3.4	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.129	1.078		2.39	2.50	-4.5	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.062	1.052		2.26	2.28	-1.0	30.0
6:2 FTS	AveID	1.556	1.583		2.42	2.38	1.7	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.286	1.346		2.49	2.38	4.7	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.123	1.149		2.56	2.50	2.3	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.121	1.083		2.24	2.31	-3.4	30.0
Perfluorononanoic acid (PFNA)	AveID	1.053	1.042		2.47	2.50	-1.0	30.0
Perfluorononanesulfonic acid	AveID	0.7820	0.8148		2.50	2.40	4.2	30.0
8:2 FTS	AveID	1.308	1.316		2.42	2.40	0.6	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9686	0.9669		2.50	2.50	-0.2	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	0.9375	0.9815		2.62	2.50	4.7	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9247	1.043		2.82	2.50	12.8	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6393	0.6504		2.45	2.41	1.7	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9137	0.8805		2.41	2.50	-3.6	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8543	0.9298		2.72	2.50	8.8	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.065	1.116		2.62	2.50	4.8	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.012	1.122		2.77	2.50	10.9	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2530	0.2545		2.51	2.50	0.6	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9150		2.59	2.50	3.5	30.0
13C4 PFBA	Ave	1.505	1.461		2.43	2.50	-2.9	30.0
13C5 PFPeA	Ave	0.9872	0.9649		2.44	2.50	-2.3	30.0
13C3 PFBS	Ave	1.529	1.489		2.26	2.33	-2.6	30.0
13C2 PFHxA	Ave	1.031	1.031		2.50	2.50	-0.0	30.0
13C4 PFHpA	Ave	0.9896	1.014		2.56	2.50	2.5	30.0
1802 PFHxS	Ave	1.192	1.145		2.27	2.37	-3.9	30.0
M2-6:2 FTS	Ave	0.1789	0.1816		2.41	2.38	1.5	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: ICV 320-263888/10 Calibration Date: 12/08/2018 06:16
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.07ICAL_013.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9852	0.9569		2.43	2.50	-2.9	30.0
13C4 PFOS	Ave	0.7858	0.7801		2.37	2.39	-0.7	30.0
13C5 PFNA	Ave	0.8198	0.7986		2.44	2.50	-2.6	30.0
13C2 PFDA	Ave	0.7365	0.7324		2.49	2.50	-0.6	30.0
M2-8:2 FTS	Ave	0.1946	0.1977		2.43	2.40	1.6	30.0
13C8 FOSA	Ave	1.170	1.130		2.41	2.50	-3.5	30.0
d3-NMeFOSAA	Ave	0.3898	0.3920		2.51	2.50	0.6	30.0
13C2 PFUnA	Ave	0.5834	0.5699		2.44	2.50	-2.3	30.0
d5-NEtFOSAA	Ave	0.4094	0.4076		2.49	2.50	-0.4	30.0
13C2 PFDoA	Ave	0.6009	0.5760		2.40	2.50	-4.2	30.0
13C2 PFTeDA	Ave	0.6981	0.6755		2.42	2.50	-3.2	30.0
13C2 PFHxDA	Ave	1.226	1.222		2.49	2.50	-0.3	30.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Instrument ID: A8_N Start Date: 12/12/2018 09:19

Analysis Batch Number: 264730 End Date: 12/12/2018 09:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 320-264730/1		12/12/2018 09:19	1	2018.12.12LLA_004.d	GeminiC18 3x100 3(mm)
CCVL 320-264730/2		12/12/2018 09:27	1	2018.12.12LLA_005.d	GeminiC18 3x100 3(mm)
CCV 320-264730/3 CCVIS		12/12/2018 09:34	1	2018.12.12LLA_006.d	GeminiC18 3x100 3(mm)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCVL 320-264730/2 Calibration Date: 12/12/2018 09:27
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.12LLA_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9132	0.7949		0.0435	0.0500	-13.0	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.095	1.102		0.0503	0.0500	0.6	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9874	0.9921		0.0444	0.0442	0.5	30.0
4:2 FTS	AveID	0.1892	0.1832		0.452	0.467	-3.2	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.012	0.9598		0.0474	0.0500	-5.2	30.0
Perfluoropentanesulfonic acid	AveID	0.8643	0.8626		0.0468	0.0469	-0.2	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.129	1.010		0.0447	0.0500	-10.5	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.062	1.142		0.0489	0.0455	7.6	30.0
6:2 FTS	AveID	1.556	1.587		0.484	0.474	2.0	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.286	1.244		0.0460	0.0476	-3.3	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.123	1.135		0.0506	0.0501	1.1	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.121	1.075		0.0445	0.0464	-4.1	30.0
Perfluorononanoic acid (PFNA)	AveID	1.053	1.023		0.0486	0.0500	-2.8	30.0
Perfluorononanesulfonic acid	AveID	0.7820	0.7850		0.0482	0.0480	0.4	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	0.9375	0.9279		0.0495	0.0500	-1.0	30.0
8:2 FTS	AveID	1.308	1.462		0.536	0.479	11.8	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9686	0.9220		0.0476	0.0500	-4.8	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9247	0.9327		0.504	0.500	0.9	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6393	0.6042		0.0456	0.0482	-5.5	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9137	0.8842		0.0484	0.0500	-3.2	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8543	0.8832		0.517	0.500	3.4	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.065	1.028		0.0482	0.0500	-3.5	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.012	0.9542		0.0471	0.0500	-5.7	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2530	0.2329		0.0460	0.0500	-7.9	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.293		0.0503	0.0500	0.5	30.0
13C4 PFBA	Ave	1.505	1.577		2.62	2.50	4.8	30.0
13C5 PFPeA	Ave	0.9872	0.9845		2.49	2.50	-0.3	30.0
13C3 PFBS	Ave	1.529	1.522		2.32	2.33	-0.4	30.0
13C2 PFHxA	Ave	1.031	1.107		2.68	2.50	7.4	30.0
13C4 PFHpA	Ave	0.9896	1.062		2.68	2.50	7.3	30.0
18O2 PFHxS	Ave	1.192	1.259		2.50	2.37	5.7	30.0
M2-6:2 FTS	Ave	0.1789	0.1873		2.49	2.38	4.7	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCVL 320-264730/2 Calibration Date: 12/12/2018 09:27
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.12LLA_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9852	0.999		2.54	2.50	1.4	30.0
13C4 PFOS	Ave	0.7858	0.8306		2.53	2.39	5.7	30.0
13C5 PFNA	Ave	0.8198	0.8193		2.50	2.50	-0.0	30.0
13C8 FOSA	Ave	1.170	1.189		2.54	2.50	1.6	30.0
13C2 PFDA	Ave	0.7365	0.7417		2.52	2.50	0.7	30.0
M2-8:2 FTS	Ave	0.1946	0.1857		2.29	2.40	-4.5	30.0
d3-NMeFOSAA	Ave	0.3898	0.3764		2.41	2.50	-3.4	30.0
13C2 PFUnA	Ave	0.5834	0.6186		2.65	2.50	6.0	30.0
d5-NEtFOSAA	Ave	0.4094	0.4065		2.48	2.50	-0.7	30.0
13C2 PFDoA	Ave	0.6009	0.6409		2.67	2.50	6.7	30.0
13C2 PFTeDA	Ave	0.6981	0.7740		2.77	2.50	10.9	30.0
13C2 PFHxDA	Ave	1.226	1.348		2.75	2.50	9.9	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-264730/3 Calibration Date: 12/12/2018 09:34
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.12LLA_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9132	0.9413		1.03	1.00	3.1	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.095	1.048		0.957	1.00	-4.3	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9874	1.006		0.901	0.884	1.9	30.0
4:2 FTS	AveID	0.1892	0.1749		0.863	0.934	-7.6	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.012	1.035		1.02	1.00	2.3	30.0
Perfluoropentanesulfonic acid	AveID	0.8643	0.9379		1.02	0.938	8.5	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.129	1.076		0.953	1.00	-4.7	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.062	1.015		0.870	0.910	-4.4	30.0
6:2 FTS	AveID	1.556	1.539		0.938	0.948	-1.1	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.286	1.238		0.917	0.952	-3.7	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.123	1.067		0.951	1.00	-5.0	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.121	1.059		0.877	0.928	-5.5	30.0
Perfluorononanoic acid (PFNA)	AveID	1.053	1.042		0.990	1.00	-1.0	30.0
Perfluorononanesulfonic acid	AveID	0.7820	0.7452		0.915	0.960	-4.7	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	0.9375	1.001		1.07	1.00	6.8	30.0
8:2 FTS	AveID	1.308	1.300		0.952	0.958	-0.6	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9686	0.9920		1.02	1.00	2.4	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9247	0.9018		0.975	1.00	-2.5	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6393	0.6139		0.926	0.964	-4.0	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9137	0.9298		1.02	1.00	1.8	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8543	0.8596		1.01	1.00	0.6	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.065	1.066		1.00	1.00	0.0	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.012	1.025		1.01	1.00	1.3	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2530	0.2386		0.943	1.00	-5.7	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9233		1.03	1.00	3.1	30.0
13C4 PFBA	Ave	1.505	1.560		2.59	2.50	3.7	30.0
13C5 PFPeA	Ave	0.9872	0.9889		2.50	2.50	0.2	30.0
13C3 PFBS	Ave	1.529	1.517		2.31	2.33	-0.8	30.0
13C2 PFHxA	Ave	1.031	1.006		2.44	2.50	-2.4	30.0
13C4 PFHpA	Ave	0.9896	1.007		2.54	2.50	1.8	30.0
18O2 PFHxS	Ave	1.192	1.207		2.40	2.37	1.3	30.0
M2-6:2 FTS	Ave	0.1789	0.1720		2.28	2.38	-3.9	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-264730/3 Calibration Date: 12/12/2018 09:34
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.12LLA_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9852	1.001		2.54	2.50	1.6	30.0
13C4 PFOS	Ave	0.7858	0.8163		2.48	2.39	3.9	30.0
13C5 PFNA	Ave	0.8198	0.8402		2.56	2.50	2.5	30.0
13C8 FOSA	Ave	1.170	1.118		2.39	2.50	-4.5	30.0
13C2 PFDA	Ave	0.7365	0.7268		2.47	2.50	-1.3	30.0
M2-8:2 FTS	Ave	0.1946	0.1930		2.38	2.40	-0.8	30.0
d3-NMeFOSAA	Ave	0.3898	0.3888		2.49	2.50	-0.3	30.0
13C2 PFUnA	Ave	0.5834	0.5819		2.49	2.50	-0.3	30.0
d5-NEtFOSAA	Ave	0.4094	0.3825		2.34	2.50	-6.6	30.0
13C2 PFDoA	Ave	0.6009	0.6306		2.62	2.50	4.9	30.0
13C2 PFTeDA	Ave	0.6981	0.7440		2.66	2.50	6.6	30.0
13C2 PFHxDA	Ave	1.226	1.240		2.53	2.50	1.1	30.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Instrument ID: A8_N Start Date: 12/12/2018 10:57

Analysis Batch Number: 264745 End Date: 12/12/2018 12:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-264745/1		12/12/2018 10:57	1	2018.12.12LLA_0 17.d	GeminiC18 3x100 3(mm)
ZZZZZ		12/12/2018 11:04	1		GeminiC18 3x100 3(mm)
ZZZZZ		12/12/2018 11:12	1		GeminiC18 3x100 3(mm)
ZZZZZ		12/12/2018 11:19	1		GeminiC18 3x100 3(mm)
320-44773-1 DL		12/12/2018 11:27	10	2018.12.12LLA_0 21.d	GeminiC18 3x100 3(mm)
ZZZZZ		12/12/2018 11:34	2		GeminiC18 3x100 3(mm)
320-44773-8 DL		12/12/2018 11:42	2	2018.12.12LLA_0 23.d	GeminiC18 3x100 3(mm)
320-44773-9 DL		12/12/2018 11:49	10	2018.12.12LLA_0 24.d	GeminiC18 3x100 3(mm)
320-44773-10 DL		12/12/2018 11:57	20	2018.12.12LLA_0 25.d	GeminiC18 3x100 3(mm)
CCV 320-264745/10		12/12/2018 12:04	1	2018.12.12LLA_0 26.d	GeminiC18 3x100 3(mm)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-264745/1 Calibration Date: 12/12/2018 10:57
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.12LLA_017.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9132	0.9271		2.54	2.50	1.5	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.095	1.072		2.45	2.50	-2.2	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9874	0.9784		2.19	2.21	-0.9	30.0
4:2 FTS	AveID	0.1892	0.1725		2.13	2.34	-8.8	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.012	1.001		2.47	2.50	-1.1	30.0
Perfluoropentanesulfonic acid	AveID	0.8643	0.9296		2.52	2.35	7.6	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.129	1.098		2.43	2.50	-2.7	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.062	1.019		2.18	2.28	-4.1	30.0
6:2 FTS	AveID	1.556	1.586		2.42	2.37	2.0	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.286	1.388		2.57	2.38	8.0	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.123	1.109		2.47	2.50	-1.3	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.121	1.138		2.36	2.32	1.6	30.0
Perfluorononanoic acid (PFNA)	AveID	1.053	1.072		2.55	2.50	1.8	30.0
Perfluorononanesulfonic acid	AveID	0.7820	0.8530		2.62	2.40	9.1	30.0
8:2 FTS	AveID	1.308	1.295		2.37	2.40	-1.0	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9686	1.004		2.59	2.50	3.7	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	0.9375	1.011		2.70	2.50	7.9	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9247	0.9540		2.58	2.50	3.2	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6393	0.6423		2.42	2.41	0.5	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9137	0.8806		2.41	2.50	-3.6	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8543	0.8332		2.44	2.50	-2.5	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.065	1.098		2.58	2.50	3.1	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.012	1.012		2.50	2.50	0.0	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2530	0.2574		2.54	2.50	1.7	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8952		2.53	2.50	1.3	30.0
13C4 PFBA	Ave	1.505	1.584		2.63	2.50	5.3	30.0
13C5 PFPeA	Ave	0.9872	0.9772		2.47	2.50	-1.0	30.0
13C3 PFBS	Ave	1.529	1.508		2.29	2.33	-1.3	30.0
13C2 PFHxA	Ave	1.031	1.033		2.50	2.50	0.1	30.0
13C4 PFHpA	Ave	0.9896	0.9780		2.47	2.50	-1.2	30.0
18O2 PFHxS	Ave	1.192	1.213		2.41	2.37	1.7	30.0
M2-6:2 FTS	Ave	0.1789	0.1768		2.35	2.38	-1.1	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-264745/1 Calibration Date: 12/12/2018 10:57
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.12LLA_017.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9852	0.9690		2.46	2.50	-1.6	30.0
13C4 PFOS	Ave	0.7858	0.7594		2.31	2.39	-3.4	30.0
13C5 PFNA	Ave	0.8198	0.8142		2.48	2.50	-0.7	30.0
13C2 PFDA	Ave	0.7365	0.7466		2.53	2.50	1.4	30.0
13C8 FOSA	Ave	1.170	1.134		2.42	2.50	-3.1	30.0
M2-8:2 FTS	Ave	0.1946	0.1885		2.32	2.40	-3.1	30.0
d3-NMeFOSAA	Ave	0.3898	0.3718		2.38	2.50	-4.6	30.0
13C2 PFUnA	Ave	0.5834	0.6156		2.64	2.50	5.5	30.0
d5-NEtFOSAA	Ave	0.4094	0.3972		2.43	2.50	-3.0	30.0
13C2 PFDoA	Ave	0.6009	0.6180		2.57	2.50	2.8	30.0
13C2 PFTeDA	Ave	0.6981	0.7168		2.57	2.50	2.7	30.0
13C2 PFHxDA	Ave	1.226	1.357		2.77	2.50	10.7	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-264745/10 Calibration Date: 12/12/2018 12:04
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.12LLA_026.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9132	0.9175		1.00	1.00	0.5	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.095	1.023		0.934	1.00	-6.6	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9874	1.020		0.913	0.884	3.3	30.0
4:2 FTS	AveID	0.1892	0.1765		0.871	0.934	-6.7	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.012	0.9533		0.942	1.00	-5.8	30.0
Perfluoropentanesulfonic acid	AveID	0.8643	0.9096		0.987	0.938	5.2	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.129	1.096		0.971	1.00	-2.9	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.062	1.015		0.870	0.910	-4.4	30.0
6:2 FTS	AveID	1.556	1.586		0.967	0.948	2.0	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.286	1.251		0.926	0.952	-2.7	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.123	1.102		0.982	1.00	-1.9	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.121	1.121		0.928	0.928	0.0	30.0
Perfluorononanoic acid (PFNA)	AveID	1.053	0.9903		0.941	1.00	-5.9	30.0
Perfluorononanesulfonic acid	AveID	0.7820	0.8286		1.02	0.960	6.0	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	0.9375	0.9311		0.993	1.00	-0.7	30.0
8:2 FTS	AveID	1.308	1.302		0.954	0.958	-0.5	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9686	1.016		1.05	1.00	4.9	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9247	0.9469		1.02	1.00	2.4	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6393	0.6570		0.991	0.964	2.8	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9137	0.8888		0.973	1.00	-2.7	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8543	0.8030		0.940	1.00	-6.0	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.065	1.119		1.05	1.00	5.1	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.012	1.041		1.03	1.00	2.9	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2530	0.2471		0.977	1.00	-2.3	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8998		1.00	1.00	0.4	30.0
13C4 PFBA	Ave	1.505	1.584		2.63	2.50	5.3	30.0
13C5 PFPeA	Ave	0.9872	0.9793		2.48	2.50	-0.8	30.0
13C3 PFBS	Ave	1.529	1.523		2.32	2.33	-0.4	30.0
13C2 PFHxA	Ave	1.031	1.051		2.55	2.50	1.9	30.0
13C4 PFHpA	Ave	0.9896	0.9874		2.49	2.50	-0.2	30.0
18O2 PFHxS	Ave	1.192	1.200		2.38	2.37	0.7	30.0
M2-6:2 FTS	Ave	0.1789	0.1810		2.40	2.38	1.2	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-264745/10 Calibration Date: 12/12/2018 12:04
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.12LLA_026.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9852	0.9819		2.49	2.50	-0.3	30.0
13C4 PFOS	Ave	0.7858	0.7993		2.43	2.39	1.7	30.0
13C5 PFNA	Ave	0.8198	0.8336		2.54	2.50	1.7	30.0
13C8 FOSA	Ave	1.170	1.197		2.56	2.50	2.3	30.0
13C2 PFDA	Ave	0.7365	0.7359		2.50	2.50	-0.0	30.0
M2-8:2 FTS	Ave	0.1946	0.1919		2.36	2.40	-1.4	30.0
d3-NMeFOSAA	Ave	0.3898	0.3717		2.38	2.50	-4.6	30.0
13C2 PFUnA	Ave	0.5834	0.5918		2.54	2.50	1.4	30.0
d5-NEtFOSAA	Ave	0.4094	0.3978		2.43	2.50	-2.8	30.0
13C2 PFDoA	Ave	0.6009	0.6082		2.53	2.50	1.2	30.0
13C2 PFTeDA	Ave	0.6981	0.7375		2.64	2.50	5.6	30.0
13C2 PFHxDA	Ave	1.226	1.287		2.62	2.50	4.9	30.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Instrument ID: A8_N Start Date: 12/14/2018 20:54

Analysis Batch Number: 265418 End Date: 12/14/2018 21:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 320-265418/1		12/14/2018 20:54	1	2018.12.14LLB_04.d	GeminiC18 3x100 3(mm)
CCVL 320-265418/2		12/14/2018 21:02	1	2018.12.14LLB_05.d	GeminiC18 3x100 3(mm)
CCV 320-265418/3 CCVIS		12/14/2018 21:09	1	2018.12.14LLB_06.d	GeminiC18 3x100 3(mm)
320-44773-7 DL		12/14/2018 21:17	5	2018.12.14LLB_07.d	GeminiC18 3x100 3(mm)
CCV 320-265418/5		12/14/2018 21:24	1	2018.12.14LLB_08.d	GeminiC18 3x100 3(mm)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCVL 320-265418/2 Calibration Date: 12/14/2018 21:02
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.14LLB_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9132	0.8234		0.0451	0.0500	-9.8	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.095	1.072		0.0489	0.0500	-2.1	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9874	0.9028		0.0404	0.0442	-8.6	30.0
4:2 FTS	AveID	0.1892	0.2086		0.515	0.467	10.3	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.012	1.027		0.0507	0.0500	1.4	30.0
Perfluoropentanesulfonic acid	AveID	0.8643	0.8705		0.0472	0.0469	0.7	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.129	1.036		0.0459	0.0500	-8.2	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.062	1.218		0.0522	0.0455	14.6	30.0
6:2 FTS	AveID	1.556	1.625		0.495	0.474	4.4	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.286	1.297		0.0480	0.0476	0.9	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.123	1.166		0.0520	0.0501	3.8	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.121	1.053		0.0436	0.0464	-6.0	30.0
Perfluorononanoic acid (PFNA)	AveID	1.053	1.052		0.0500	0.0500	-0.0	30.0
Perfluorononanesulfonic acid	AveID	0.7820	0.7530		0.0462	0.0480	-3.7	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	0.9375	0.9235		0.0493	0.0500	-1.5	30.0
8:2 FTS	AveID	1.308	1.322		0.484	0.479	1.1	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9686	0.9428		0.0487	0.0500	-2.7	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9247	0.9483		0.513	0.500	2.6	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6393	0.5897		0.0445	0.0482	-7.8	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9137	0.9509		0.0520	0.0500	4.1	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8543	0.8339		0.488	0.500	-2.4	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.065	1.099		0.0516	0.0500	3.2	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.012	0.9519		0.0470	0.0500	-5.9	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2530	0.2778		0.0549	0.0500	9.8	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.274		0.0492	0.0500	-1.6	30.0
13C4 PFBA	Ave	1.505	1.529		2.54	2.50	1.6	30.0
13C5 PFPeA	Ave	0.9872	0.9857		2.50	2.50	-0.1	30.0
13C3 PFBS	Ave	1.529	1.503		2.29	2.33	-1.7	30.0
13C2 PFHxA	Ave	1.031	1.064		2.58	2.50	3.2	30.0
13C4 PFHpA	Ave	0.9896	1.037		2.62	2.50	4.8	30.0
18O2 PFHxS	Ave	1.192	1.194		2.37	2.37	0.1	30.0
M2-6:2 FTS	Ave	0.1789	0.1915		2.54	2.38	7.0	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCVL 320-265418/2 Calibration Date: 12/14/2018 21:02
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.14LLB_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9852	1.020		2.59	2.50	3.5	30.0
13C4 PFOS	Ave	0.7858	0.7682		2.34	2.39	-2.2	30.0
13C5 PFNA	Ave	0.8198	0.8085		2.47	2.50	-1.4	30.0
13C8 FOSA	Ave	1.170	1.109		2.37	2.50	-5.2	30.0
13C2 PFDA	Ave	0.7365	0.7460		2.53	2.50	1.3	30.0
M2-8:2 FTS	Ave	0.1946	0.2084		2.56	2.40	7.1	30.0
d3-NMeFOSAA	Ave	0.3898	0.3911		2.51	2.50	0.3	30.0
13C2 PFUnA	Ave	0.5834	0.6308		2.70	2.50	8.1	30.0
d5-NEtFOSAA	Ave	0.4094	0.3984		2.43	2.50	-2.7	30.0
13C2 PFDoA	Ave	0.6009	0.6444		2.68	2.50	7.2	30.0
13C2 PFTeDA	Ave	0.6981	0.7585		2.72	2.50	8.7	30.0
13C2 PFHxDA	Ave	1.226	1.353		2.76	2.50	10.4	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265418/3 Calibration Date: 12/14/2018 21:09
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.14LLB_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9132	0.8605		0.942	1.00	-5.8	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.095	0.999		0.912	1.00	-8.8	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9874	0.9746		0.873	0.884	-1.3	30.0
4:2 FTS	AveID	0.1892	0.1896		0.936	0.934	0.2	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.012	0.8596		0.849	1.00	-15.1	30.0
Perfluoropentanesulfonic acid	AveID	0.8643	0.8522		0.925	0.938	-1.4	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.129	0.9578		0.849	1.00	-15.1	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.062	0.9825		0.842	0.910	-7.5	30.0
6:2 FTS	AveID	1.556	1.497		0.912	0.948	-3.8	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.286	1.244		0.921	0.952	-3.3	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.123	0.9733		0.866	1.00	-13.4	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.121	1.027		0.850	0.928	-8.4	30.0
Perfluorononanoic acid (PFNA)	AveID	1.053	0.9939		0.944	1.00	-5.6	30.0
Perfluorononanesulfonic acid	AveID	0.7820	0.7772		0.954	0.960	-0.6	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	0.9375	0.9587		1.02	1.00	2.3	30.0
8:2 FTS	AveID	1.308	1.183		0.867	0.958	-9.5	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9686	0.9164		0.946	1.00	-5.4	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9247	0.8931		0.966	1.00	-3.4	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6393	0.6155		0.928	0.964	-3.7	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9137	0.7555		0.827	1.00	-17.3	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8543	0.8366		0.979	1.00	-2.1	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.065	0.9687		0.910	1.00	-9.0	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.012	0.9943		0.982	1.00	-1.8	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2530	0.2254		0.891	1.00	-10.9	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9073		1.01	1.00	1.3	30.0
13C4 PFBA	Ave	1.505	1.503		2.50	2.50	-0.1	30.0
13C5 PFPeA	Ave	0.9872	0.9335		2.36	2.50	-5.4	30.0
13C3 PFBS	Ave	1.529	1.386		2.11	2.33	-9.4	30.0
13C2 PFHxA	Ave	1.031	1.039		2.52	2.50	0.8	30.0
13C4 PFHpA	Ave	0.9896	1.006		2.54	2.50	1.6	30.0
18O2 PFHxS	Ave	1.192	1.165		2.31	2.37	-2.3	30.0
M2-6:2 FTS	Ave	0.1789	0.1884		2.50	2.38	5.3	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265418/3 Calibration Date: 12/14/2018 21:09
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.14LLB_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9852	0.9933		2.52	2.50	0.8	30.0
13C4 PFOS	Ave	0.7858	0.7466		2.27	2.39	-5.0	30.0
13C5 PFNA	Ave	0.8198	0.8103		2.47	2.50	-1.2	30.0
13C8 FOSA	Ave	1.170	1.055		2.25	2.50	-9.9	30.0
13C2 PFDA	Ave	0.7365	0.7095		2.41	2.50	-3.7	30.0
M2-8:2 FTS	Ave	0.1946	0.1887		2.32	2.40	-3.0	30.0
d3-NMeFOSAA	Ave	0.3898	0.3672		2.35	2.50	-5.8	30.0
13C2 PFUnA	Ave	0.5834	0.6028		2.58	2.50	3.3	30.0
d5-NEtFOSAA	Ave	0.4094	0.3745		2.29	2.50	-8.5	30.0
13C2 PFDoA	Ave	0.6009	0.6076		2.53	2.50	1.1	30.0
13C2 PFTeDA	Ave	0.6981	0.7398		2.65	2.50	6.0	30.0
13C2 PFHxDA	Ave	1.226	1.310		2.67	2.50	6.8	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265418/5 Calibration Date: 12/14/2018 21:24
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.14LLB_008.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9132	0.8989		2.46	2.50	-1.6	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.095	1.019		2.33	2.50	-7.0	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.9874	0.9649		2.16	2.21	-2.3	30.0
4:2 FTS	AveID	0.1892	0.1969		2.43	2.34	4.1	30.0
Perfluorohexanoic acid (PFHxA)	AveID	1.012	0.8936		2.21	2.50	-11.7	30.0
Perfluoropentanesulfonic acid	AveID	0.8643	0.8447		2.29	2.35	-2.3	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.129	0.9846		2.18	2.50	-12.8	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.062	0.9848		2.11	2.28	-7.3	30.0
6:2 FTS	AveID	1.556	1.488		2.27	2.37	-4.3	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.286	1.269		2.35	2.38	-1.3	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.123	1.045		2.33	2.50	-7.0	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.121	1.034		2.14	2.32	-7.7	30.0
Perfluorononanoic acid (PFNA)	AveID	1.053	1.000		2.37	2.50	-5.0	30.0
Perfluorononanesulfonic acid	AveID	0.7820	0.7854		2.41	2.40	0.4	30.0
8:2 FTS	AveID	1.308	1.167		2.14	2.40	-10.8	30.0
Perfluorodecanoic acid (PFDA)	AveID	0.9686	0.9213		2.38	2.50	-4.9	30.0
Perfluorooctanesulfonamide (FOSA)	AveID	0.9375	0.9760		2.60	2.50	4.1	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9247	0.8816		2.38	2.50	-4.7	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6393	0.6597		2.49	2.41	3.2	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9137	0.8536		2.34	2.50	-6.6	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8543	0.7715		2.26	2.50	-9.7	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.065	0.9920		2.33	2.50	-6.9	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	1.012	0.9687		2.39	2.50	-4.3	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2530	0.2288		2.26	2.50	-9.6	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8696		2.46	2.50	-1.6	30.0
13C4 PFBA	Ave	1.505	1.580		2.63	2.50	5.0	30.0
13C5 PFPeA	Ave	0.9872	0.9821		2.49	2.50	-0.5	30.0
13C3 PFBS	Ave	1.529	1.482		2.25	2.33	-3.1	30.0
13C2 PFHxA	Ave	1.031	1.083		2.63	2.50	5.0	30.0
13C4 PFHpA	Ave	0.9896	1.012		2.56	2.50	2.2	30.0
18O2 PFHxS	Ave	1.192	1.144		2.27	2.37	-4.0	30.0
M2-6:2 FTS	Ave	0.1789	0.1863		2.47	2.38	4.1	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265418/5 Calibration Date: 12/14/2018 21:24
 Instrument ID: A8_N Calib Start Date: 12/08/2018 05:16
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 12/08/2018 06:01
 Lab File ID: 2018.12.14LLB_008.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9852	1.001		2.54	2.50	1.6	30.0
13C4 PFOS	Ave	0.7858	0.7716		2.35	2.39	-1.8	30.0
13C5 PFNA	Ave	0.8198	0.8296		2.53	2.50	1.2	30.0
13C8 FOSA	Ave	1.170	1.098		2.35	2.50	-6.2	30.0
13C2 PFDA	Ave	0.7365	0.7390		2.51	2.50	0.3	30.0
M2-8:2 FTS	Ave	0.1946	0.1959		2.41	2.40	0.7	30.0
d3-NMeFOSAA	Ave	0.3898	0.3848		2.47	2.50	-1.3	30.0
13C2 PFUnA	Ave	0.5834	0.6223		2.67	2.50	6.7	30.0
d5-NEtFOSAA	Ave	0.4094	0.4151		2.54	2.50	1.4	30.0
13C2 PFDoA	Ave	0.6009	0.6399		2.66	2.50	6.5	30.0
13C2 PFTeDA	Ave	0.6981	0.7690		2.75	2.50	10.2	30.0
13C2 PFHxDA	Ave	1.226	1.411		2.88	2.50	15.0	30.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Instrument ID: A9 Start Date: 12/07/2018 03:11Analysis Batch Number: 263574 End Date: 12/07/2018 04:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 320-263574/2		12/07/2018 03:11	1	2018.12.06ICALB002.d	Acquity 2.1(mm)
IC 320-263574/3		12/07/2018 03:18	1	2018.12.06ICALB003.d	Acquity 2.1(mm)
IC 320-263574/4		12/07/2018 03:26	1	2018.12.06ICALB004.d	Acquity 2.1(mm)
IC 320-263574/5 ICIS		12/07/2018 03:33	1	2018.12.06ICALB005.d	Acquity 2.1(mm)
IC 320-263574/6		12/07/2018 03:41	1	2018.12.06ICALB006.d	Acquity 2.1(mm)
IC 320-263574/7		12/07/2018 03:48	1	2018.12.06ICALB007.d	Acquity 2.1(mm)
IC 320-263574/8		12/07/2018 03:55	1	2018.12.06ICALB008.d	Acquity 2.1(mm)
ICB 320-263574/9		12/07/2018 04:03	1	2018.12.06ICALB009.d	Acquity 2.1(mm)
ICV 320-263574/10		12/07/2018 04:11	1	2018.12.06ICALB010.d	Acquity 2.1(mm)

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 263574

SDG No.: _____

Instrument ID: A9 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/07/2018 03:11 Calibration End Date: 12/07/2018 03:55 Calibration ID: 42635

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-263574/2	2018.12.06ICALB_002.d
Level 2	IC 320-263574/3	2018.12.06ICALB_003.d
Level 3	IC 320-263574/4	2018.12.06ICALB_004.d
Level 4	IC 320-263574/5	2018.12.06ICALB_005.d
Level 5	IC 320-263574/6	2018.12.06ICALB_006.d
Level 6	IC 320-263574/7	2018.12.06ICALB_007.d
Level 7	IC 320-263574/8	2018.12.06ICALB_008.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Perfluorobutanoic acid (PFBA)	1.0606 0.9162	1.0241 0.8494	0.9850	0.9719	0.9803	AveID		0.9696			7.2		20.0				
Perfluoropentanoic acid (PFPeA)	1.2257 0.9479	1.1251 0.8796	1.0616	1.0220	1.0392	AveID		1.0430			10.8		20.0				
Perfluorobutanesulfonic acid (PFBS)	1.0078 0.9739	1.0453 0.8790	0.9870	1.0367	1.0529	AveID		0.9975			6.0		20.0				
4:2 FTS	0.1685 0.1780	0.1805 0.1652	0.1714	0.1774	0.1689	AveID		0.1728			3.4		20.0				
Perfluorohexanoic acid (PFHxA)	1.0190 0.8498	0.8725 0.7556	0.9221	0.9014	0.8507	AveID		0.8816			9.1		20.0				
Perfluoropentanesulfonic acid	0.4887 0.5011	0.5146 0.4543	0.5029	0.4765	0.4844	AveID		0.4889			4.1		20.0				
Perfluoroheptanoic acid (PFHpA)	1.2794 0.9857	1.0975 0.8785	1.2089	1.1014	1.0264	AveID		1.0826			12.5		20.0				
Perfluorohexanesulfonic acid (PFHxS)	1.4498 1.1485	1.3302 1.1546	1.1849	1.1316	1.2405	AveID		1.2343			9.5		20.0				
6:2 FTS	1.8992 2.0573	2.2791 2.1109	2.1906	2.1517	2.1468	AveID		2.1194			5.6		20.0				
Perfluoroheptanesulfonic Acid (PFHpS)	1.0313 1.0325	1.0744 0.9705	1.0996	1.1019	1.1527	AveID		1.0661			5.6		20.0				
Perfluorooctanoic acid (PFOA)	+++++ 0.9256	1.1140 0.8147	1.0972	1.1150	1.0796	AveID		1.0244			12.2		20.0				
Perfluorooctanesulfonic acid (PFOS)	0.9584 1.0782	1.0219 1.0708	1.0926	1.1276	1.1855	AveID		1.0764			6.8		20.0				
Perfluorononanoic acid (PFNA)	1.1102 0.9368	1.0655 0.8018	1.0969	1.0823	0.9727	AveID		1.0094			11.1		20.0				
Perfluorononanesulfonic acid	0.6205 0.6212	0.6678 0.5874	0.7031	0.7092	0.6879	AveID		0.6567			7.2		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento

Job No.: 320-44773-1

Analy Batch No.: 263574

SDG No.: _____

Instrument ID: A9

GC Column: Acquity ID: 2.1(mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/07/2018 03:11

Calibration End Date: 12/07/2018 03:55

Calibration ID: 42635

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Perfluorooctanesulfonamide (PFOSA)	3.1100 2.7443	3.0264 2.4864	3.0818	3.1005	2.8381	AveID		2.9125			8.1		20.0				
Perfluorodecanoic acid (PFDA)	1.2910 0.9310	1.1584 0.8695	1.2135	1.2756	1.0950	AveID		1.1192			14.7		20.0				
8:2 FTS	12.821 13.682	13.695 13.297	13.855	16.047	15.434	AveID		14.119			8.3		20.0				
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.9435 0.9033	0.7812 0.8324	0.9039	0.8782	0.8506	AveID		0.8704			6.2		20.0				
Perfluorodecanesulfonic acid (PFDS)	0.9159 0.8939	0.9074 0.8201	0.9873	0.9646	1.0755	AveID		0.9378			8.6		20.0				
Perfluoroundecanoic acid (PFUnA)	0.9889 0.8067	0.8801 0.6952	0.9153	0.8571	0.8431	AveID		0.8552			10.7		20.0				
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.6902 0.8763	0.8515 0.8272	0.8182	0.8477	0.8234	AveID		0.8192			7.4		20.0				
Perfluorododecanoic acid (PFDoA)	1.1047 0.8952	1.0377 0.7613	1.1036	1.0425	1.0767	AveID		1.0031			12.8		20.0				
Perfluorotridecanoic acid (PFTriA)	0.8692 0.7596	0.8668 0.6522	0.9020	0.8572	0.8653	AveID		0.8246			10.7		20.0				
Perfluorotetradecanoic acid (PFTeA)	0.2121 0.1818	0.1835 0.1805	0.1749	0.1742	0.1748	AveID		0.1831			7.3		20.0				
13C4 PFBA	0.9262 0.9861	0.9329 0.9822	0.9186	0.9429	0.9887	Ave		0.9539			3.2		20.0				
13C5 PFPeA	0.8110 0.8440	0.7655 0.8501	0.7967	0.8055	0.8266	Ave		0.8142			3.6		20.0				
13C3 PFBS	1.1934 1.1517	1.1027 1.1911	1.1341	1.1475	1.1804	Ave		1.1573			2.9		20.0				
13C2 PFHxA	0.9049 0.9074	0.8622 0.9415	0.8677	0.8944	0.9151	Ave		0.8990			3.1		20.0				
13C4 PFHpA	1.0641 1.1019	1.1182 1.0787	1.0656	1.0893	1.1023	Ave		1.0886			1.9		20.0				
18O2 PFHxS	0.6840 0.7174	0.6878 0.6709	0.6862	0.7177	0.6776	Ave		0.6917			2.7		20.0				
M2-6:2 FTS	0.0878 0.0885	0.0824 0.0827	0.0882	0.0864	0.0864	Ave		0.0861			3.0		20.0				
13C4 PFOA	0.9956 1.0068	0.9778 0.9842	0.9924	0.9859	0.9836	Ave		0.9895			1.0		20.0				
13C4 PFOS	0.7060 0.7012	0.6926 0.6711	0.6680	0.6868	0.6441	Ave		0.6814			3.2		20.0				
13C5 PFNA	0.9372 0.9135	0.8997 0.8991	0.8961	0.8801	0.9740	Ave		0.9142			3.5		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
 CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 263574

SDG No.: _____

Instrument ID: A9 GC Column: Acquity ID: 2.1 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/07/2018 03:11 Calibration End Date: 12/07/2018 03:55 Calibration ID: 42635

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
13C8 FOSA	0.4620 0.4317	0.4305 0.4107	0.4468	0.4377	0.4422	Ave		0.4374			3.6		20.0				
M2-8:2 FTS	0.0117 0.0121	0.0114 0.0115	0.0117	0.0103	0.0107	Ave		0.0113			5.6		20.0				
13C2 PFDA	0.9844 0.9788	0.9693 0.9050	0.9655	0.9460	0.9627	Ave		0.9588			2.8		20.0				
d3-NMeFOSAA	0.4248 0.4278	0.4210 0.4387	0.3988	0.4195	0.4363	Ave		0.4238			3.1		20.0				
13C2 PFUnA	0.8522 0.8224	0.8171 0.7943	0.8040	0.8525	0.8627	Ave		0.8293			3.2		20.0				
d5-NEtFOSAA	0.3623 0.3486	0.3456 0.3385	0.3742	0.3502	0.3786	Ave		0.3569			4.3		20.0				
13C2 PFDoA	1.0246 1.0252	1.0076 0.9783	0.9706	1.0045	0.9366	Ave		0.9925			3.3		20.0				
13C2 PFTeDA	0.7950 0.8113	0.7695 0.8076	0.7855	0.7985	0.7724	Ave		0.7914			2.1		20.0				
13C2 PFHxDA	0.7999 0.8270	0.7148 0.8110	0.7701	0.8041	0.7975	Ave		0.7892			4.7		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 263574

SDG No.: _____

Instrument ID: A9 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/07/2018 03:11 Calibration End Date: 12/07/2018 03:55 Calibration ID: 42635

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-263574/2	2018.12.06ICALB_002.d
Level 2	IC 320-263574/3	2018.12.06ICALB_003.d
Level 3	IC 320-263574/4	2018.12.06ICALB_004.d
Level 4	IC 320-263574/5	2018.12.06ICALB_005.d
Level 5	IC 320-263574/6	2018.12.06ICALB_006.d
Level 6	IC 320-263574/7	2018.12.06ICALB_007.d
Level 7	IC 320-263574/8	2018.12.06ICALB_008.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7				LVL 6	LVL 7			
Perfluorobutanoic acid (PFBA)		AveID	83937 15255080	134770 26184716	797898	3273262	6543504	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluoropentanoic acid (PFPeA)		AveID	84942 13509191	121494 23467961	745833	2940426	5799686	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorobutanesulfonic acid (PFBS)		AveID	90849 16741639	143730 29051287	872655	3756372	7418078	0.0221 4.42	0.0442 8.84	0.221	0.884	2.21
4:2 FTS		AveID	16051 3233602	26223 5766958	160120	679301	1256984	0.0234 4.67	0.0467 9.34	0.234	0.934	2.34
Perfluorohexanoic acid (PFHxA)		AveID	78790 13020503	106112 22327036	705624	2879650	5256114	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluoropentanesulfonic acid		AveID	46749 9141012	75080 15929410	471824	1832099	3621491	0.0235 4.69	0.0469 9.38	0.235	0.938	2.35
Perfluoroheptanoic acid (PFHpA)		AveID	116324 18340514	173126 29742770	1135958	4285135	7638809	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorohexanesulfonic acid (PFHxS)		AveID	77112 12659990	117447 22126360	652430	2639849	5164472	0.0228 4.55	0.0455 9.10	0.228	0.910	2.28
6:2 FTS		AveID	13503 2915305	25102 5194072	161549	629816	1186826	0.0237 4.74	0.0474 9.48	0.237	0.948	2.37
Perfluoroheptanesulfonic Acid (PFHpS)		AveID	59227 11637437	99938 19462004	616669	2573257	4771892	0.0238 4.76	0.0476 9.52	0.238	0.952	2.38
Perfluorooctanoic acid (PFOA)		AveID	+++++ 15751171	153814 25192629	961179	3930140	7177134	+++++ 5.01	0.0501 10.0	0.250	1.00	2.50
Perfluorooctanesulfonic acid (PFOS)		AveID	53656 11845626	92660 20931676	597305	2566814	4784115	0.0232 4.64	0.0464 9.28	0.232	0.928	2.32
Perfluorononanoic acid (PFNA)		AveID	88902 14448884	135228 22626203	866804	3402004	6397140	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorononanesulfonic acid		AveID	35933 7060057	62639 11877424	397655	1670031	2871698	0.0240 4.80	0.0480 9.60	0.240	0.960	2.40
Perfluorooctanesulfonamide (PFOSA)		AveID	122759 20002243	183789 32051634	1214423	4847332	8472638	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento

Job No.: 320-44773-1

Analy Batch No.: 263574

SDG No.: _____

Instrument ID: A9

GC Column: Acquity

ID: 2.1 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/07/2018 03:11

Calibration End Date: 12/07/2018 03:55

Calibration ID: 42635

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perfluorodecanoic acid (PFDA)		AveID	108592 15385676	158406 24696338	1033201	4310230	7117113	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
8:2 FTS		AveID	12300 2682084	21101 4578346	137173	567379	1063292	0.0240 4.79	0.0479 9.58	0.240	0.958	2.40
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		AveID	34246 6525581	46401 11461188	317915	1315689	2505483	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorodecanesulfonic acid (PFDS)		AveID	53264 10201541	85472 16652366	560674	2280899	4508460	0.0241 4.82	0.0482 9.64	0.241	0.964	2.41
Perfluoroundecanoic acid (PFUnA)		AveID	72013 11201018	101441 17331647	648978	2609979	4910867	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		AveID	12369 5158335	41519 8787853	270042	1060366	2104857	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorododecanoic acid (PFDoA)		AveID	96710 15495379	147490 23376557	944560	3740299	6809111	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorotridecanoic acid (PFTriA)		AveID	76093 13149306	123197 20024988	772025	3075431	5471767	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
Perfluorotetradecanoic acid (PFTeA)		AveID	14411 2490741	19924 4574989	121138	496949	911463	0.0250 5.00	0.0500 10.0	0.250	1.00	2.50
13C4 PFBA	13PF OA	Ave	7913912 8325188	6580214 7706658	8100581	8419837	6675011	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C5 PFPeA	13PF OA	Ave	6929834 7125505	5399088 6670072	7025457	7192931	5580895	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C3 PFBS	13PF OA	Ave	9483811 9042308	7233149 8692070	9301517	9529619	7411901	2.33 2.33	2.33 2.33	2.33	2.33	2.33
13C2 PFHxA	13PF OA	Ave	7732048 7660506	6081254 7387602	7652157	7986210	6178647	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C4 PFHpA	13PF OA	Ave	9092006 9302917	7886985 8464351	9396826	9726558	7442204	2.50 2.50	2.50 2.50	2.50	2.50	2.50
18O2 PFHxS	13PF OA	Ave	5529353 5729501	4589168 4980296	5724232	6062632	4327866	2.37 2.37	2.37 2.37	2.37	2.37	2.37
M2-6:2 FTS	13PF OA	Ave	712482 710026	551855 616451	739027	733299	553999	2.38 2.38	2.38 2.38	2.38	2.38	2.38
13C4 PFOA	13PF OA	Ave	8507401 8500097	6897016 7722619	8751644	8803210	6641096	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C4 PFOS	13PF OA	Ave	5767166 5659063	4670445 5034440	5631921	5862524	4157226	2.39 2.39	2.39 2.39	2.39	2.39	2.39
13C5 PFNA	13PF OA	Ave	8007939 7712203	6345975 7054588	7902533	7858499	6576402	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C8 FOSA	13PF OA	Ave	3947297 3644286	3036402 3222755	3940633	3908525	2985331	2.50 2.50	2.50 2.50	2.50	2.50	2.50
M2-8:2 FTS	13PF OA	Ave	95935 98015	77041 86079	99006	88391	68895	2.40 2.40	2.40 2.40	2.40	2.40	2.40

FORM VI
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
 RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 263574

SDG No.: _____

Instrument ID: A9 GC Column: Acquity ID: 2.1 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/07/2018 03:11 Calibration End Date: 12/07/2018 03:55 Calibration ID: 42635

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7				LVL 6	LVL 7			
13C2 PFDA	13PF OA	Ave	8411234 8263075	6836989 7100956	8514345	8447125	6499495	2.50 2.50	2.50 2.50	2.50	2.50	2.50
d3-NMeFOSAA	13PF OA	Ave	3629648 3611970	2969798 3442201	3517092	3745449	2945665	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFUnA	13PF OA	Ave	7282018 6942772	5763014 6232580	7090461	7612518	5824916	2.50 2.50	2.50 2.50	2.50	2.50	2.50
d5-NEtFOSAA	13PF OA	Ave	3096158 2943341	2437885 2655788	3300247	3127021	2556165	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFDoA	13PF OA	Ave	8754800 8654978	7106702 7676158	8559039	8969509	6323862	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFTeDA	13PF OA	Ave	6793009 6849299	5427444 6336537	6927320	7130191	5214966	2.50 2.50	2.50 2.50	2.50	2.50	2.50
13C2 PFHxDA	13PF OA	Ave	6834908 6981596	5041617 6363155	6791723	7180003	5384511	2.50 2.50	2.50 2.50	2.50	2.50	2.50

Curve Type Legend:

Ave = Average ISTD
AveID = Average isotope dilution

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 263574

SDG No.: _____

Instrument ID: A9 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/07/2018 03:11 Calibration End Date: 12/07/2018 03:55 Calibration ID: 42635

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-263574/2	2018.12.06ICALB_002.d
Level 2	IC 320-263574/3	2018.12.06ICALB_003.d
Level 3	IC 320-263574/4	2018.12.06ICALB_004.d
Level 4	IC 320-263574/5	2018.12.06ICALB_005.d
Level 5	IC 320-263574/6	2018.12.06ICALB_006.d
Level 6	IC 320-263574/7	2018.12.06ICALB_007.d
Level 7	IC 320-263574/8	2018.12.06ICALB_008.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Perfluorobutanoic acid (PFBA)	9.4 -12.4	5.6	1.6	0.2	1.1	-5.5	30 30	30	30	30	30	30
Perfluoropentanoic acid (PFPeA)	17.5 -15.7	7.9	1.8	-2.0	-0.4	-9.1	30 30	30	30	30	30	30
Perfluorobutanesulfonic acid (PFBS)	1.0 -11.9	4.8	-1.1	3.9	5.6	-2.4	30 30	30	30	30	30	30
4:2 FTS	-2.5 -4.4	4.4	-0.8	2.7	-2.3	3.0	30 30	30	30	30	30	30
Perfluorohexanoic acid (PFHxA)	15.6 -14.3	-1.0	4.6	2.3	-3.5	-3.6	30 30	30	30	30	30	30
Perfluoropentanesulfonic acid	0.0 -7.1	5.2	2.9	-2.5	-0.9	2.5	30 30	30	30	30	30	30
Perfluoroheptanoic acid (PFHpA)	18.2 -18.9	1.4	11.7	1.7	-5.2	-8.9	30 30	30	30	30	30	30
Perfluorohexanesulfonic acid (PFHxS)	17.5 -6.5	7.8	-4.0	-8.3	0.5	-7.0	30 30	30	30	30	30	30
6:2 FTS	-10.4 -0.4	7.5	3.4	1.5	1.3	-2.9	30 30	30	30	30	30	30
Perfluoroheptanesulfonic Acid (PFHpS)	-3.3 -9.0	0.8	3.1	3.4	8.1	-3.2	30 30	30	30	30	30	30
Perfluorooctanoic acid (PFOA)	++++ -20.5	8.7	7.1	8.8	5.4	-9.6	30	30	30	30	30	30
Perfluorooctanesulfonic acid (PFOS)	-11.0 -0.5	-5.1	1.5	4.8	10.1	0.2	30 30	30	30	30	30	30
Perfluorononanoic acid (PFNA)	10.0 -20.6	5.5	8.7	7.2	-3.6	-7.2	30 30	30	30	30	30	30
Perfluorononanesulfonic acid	-5.5 -10.6	1.7	7.1	8.0	4.7	-5.4	30 30	30	30	30	30	30
Perfluorooctanesulfonamide (PFOSA)	6.8 -14.6	3.9	5.8	6.5	-2.6	-5.8	30 30	30	30	30	30	30

FORM VI
 LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
 READBACK PERCENT ERROR

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1 Analy Batch No.: 263574

SDG No.: _____

Instrument ID: A9 GC Column: Acquity ID: 2.1 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/07/2018 03:11 Calibration End Date: 12/07/2018 03:55 Calibration ID: 42635

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Perfluorodecanoic acid (PFDA)	15.4 -22.3	3.5	8.4	14.0	-2.2	-16.8	30 30	30	30	30	30	30
8:2 FTS	-9.2 -5.8	-3.0	-1.9	13.7	9.3	-3.1	30 30	30	30	30	30	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	8.4 -4.4	-10.3	3.8	0.9	-2.3	3.8	30 30	30	30	30	30	30
Perfluorodecanesulfonic acid (PFDS)	-2.3 -12.6	-3.2	5.3	2.9	14.7	-4.7	30 30	30	30	30	30	30
Perfluoroundecanoic acid (PFUnA)	15.6 -18.7	2.9	7.0	0.2	-1.4	-5.7	30 30	30	30	30	30	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	-15.8 1.0	3.9	-0.1	3.5	0.5	7.0	30 30	30	30	30	30	30
Perfluorododecanoic acid (PFDoA)	10.1 -24.1	3.4	10.0	3.9	7.3	-10.8	30 30	30	30	30	30	30
Perfluorotridecanoic acid (PFTriA)	5.4 -20.9	5.1	9.4	4.0	4.9	-7.9	30 30	30	30	30	30	30
Perfluorotetradecanoic acid (PFTeA)	15.8 -1.4	0.2	-4.5	-4.9	-4.6	-0.7	30 30	30	30	30	30	30

Calibration

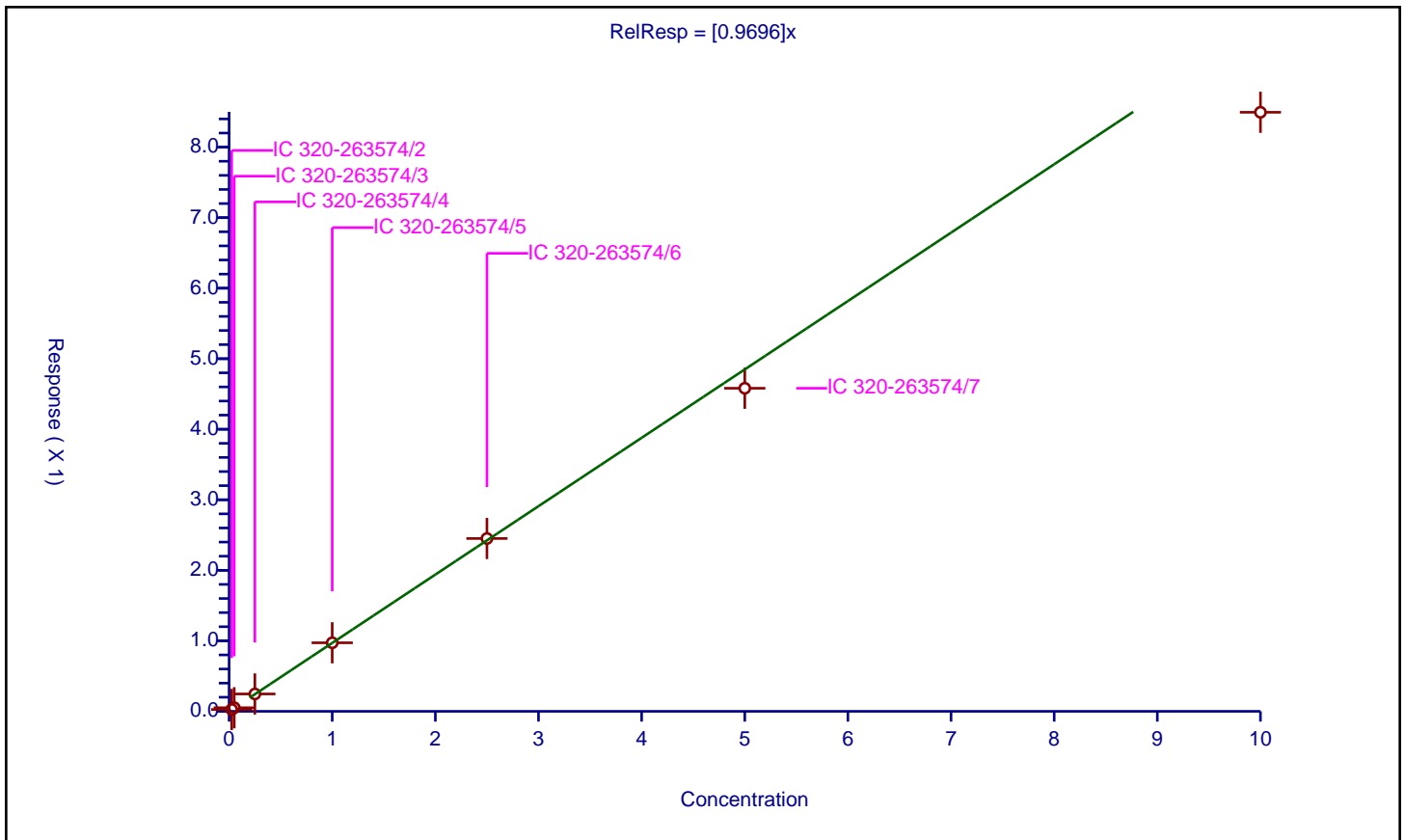
/ Perfluorobutanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9696

Error Coefficients	
Standard Error:	12700000
Relative Standard Error:	7.2
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.026516	2.5	7913912.0	1.060626	Y
2	IC 320-263574/3	0.05	0.051203	2.5	6580214.0	1.024055	Y
3	IC 320-263574/4	0.25	0.246247	2.5	8100581.0	0.984989	Y
4	IC 320-263574/5	1.0	0.97189	2.5	8419837.0	0.97189	Y
5	IC 320-263574/6	2.5	2.450747	2.5	6675011.0	0.980299	Y
6	IC 320-263574/7	5.0	4.581002	2.5	8325188.0	0.9162	Y
7	IC 320-263574/8	10.0	8.494186	2.5	7706658.0	0.849419	Y



Calibration

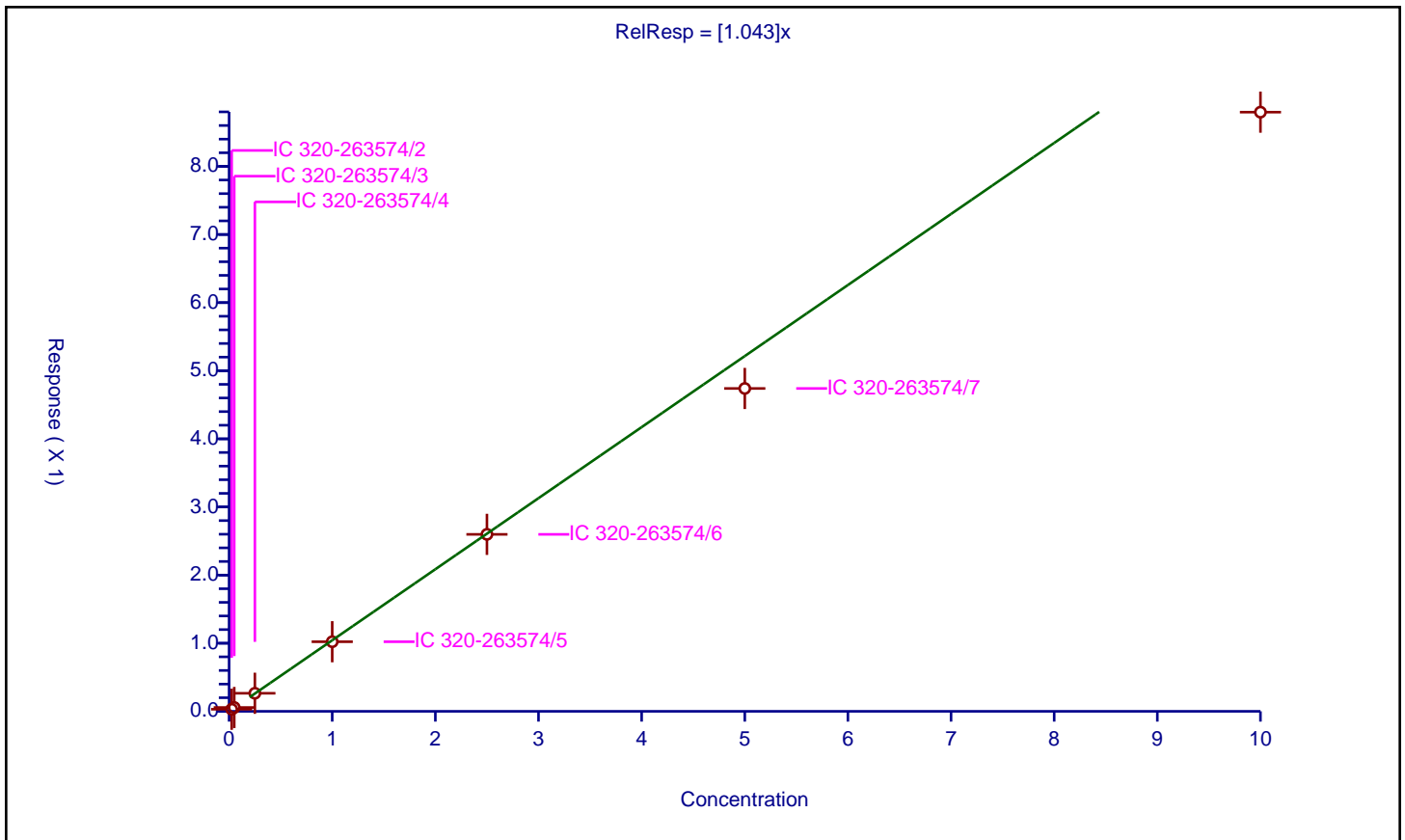
/ Perfluoropentanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.043

Error Coefficients	
Standard Error:	11400000
Relative Standard Error:	10.8
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.030644	2.5	6929834.0	1.225744	Y
2	IC 320-263574/3	0.05	0.056257	2.5	5399088.0	1.125134	Y
3	IC 320-263574/4	0.25	0.265404	2.5	7025457.0	1.061615	Y
4	IC 320-263574/5	1.0	1.021985	2.5	7192931.0	1.021985	Y
5	IC 320-263574/6	2.5	2.598009	2.5	5580895.0	1.039204	Y
6	IC 320-263574/7	5.0	4.739731	2.5	7125505.0	0.947946	Y
7	IC 320-263574/8	10.0	8.795992	2.5	6670072.0	0.879599	Y



Calibration

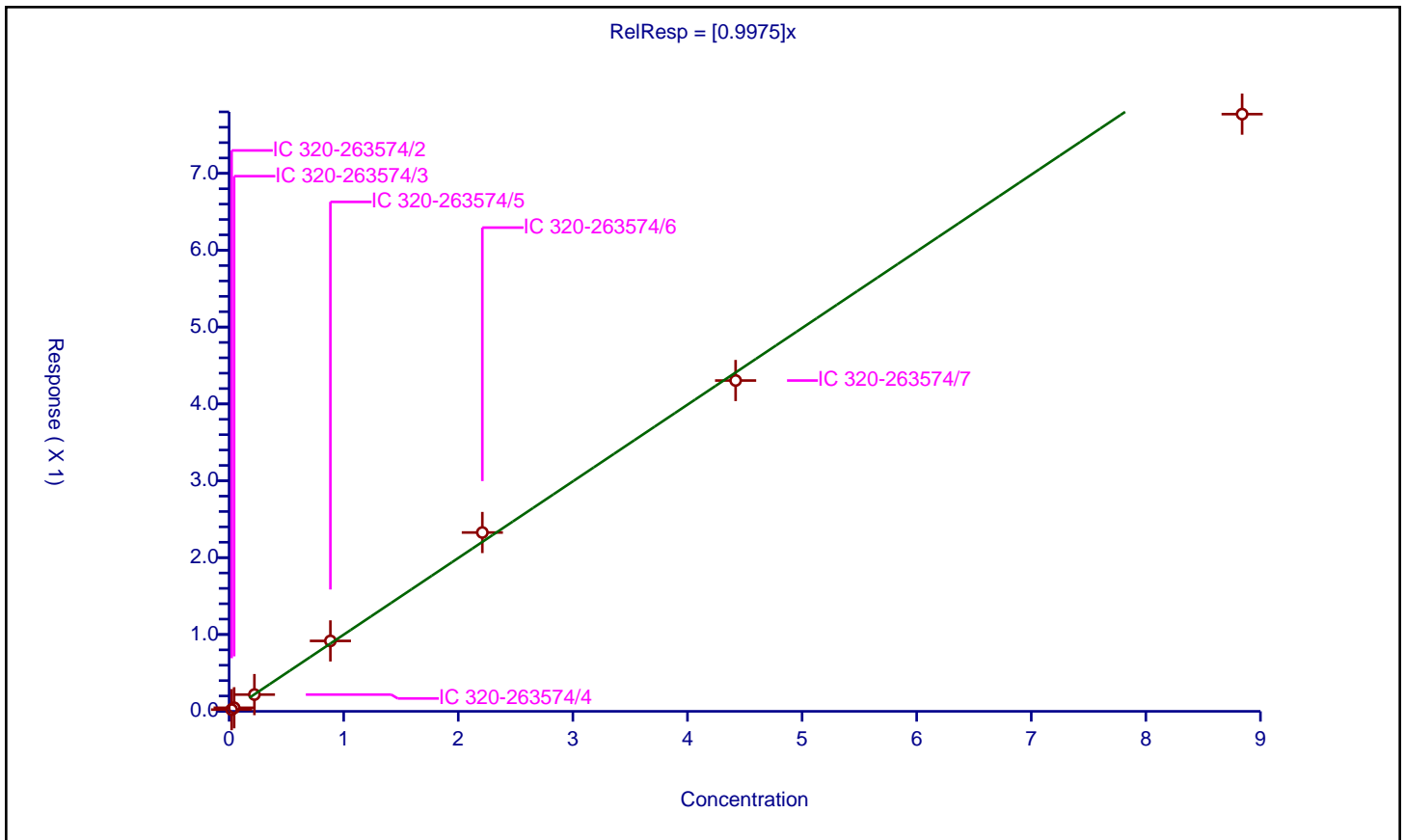
/ Perfluorobutanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9975

Error Coefficients	
Standard Error:	14100000
Relative Standard Error:	6.0
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.0221	0.022272	2.325	9483811.0	1.007785	Y
2	IC 320-263574/3	0.0442	0.0462	2.325	7233149.0	1.045251	Y
3	IC 320-263574/4	0.221	0.218128	2.325	9301517.0	0.987005	Y
4	IC 320-263574/5	0.884	0.916465	2.325	9529619.0	1.036725	Y
5	IC 320-263574/6	2.21	2.326938	2.325	7411901.0	1.052913	Y
6	IC 320-263574/7	4.42	4.304688	2.325	9042308.0	0.973911	Y
7	IC 320-263574/8	8.84	7.770789	2.325	8692070.0	0.879049	Y



Calibration

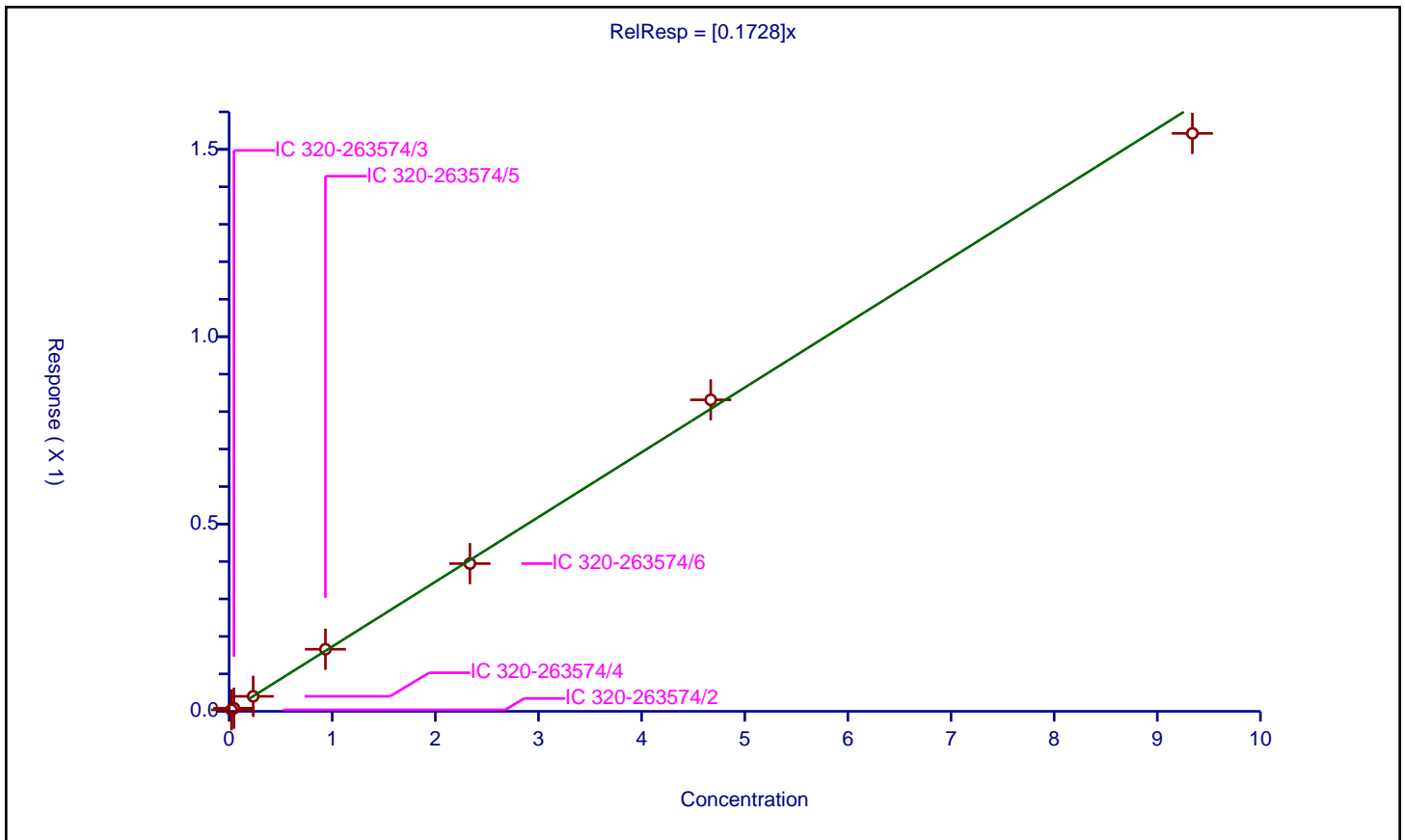
/ 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1728

Error Coefficients	
Standard Error:	2760000
Relative Standard Error:	3.4
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.02335	0.003935	2.325	9483811.0	0.168521	Y
2	IC 320-263574/3	0.0467	0.008429	2.325	7233149.0	0.180493	Y
3	IC 320-263574/4	0.2335	0.040023	2.325	9301517.0	0.171407	Y
4	IC 320-263574/5	0.934	0.165733	2.325	9529619.0	0.177445	Y
5	IC 320-263574/6	2.335	0.394297	2.325	7411901.0	0.168864	Y
6	IC 320-263574/7	4.67	0.831439	2.325	9042308.0	0.178038	Y
7	IC 320-263574/8	9.34	1.542576	2.325	8692070.0	0.165158	Y



Calibration

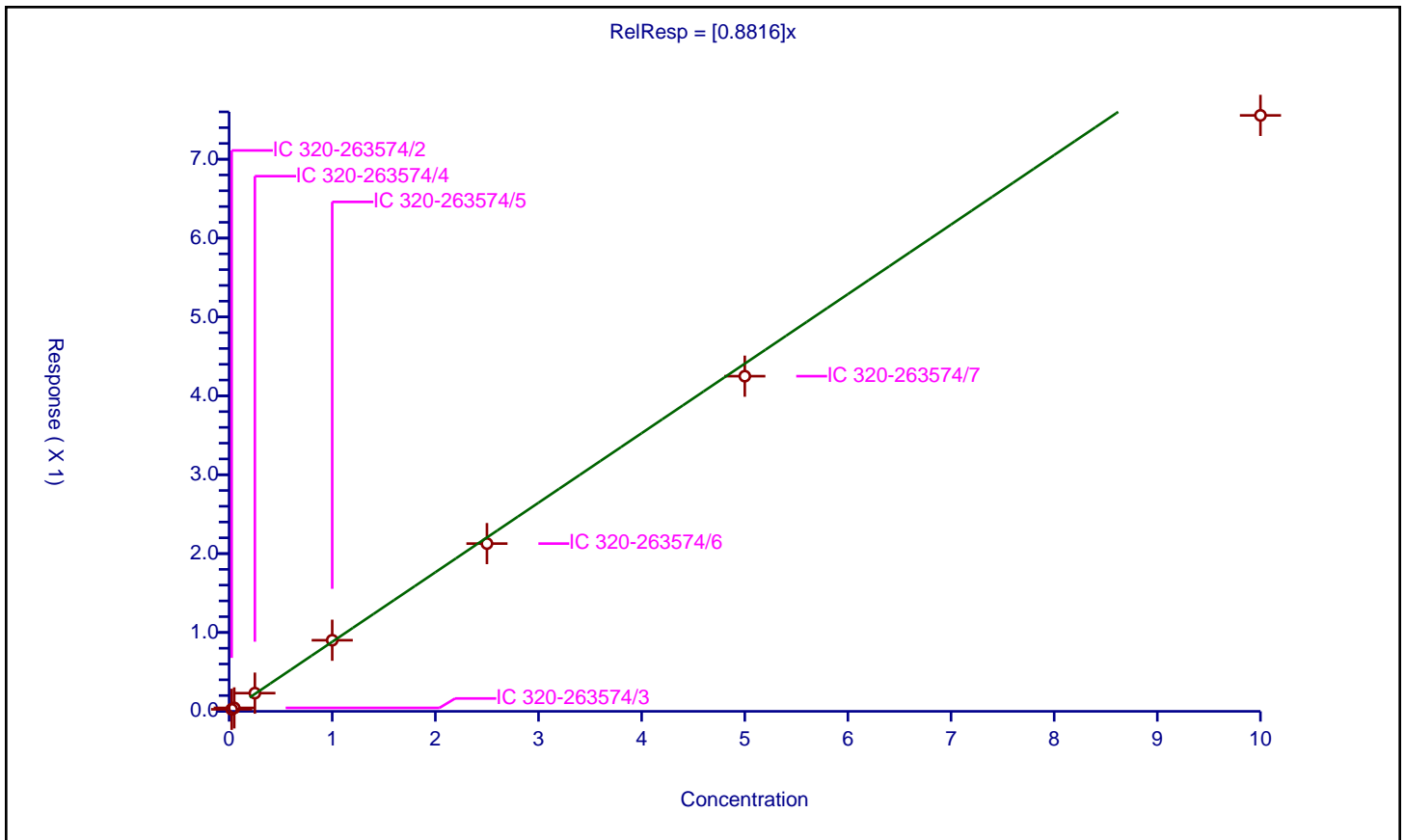
/ Perfluorohexanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8816

Error Coefficients	
Standard Error:	10800000
Relative Standard Error:	9.1
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.025475	2.5	7732048.0	1.019006	Y
2	IC 320-263574/3	0.05	0.043623	2.5	6081254.0	0.872452	Y
3	IC 320-263574/4	0.25	0.230531	2.5	7652157.0	0.922124	Y
4	IC 320-263574/5	1.0	0.901444	2.5	7986210.0	0.901444	Y
5	IC 320-263574/6	2.5	2.126725	2.5	6178647.0	0.85069	Y
6	IC 320-263574/7	5.0	4.249231	2.5	7660506.0	0.849846	Y
7	IC 320-263574/8	10.0	7.555576	2.5	7387602.0	0.755558	Y



Calibration

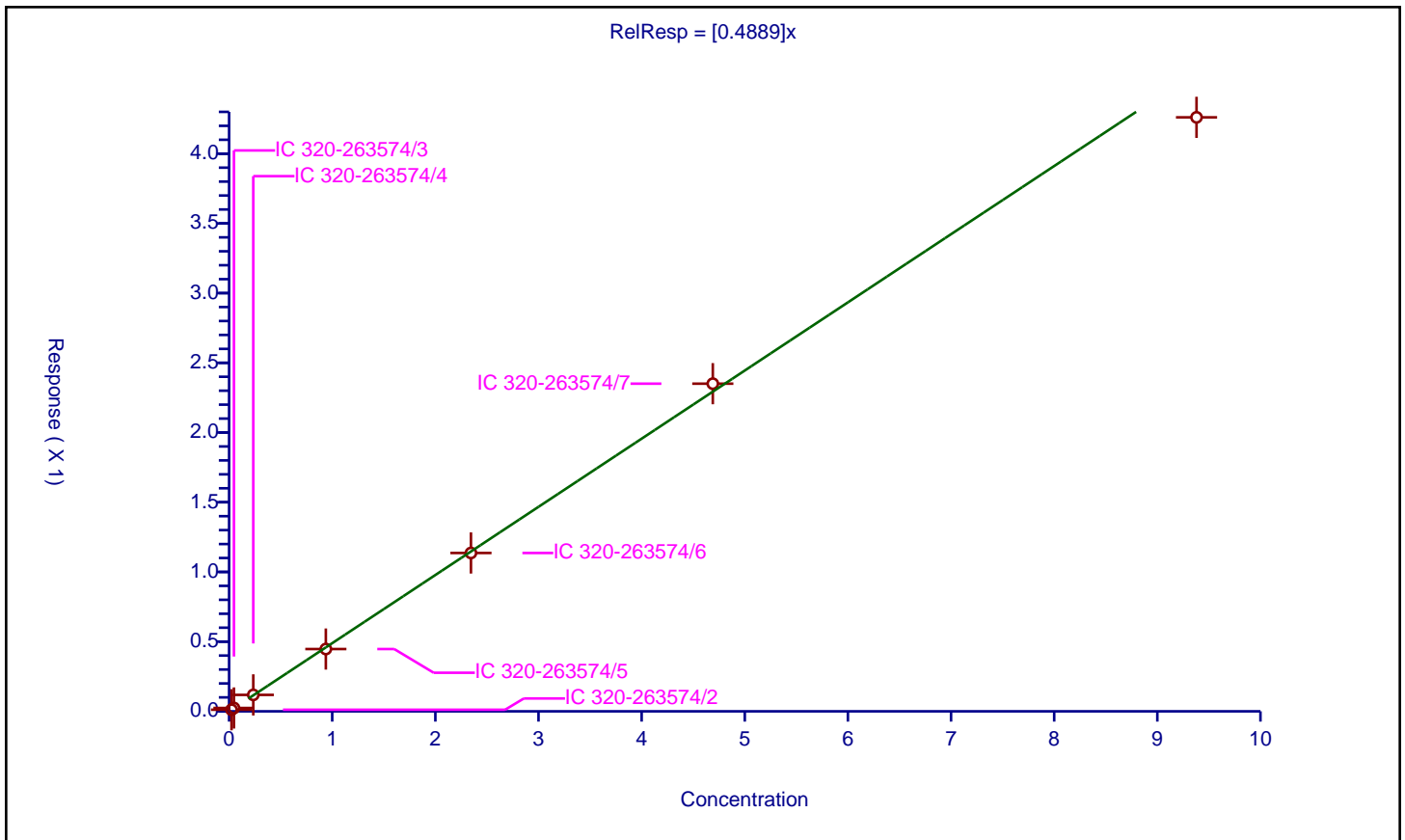
/ Perfluoropentanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4889

Error Coefficients	
Standard Error:	7680000
Relative Standard Error:	4.1
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.02345	0.011461	2.325	9483811.0	0.488731	Y
2	IC 320-263574/3	0.0469	0.024133	2.325	7233149.0	0.514573	Y
3	IC 320-263574/4	0.2345	0.117937	2.325	9301517.0	0.502929	Y
4	IC 320-263574/5	0.938	0.446989	2.325	9529619.0	0.476534	Y
5	IC 320-263574/6	2.345	1.136006	2.325	7411901.0	0.484438	Y
6	IC 320-263574/7	4.69	2.350379	2.325	9042308.0	0.501147	Y
7	IC 320-263574/8	9.38	4.260881	2.325	8692070.0	0.454252	Y



Calibration

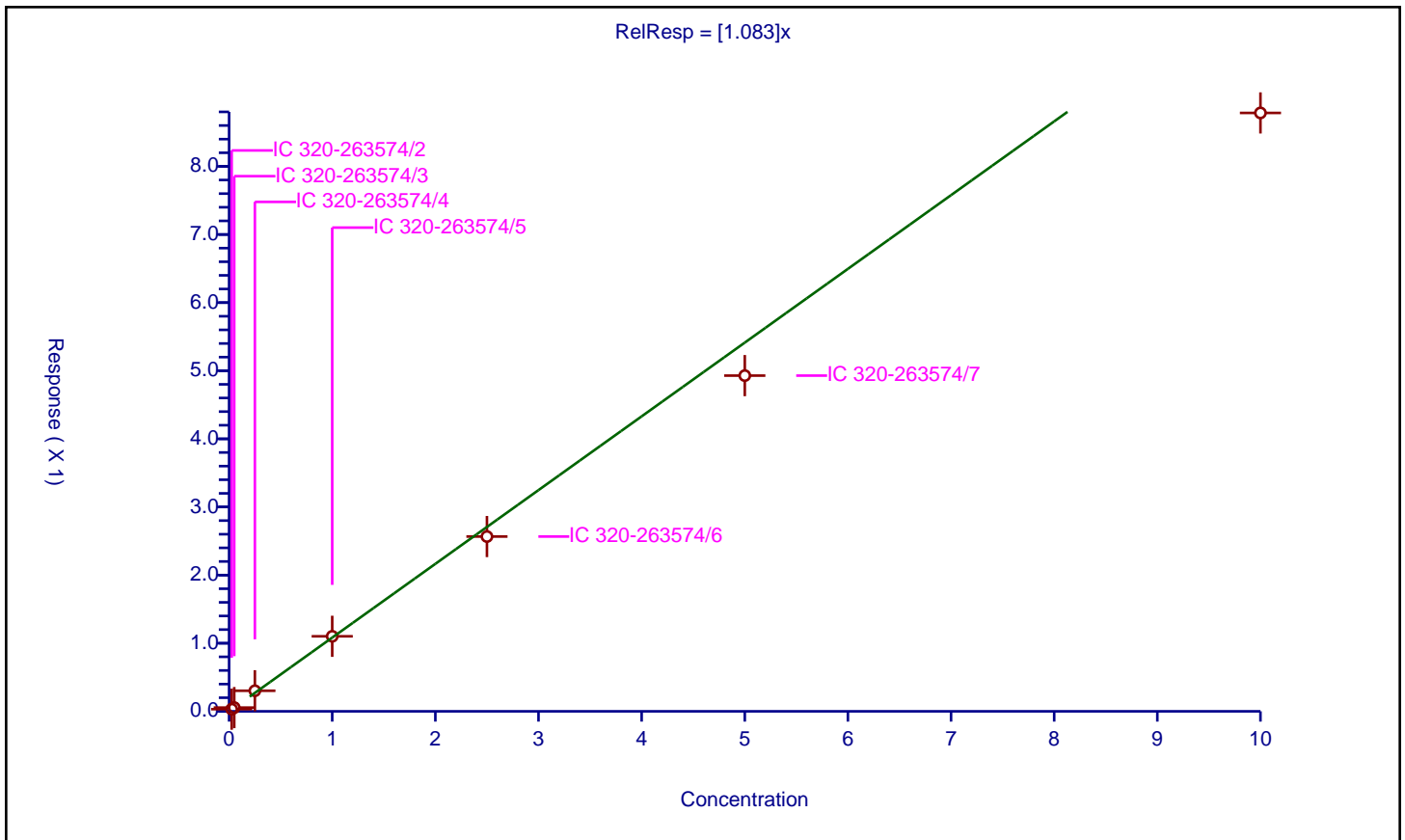
/ Perfluoroheptanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.083

Error Coefficients	
Standard Error:	14700000
Relative Standard Error:	12.5
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.031985	2.5	9092006.0	1.27941	Y
2	IC 320-263574/3	0.05	0.054877	2.5	7886985.0	1.097542	Y
3	IC 320-263574/4	0.25	0.302219	2.5	9396826.0	1.208874	Y
4	IC 320-263574/5	1.0	1.101401	2.5	9726558.0	1.101401	Y
5	IC 320-263574/6	2.5	2.566044	2.5	7442204.0	1.026418	Y
6	IC 320-263574/7	5.0	4.9287	2.5	9302917.0	0.98574	Y
7	IC 320-263574/8	10.0	8.784717	2.5	8464351.0	0.878472	Y



Calibration

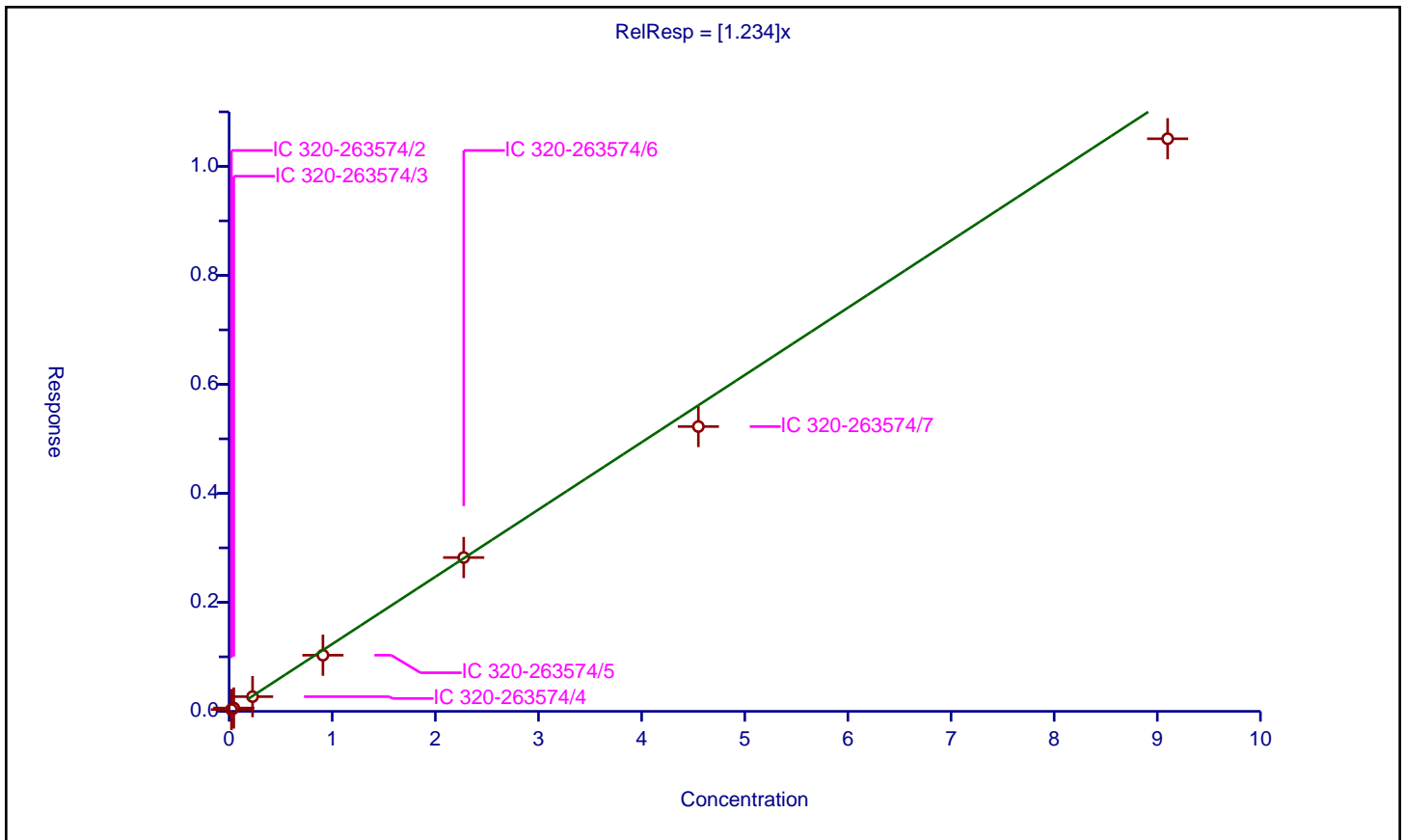
/ Perfluorohexanesulfonic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.234

Error Coefficients	
Standard Error:	10700000
Relative Standard Error:	9.5
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.02275	0.032982	2.365	5529353.0	1.449764	Y
2	IC 320-263574/3	0.0455	0.060526	2.365	4589168.0	1.330233	Y
3	IC 320-263574/4	0.2275	0.269555	2.365	5724232.0	1.184858	Y
4	IC 320-263574/5	0.91	1.029791	2.365	6062632.0	1.131638	Y
5	IC 320-263574/6	2.275	2.822171	2.365	4327866.0	1.240515	Y
6	IC 320-263574/7	4.55	5.225739	2.365	5729501.0	1.148514	Y
7	IC 320-263574/8	9.1	10.507175	2.365	4980296.0	1.154635	Y



Calibration

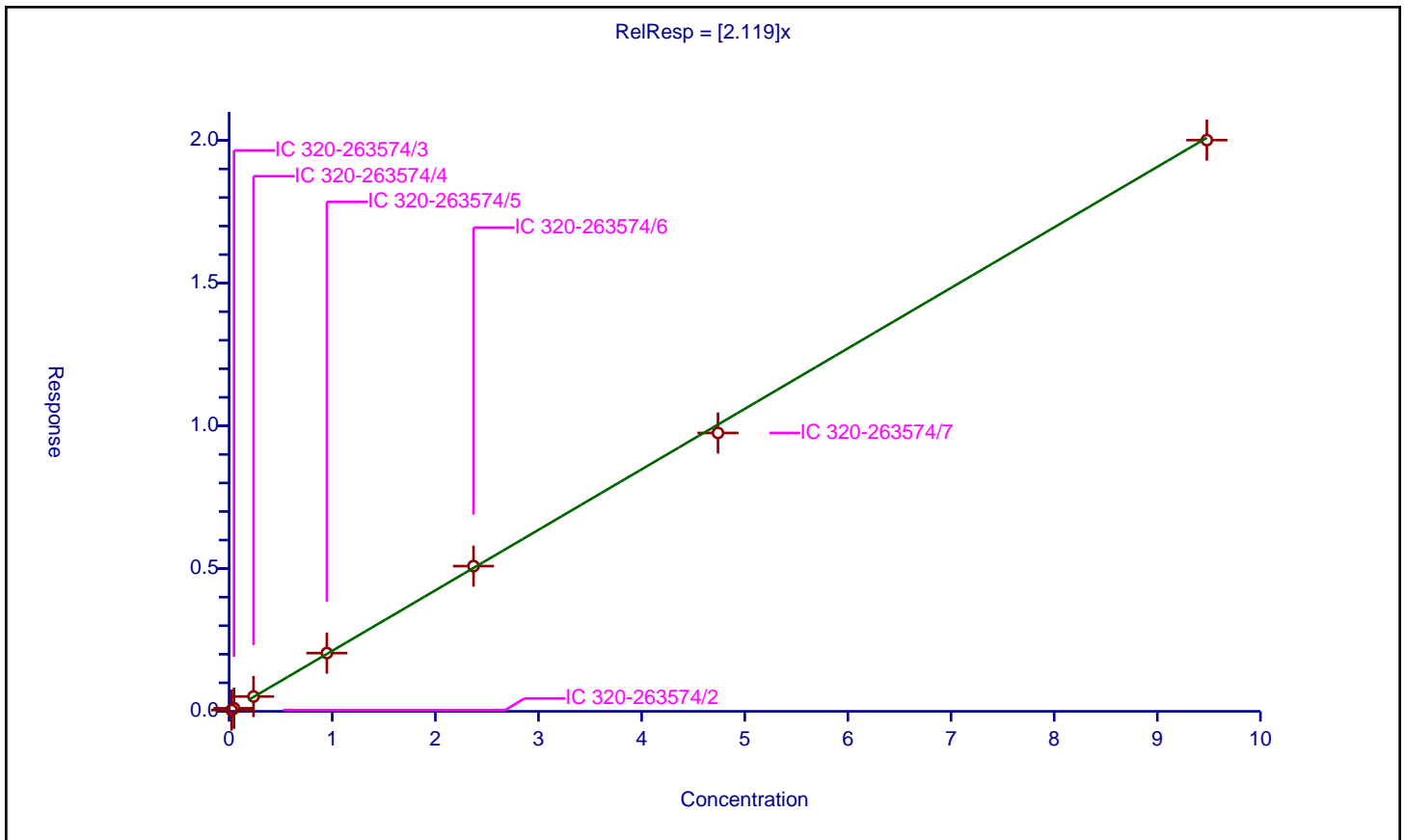
/ 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.119

Error Coefficients	
Standard Error:	2490000
Relative Standard Error:	5.6
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.0237	0.045011	2.375	712482.0	1.899204	Y
2	IC 320-263574/3	0.0474	0.108031	2.375	551855.0	2.279127	Y
3	IC 320-263574/4	0.237	0.519168	2.375	739027.0	2.190581	Y
4	IC 320-263574/5	0.948	2.039841	2.375	733299.0	2.15173	Y
5	IC 320-263574/6	2.37	5.087937	2.375	553999.0	2.146809	Y
6	IC 320-263574/7	4.74	9.751543	2.375	710026.0	2.057288	Y
7	IC 320-263574/8	9.48	20.011195	2.375	616451.0	2.110886	Y



Calibration

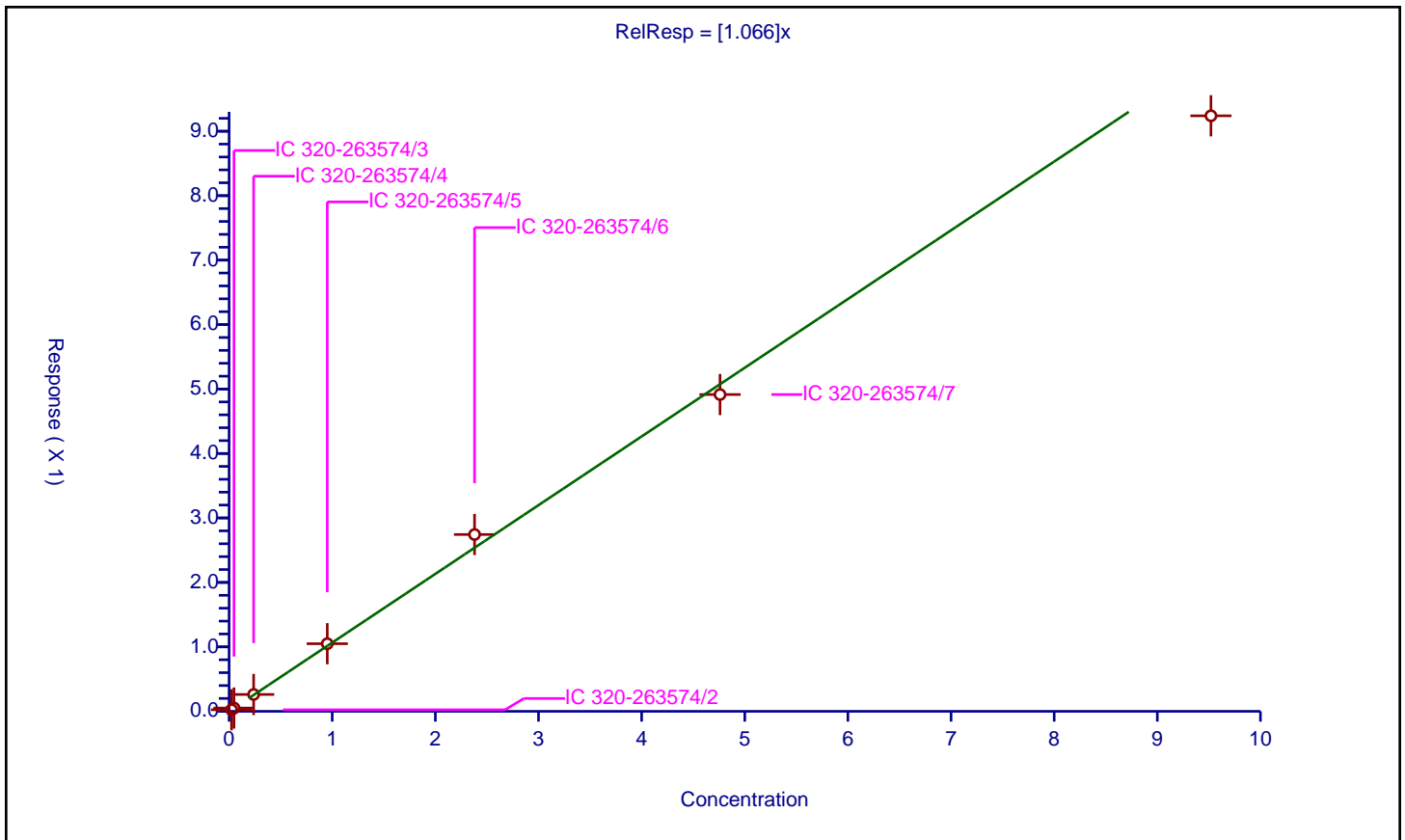
/ Perfluoroheptanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.066

Error Coefficients	
Standard Error:	9520000
Relative Standard Error:	5.6
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.0238	0.024545	2.39	5767166.0	1.031284	Y
2	IC 320-263574/3	0.0476	0.051141	2.39	4670445.0	1.074393	Y
3	IC 320-263574/4	0.238	0.261694	2.39	5631921.0	1.099554	Y
4	IC 320-263574/5	0.952	1.049051	2.39	5862524.0	1.101944	Y
5	IC 320-263574/6	2.38	2.743373	2.39	4157226.0	1.152678	Y
6	IC 320-263574/7	4.76	4.914855	2.39	5659063.0	1.032533	Y
7	IC 320-263574/8	9.52	9.239198	2.39	5034440.0	0.970504	Y



Calibration

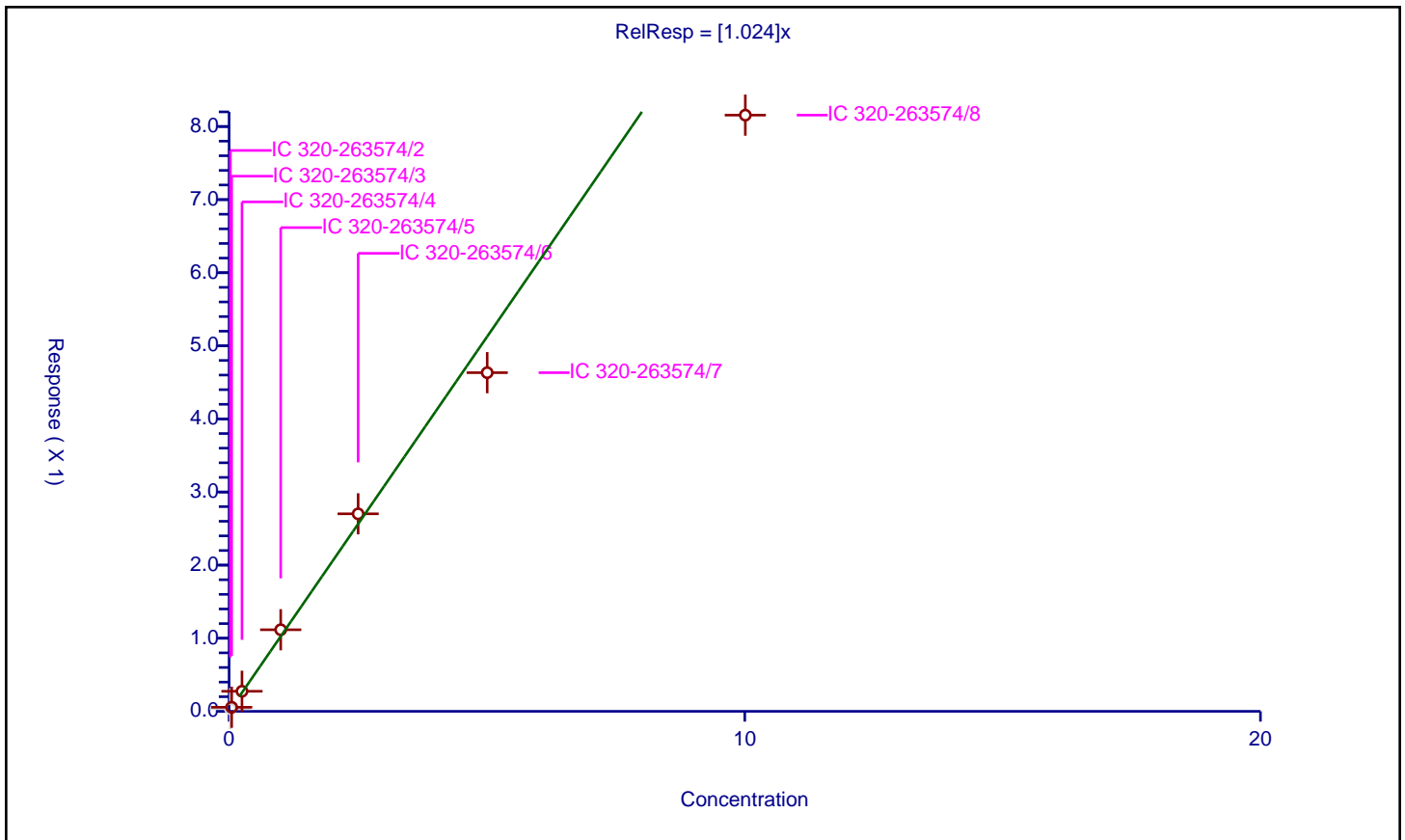
/ Perfluorooctanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.024

Error Coefficients	
Standard Error:	13800000
Relative Standard Error:	12.2
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025025	0.036219	2.5	8507401.0	1.447315	N
2	IC 320-263574/3	0.05005	0.055754	2.5	6897016.0	1.113962	Y
3	IC 320-263574/4	0.25025	0.274571	2.5	8751644.0	1.097187	Y
4	IC 320-263574/5	1.001	1.11611	2.5	8803210.0	1.114995	Y
5	IC 320-263574/6	2.5025	2.701788	2.5	6641096.0	1.079636	Y
6	IC 320-263574/7	5.005	4.632644	2.5	8500097.0	0.925603	Y
7	IC 320-263574/8	10.01	8.155468	2.5	7722619.0	0.814732	Y



Calibration

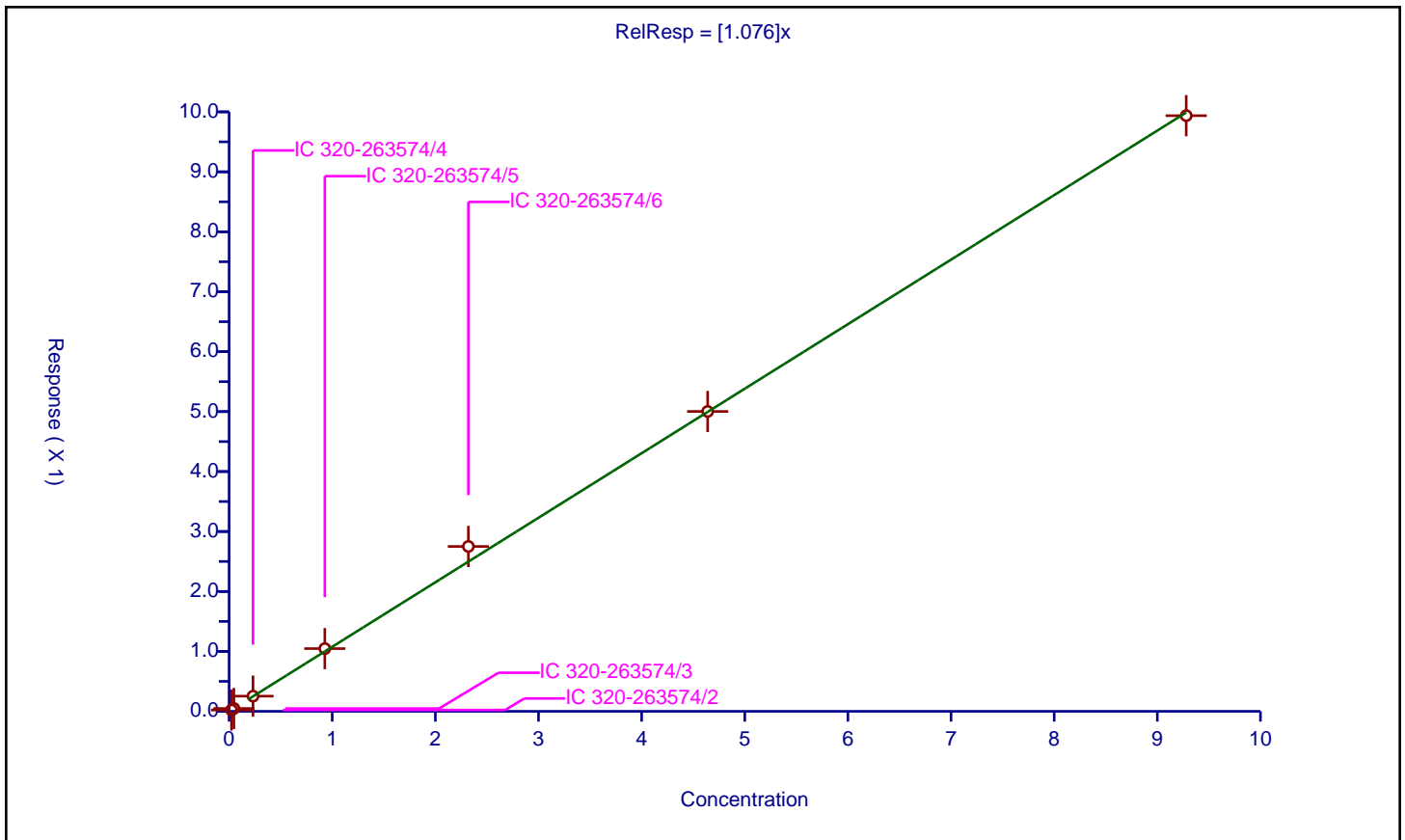
/ Perfluorooctanesulfonic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.076

Error Coefficients	
Standard Error:	10100000
Relative Standard Error:	6.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.0232	0.022236	2.39	5767166.0	0.958442	Y
2	IC 320-263574/3	0.0464	0.047417	2.39	4670445.0	1.021913	Y
3	IC 320-263574/4	0.232	0.253476	2.39	5631921.0	1.092571	Y
4	IC 320-263574/5	0.928	1.046424	2.39	5862524.0	1.127612	Y
5	IC 320-263574/6	2.32	2.7504	2.39	4157226.0	1.185517	Y
6	IC 320-263574/7	4.64	5.00278	2.39	5659063.0	1.078185	Y
7	IC 320-263574/8	9.28	9.936896	2.39	5034440.0	1.070786	Y



Calibration

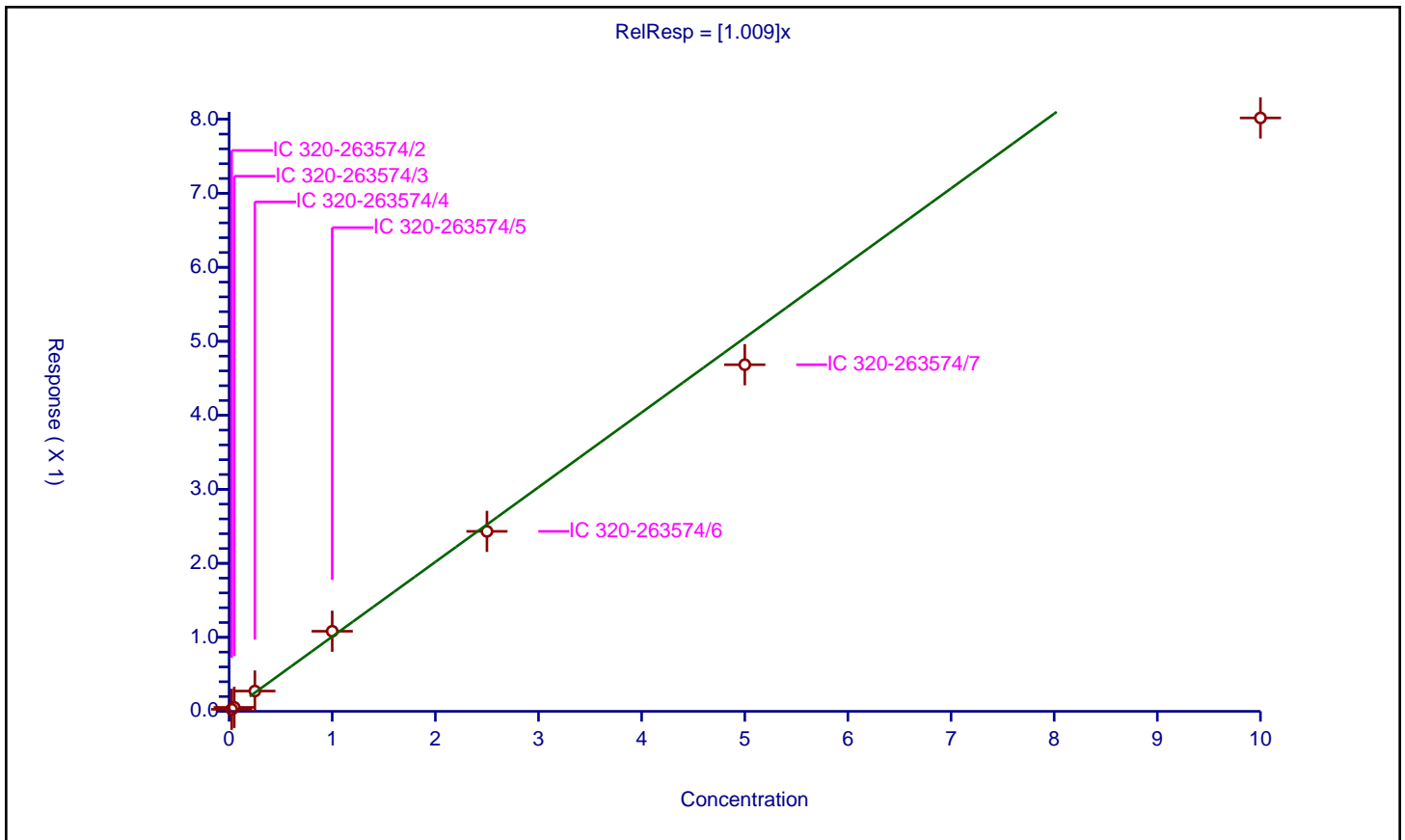
/ Perfluorononanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.009

Error Coefficients	
Standard Error:	11400000
Relative Standard Error:	11.1
Correlation Coefficient:	0.983
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.027754	2.5	8007939.0	1.110173	Y
2	IC 320-263574/3	0.05	0.053273	2.5	6345975.0	1.065463	Y
3	IC 320-263574/4	0.25	0.274217	2.5	7902533.0	1.096869	Y
4	IC 320-263574/5	1.0	1.082269	2.5	7858499.0	1.082269	Y
5	IC 320-263574/6	2.5	2.431854	2.5	6576402.0	0.972742	Y
6	IC 320-263574/7	5.0	4.683773	2.5	7712203.0	0.936755	Y
7	IC 320-263574/8	10.0	8.018258	2.5	7054588.0	0.801826	Y



Calibration

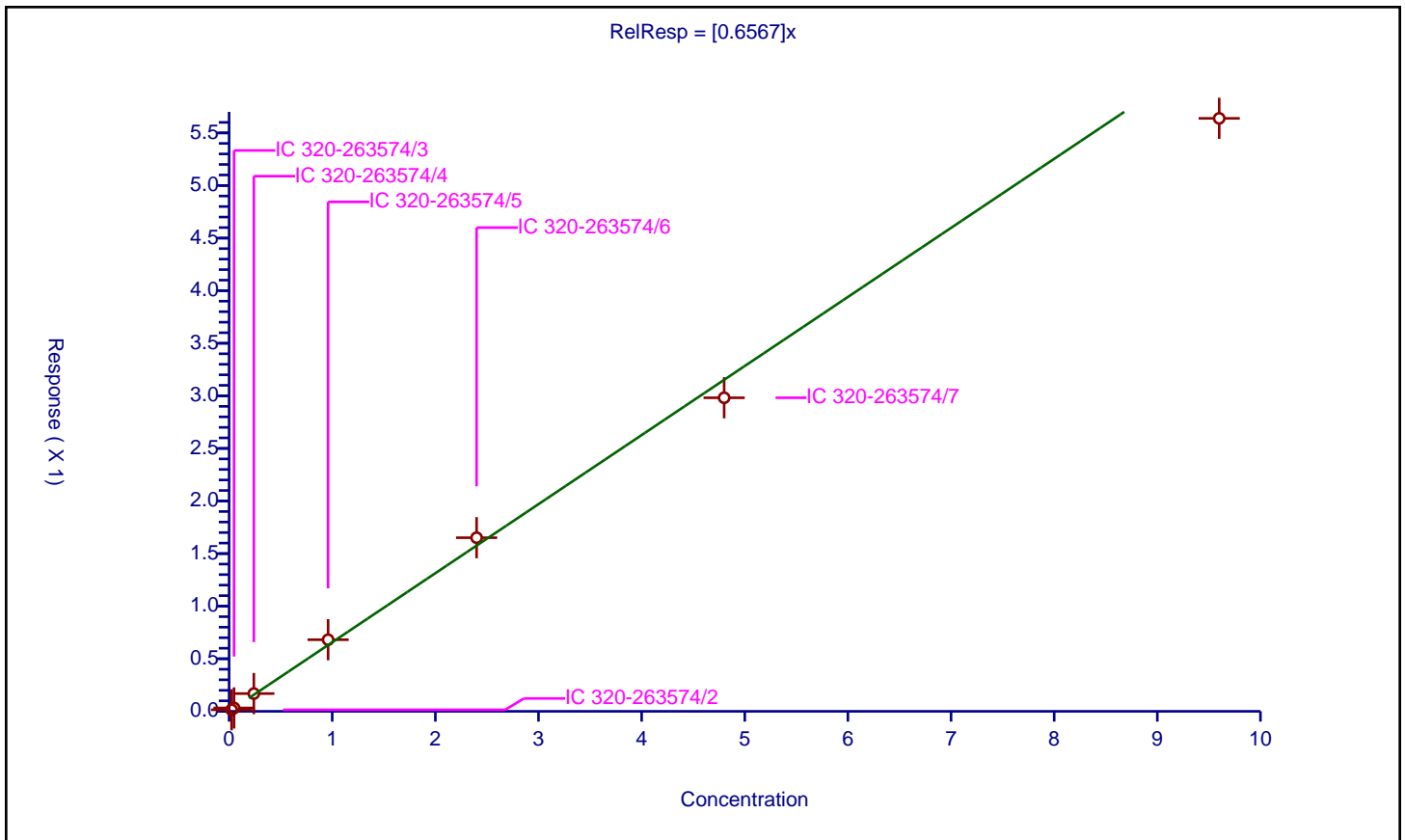
/ Perfluorononanesulfonic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6567

Error Coefficients	
Standard Error:	5800000
Relative Standard Error:	7.2
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.024	0.014891	2.39	5767166.0	0.620466	Y
2	IC 320-263574/3	0.048	0.032054	2.39	4670445.0	0.667795	Y
3	IC 320-263574/4	0.24	0.168752	2.39	5631921.0	0.703131	Y
4	IC 320-263574/5	0.96	0.680829	2.39	5862524.0	0.709196	Y
5	IC 320-263574/6	2.4	1.650947	2.39	4157226.0	0.687894	Y
6	IC 320-263574/7	4.8	2.981684	2.39	5659063.0	0.621184	Y
7	IC 320-263574/8	9.6	5.63857	2.39	5034440.0	0.587351	Y



Calibration

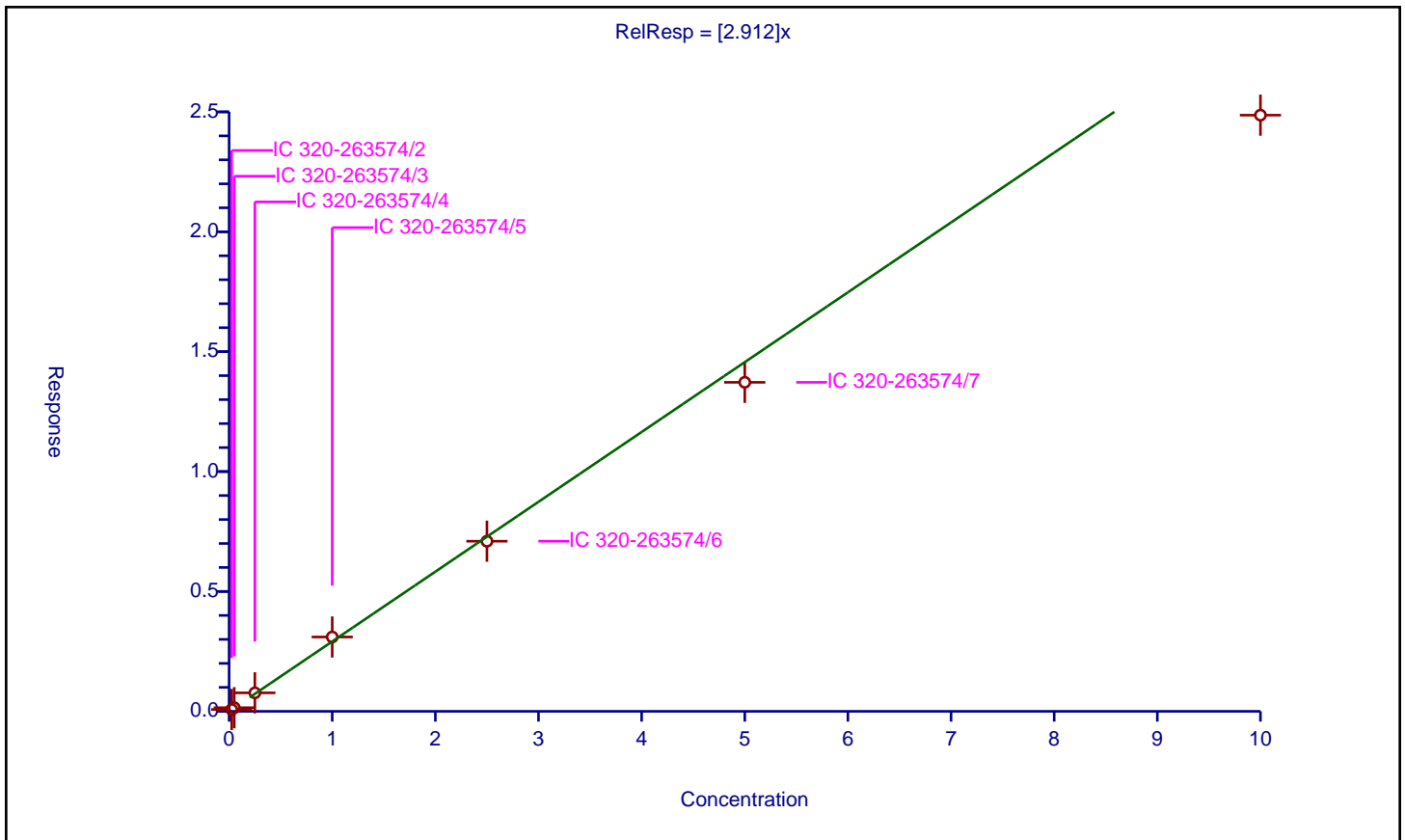
/ Perfluorooctanesulfonamide

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.912

Error Coefficients	
Standard Error:	15900000
Relative Standard Error:	8.1
Correlation Coefficient:	0.986
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.077749	2.5	3947297.0	3.109951	Y
2	IC 320-263574/3	0.05	0.151321	2.5	3036402.0	3.026427	Y
3	IC 320-263574/4	0.25	0.770449	2.5	3940633.0	3.081797	Y
4	IC 320-263574/5	1.0	3.100487	2.5	3908525.0	3.100487	Y
5	IC 320-263574/6	2.5	7.095225	2.5	2985331.0	2.83809	Y
6	IC 320-263574/7	5.0	13.721647	2.5	3644286.0	2.744329	Y
7	IC 320-263574/8	10.0	24.863536	2.5	3222755.0	2.486354	Y



Calibration

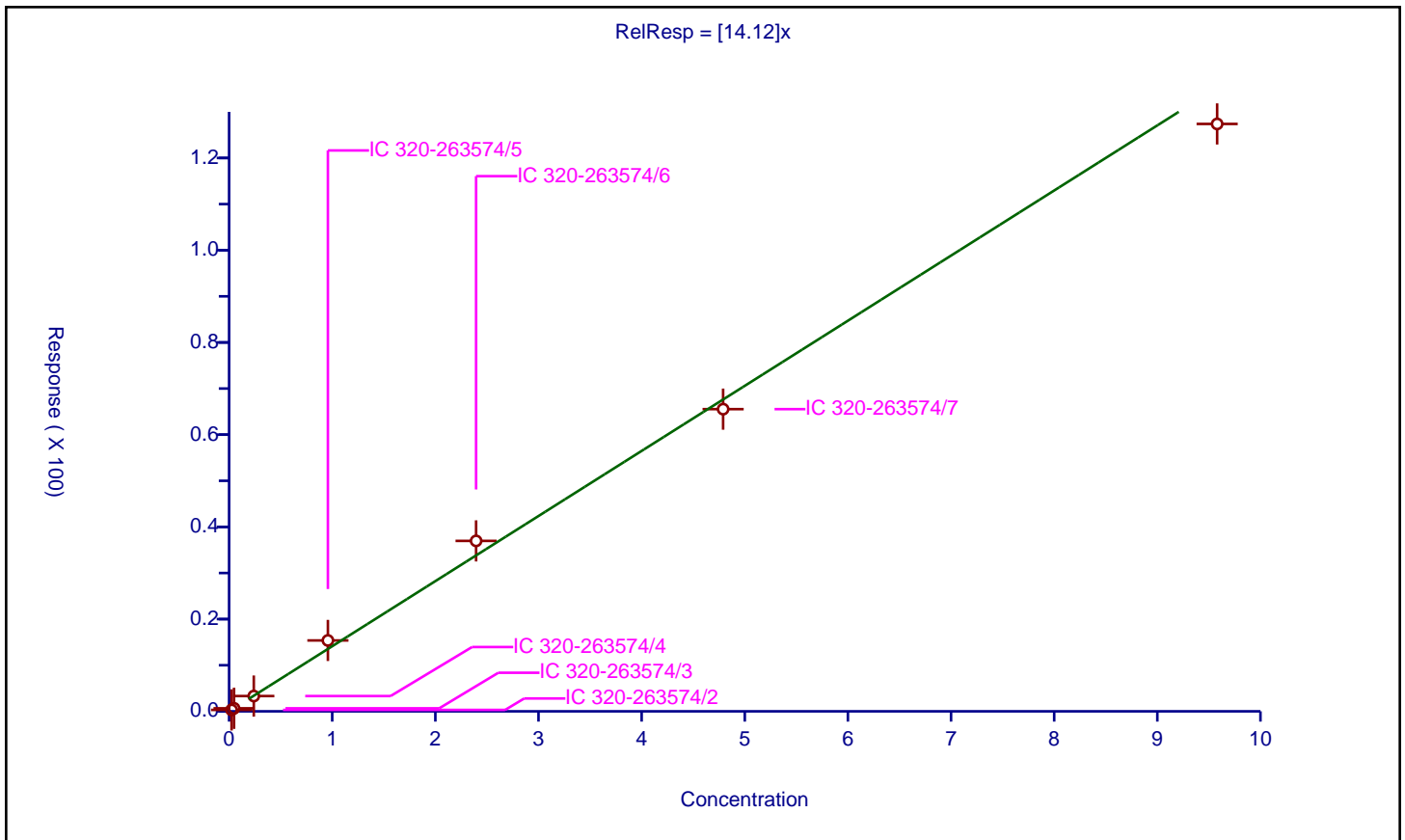
/ 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	14.12

Error Coefficients	
Standard Error:	2220000
Relative Standard Error:	8.3
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.02395	0.307067	2.395	95935.0	12.821181	Y
2	IC 320-263574/3	0.0479	0.655974	2.395	77041.0	13.694656	Y
3	IC 320-263574/4	0.2395	3.318277	2.395	99006.0	13.855019	Y
4	IC 320-263574/5	0.958	15.373428	2.395	88391.0	16.04742	Y
5	IC 320-263574/6	2.395	36.963268	2.395	68895.0	15.433515	Y
6	IC 320-263574/7	4.79	65.536818	2.395	98015.0	13.682008	Y
7	IC 320-263574/8	9.58	127.384596	2.395	86079.0	13.296931	Y



Calibration

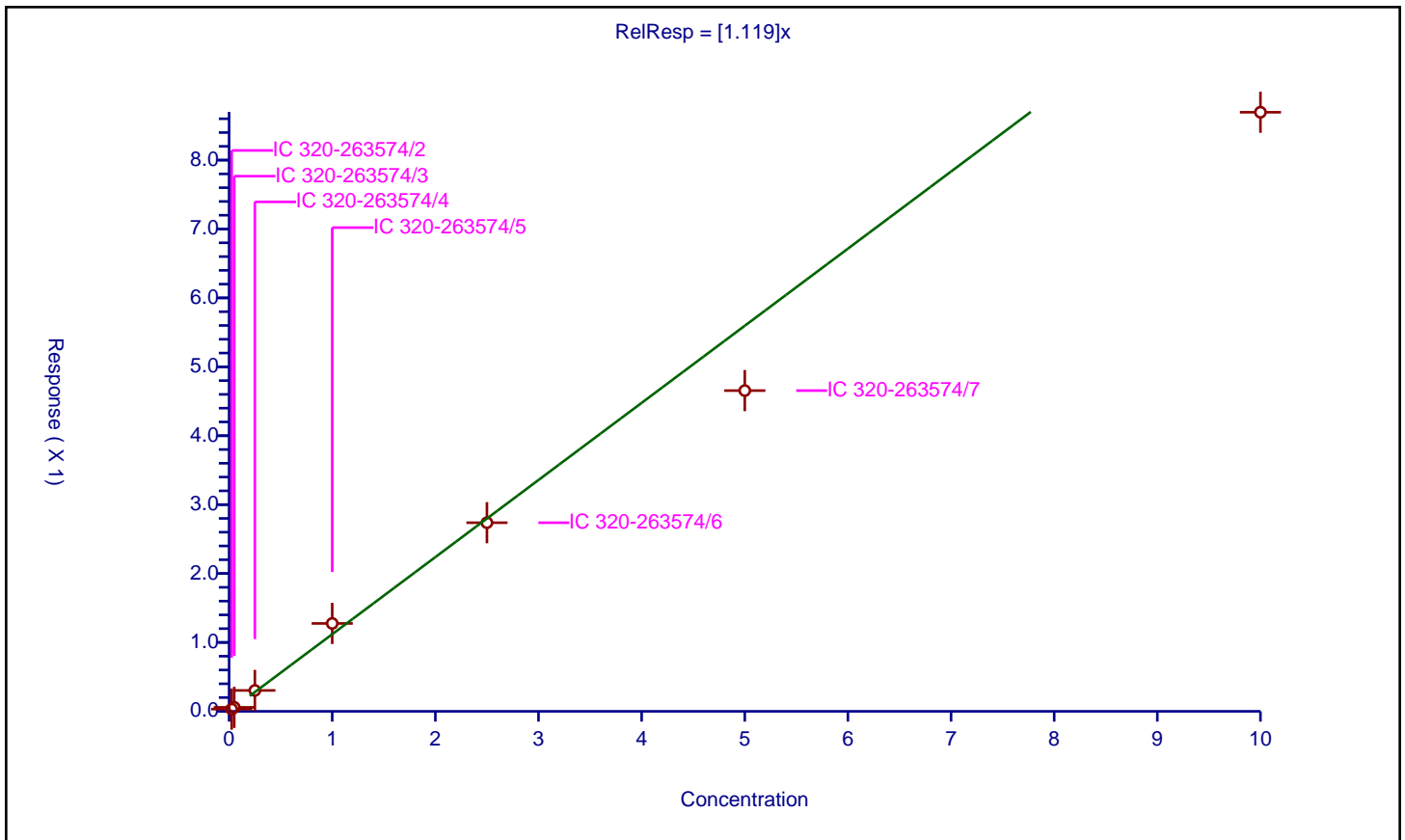
/ Perfluorodecanoic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.119

Error Coefficients	
Standard Error:	12400000
Relative Standard Error:	14.7
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.971

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.032276	2.5	8411234.0	1.291035	Y
2	IC 320-263574/3	0.05	0.057922	2.5	6836989.0	1.158449	Y
3	IC 320-263574/4	0.25	0.303371	2.5	8514345.0	1.213483	Y
4	IC 320-263574/5	1.0	1.27565	2.5	8447125.0	1.27565	Y
5	IC 320-263574/6	2.5	2.737564	2.5	6499495.0	1.095026	Y
6	IC 320-263574/7	5.0	4.654949	2.5	8263075.0	0.93099	Y
7	IC 320-263574/8	10.0	8.694723	2.5	7100956.0	0.869472	Y



Calibration

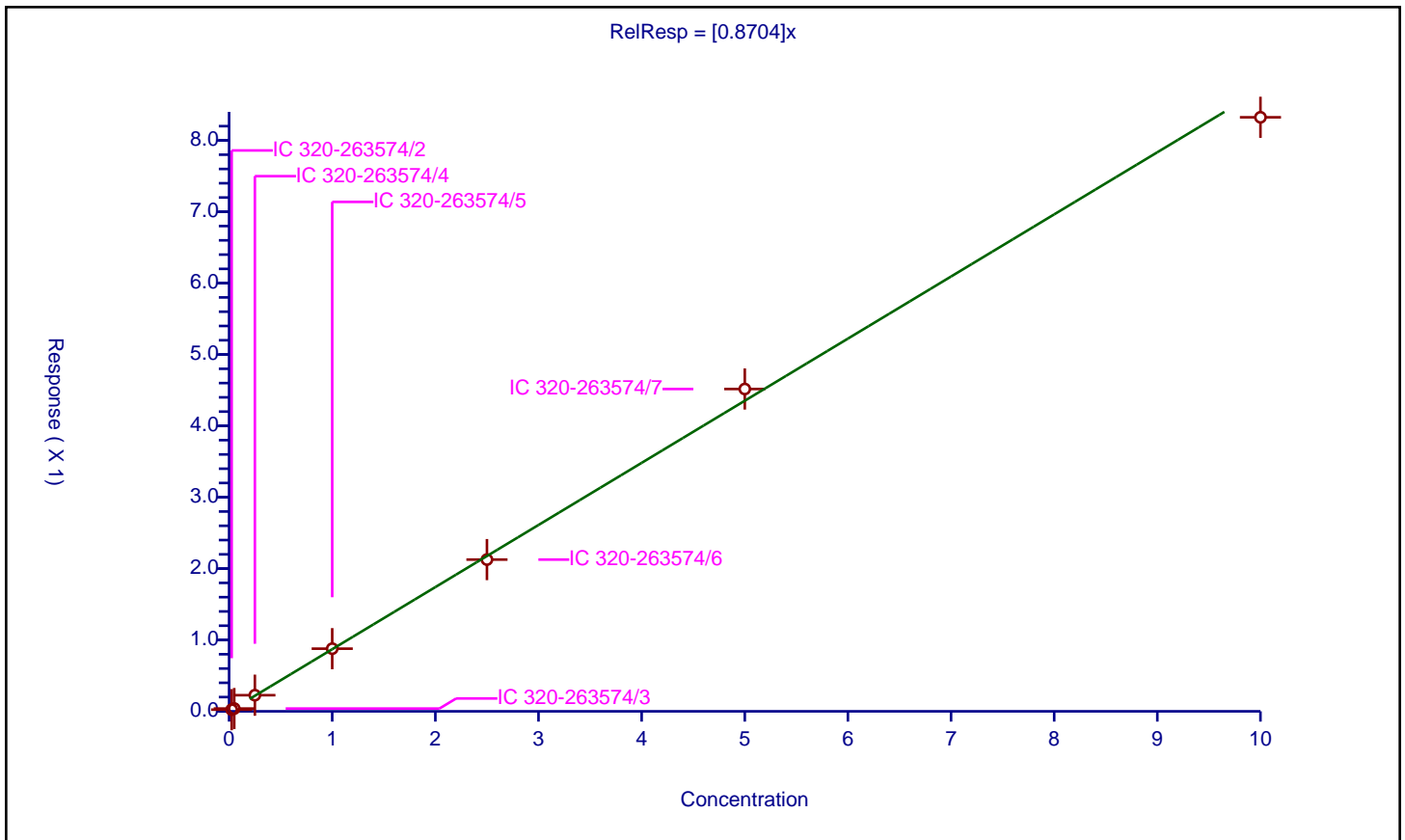
/ N-methylperfluorooctanesulfonamidoacetic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8704

Error Coefficients	
Standard Error:	5510000
Relative Standard Error:	6.2
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.023588	2.5	3629648.0	0.943507	Y
2	IC 320-263574/3	0.05	0.039061	2.5	2969798.0	0.781215	Y
3	IC 320-263574/4	0.25	0.225979	2.5	3517092.0	0.903914	Y
4	IC 320-263574/5	1.0	0.878192	2.5	3745449.0	0.878192	Y
5	IC 320-263574/6	2.5	2.126415	2.5	2945665.0	0.850566	Y
6	IC 320-263574/7	5.0	4.516636	2.5	3611970.0	0.903327	Y
7	IC 320-263574/8	10.0	8.324026	2.5	3442201.0	0.832403	Y



Calibration

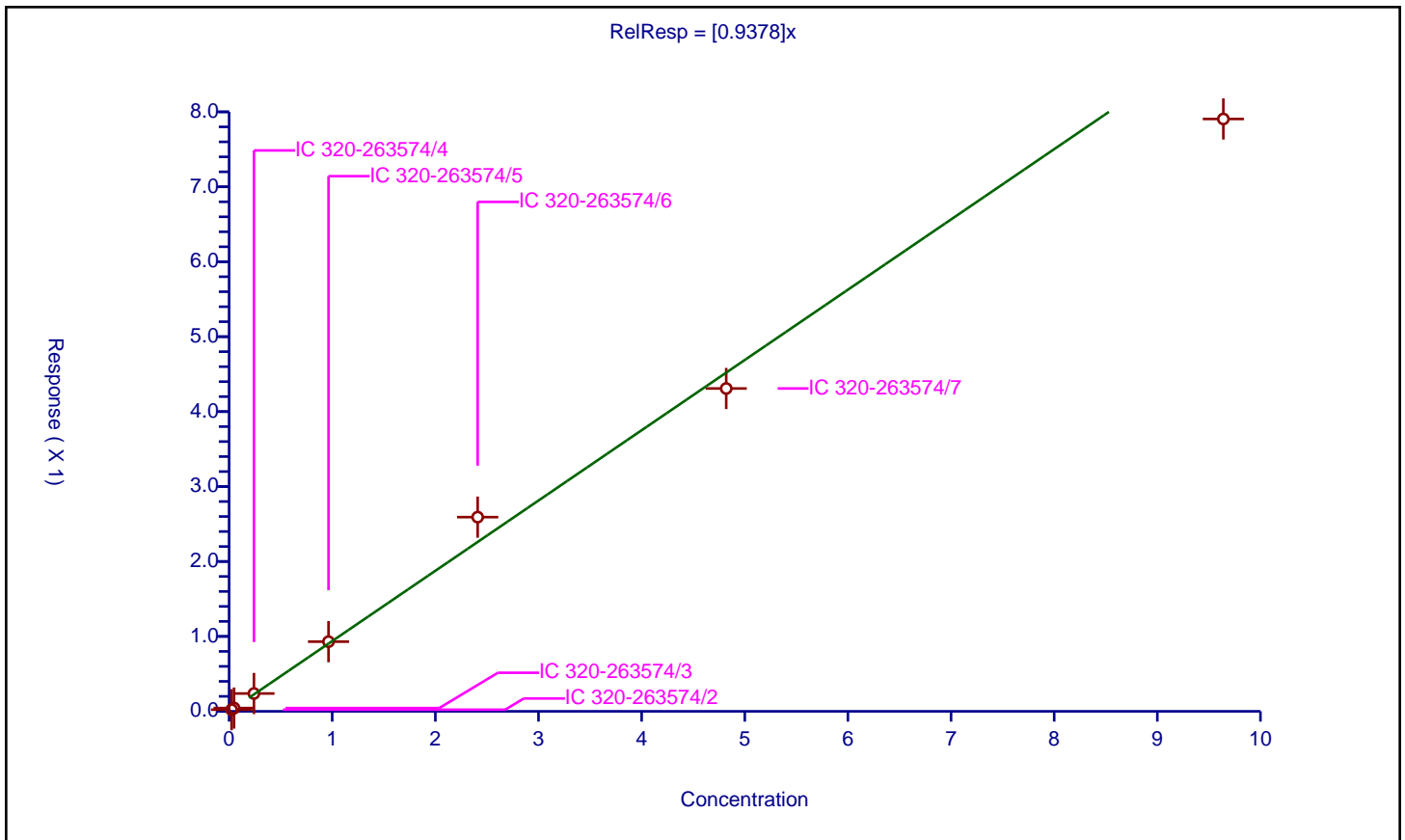
/ Perfluorodecanesulfonic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9378

Error Coefficients	
Standard Error:	8240000
Relative Standard Error:	8.6
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.0241	0.022073	2.39	5767166.0	0.915909	Y
2	IC 320-263574/3	0.0482	0.043738	2.39	4670445.0	0.907437	Y
3	IC 320-263574/4	0.241	0.237931	2.39	5631921.0	0.987267	Y
4	IC 320-263574/5	0.964	0.929864	2.39	5862524.0	0.964589	Y
5	IC 320-263574/6	2.41	2.591925	2.39	4157226.0	1.075488	Y
6	IC 320-263574/7	4.82	4.308431	2.39	5659063.0	0.893865	Y
7	IC 320-263574/8	9.64	7.905379	2.39	5034440.0	0.82006	Y



Calibration

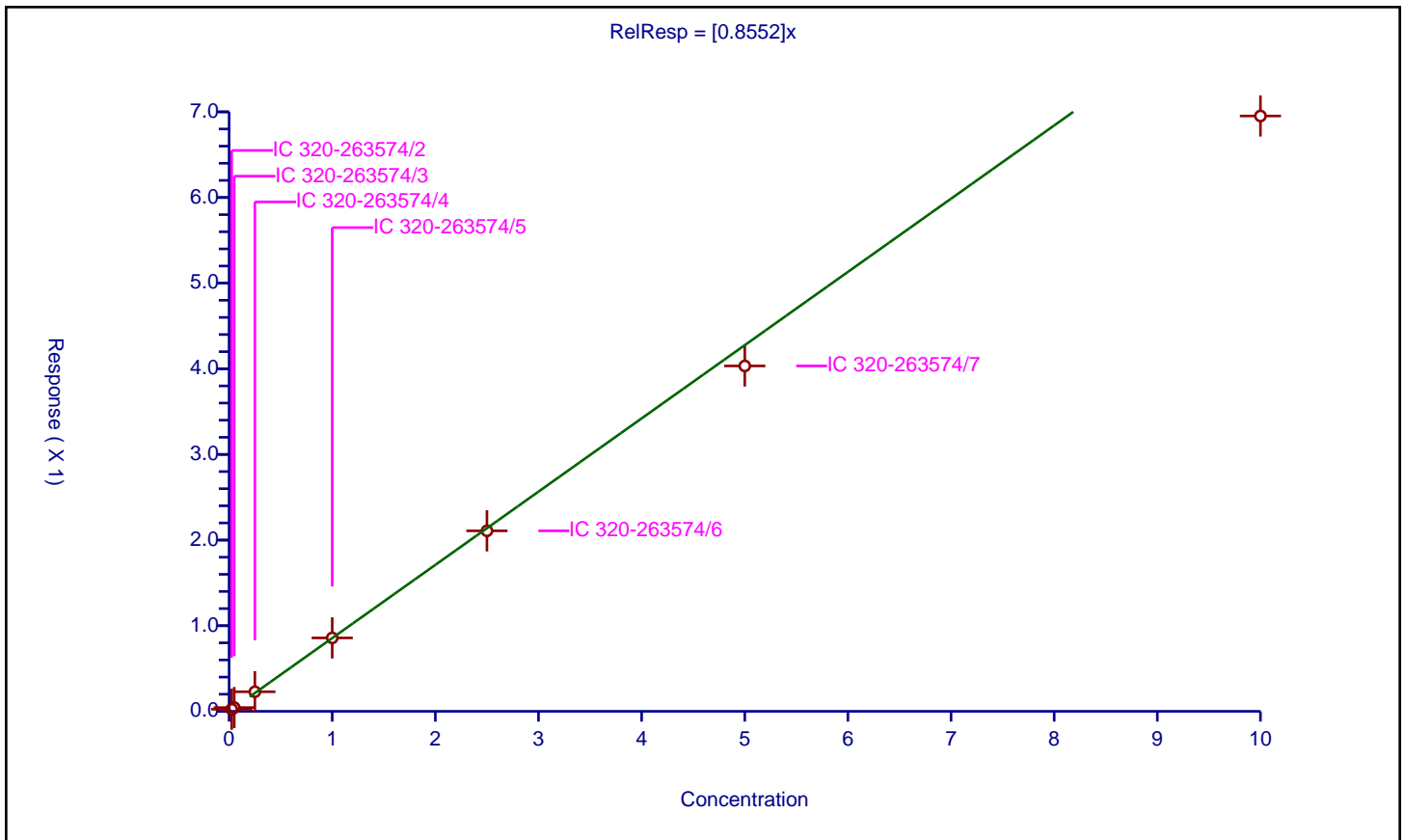
/ Perfluoroundecanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8552

Error Coefficients	
Standard Error:	8730000
Relative Standard Error:	10.7
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.024723	2.5	7282018.0	0.988915	Y
2	IC 320-263574/3	0.05	0.044005	2.5	5763014.0	0.880104	Y
3	IC 320-263574/4	0.25	0.228821	2.5	7090461.0	0.915283	Y
4	IC 320-263574/5	1.0	0.857134	2.5	7612518.0	0.857134	Y
5	IC 320-263574/6	2.5	2.107699	2.5	5824916.0	0.843079	Y
6	IC 320-263574/7	5.0	4.033338	2.5	6942772.0	0.806668	Y
7	IC 320-263574/8	10.0	6.952036	2.5	6232580.0	0.695204	Y



Calibration

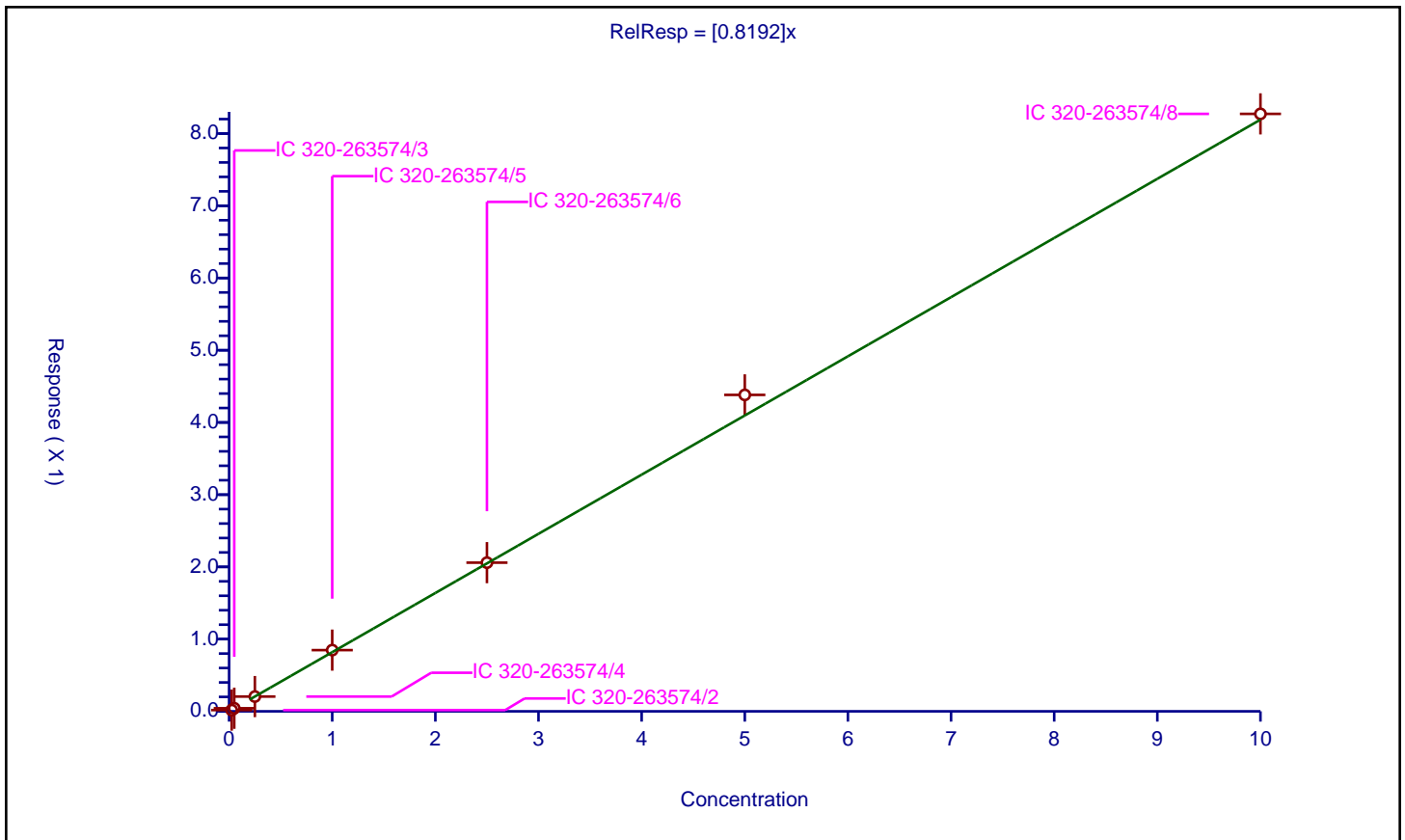
/ N-ethylperfluorooctanesulfonamidoacetic acid

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: IsoDil
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8192

Error Coefficients	
Standard Error:	4270000
Relative Standard Error:	7.4
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.017254	2.5	3096158.0	0.690178	Y
2	IC 320-263574/3	0.05	0.042577	2.5	2437885.0	0.851537	Y
3	IC 320-263574/4	0.25	0.204562	2.5	3300247.0	0.818248	Y
4	IC 320-263574/5	1.0	0.847745	2.5	3127021.0	0.847745	Y
5	IC 320-263574/6	2.5	2.058608	2.5	2556165.0	0.823443	Y
6	IC 320-263574/7	5.0	4.38136	2.5	2943341.0	0.876272	Y
7	IC 320-263574/8	10.0	8.272359	2.5	2655788.0	0.827236	Y



Calibration

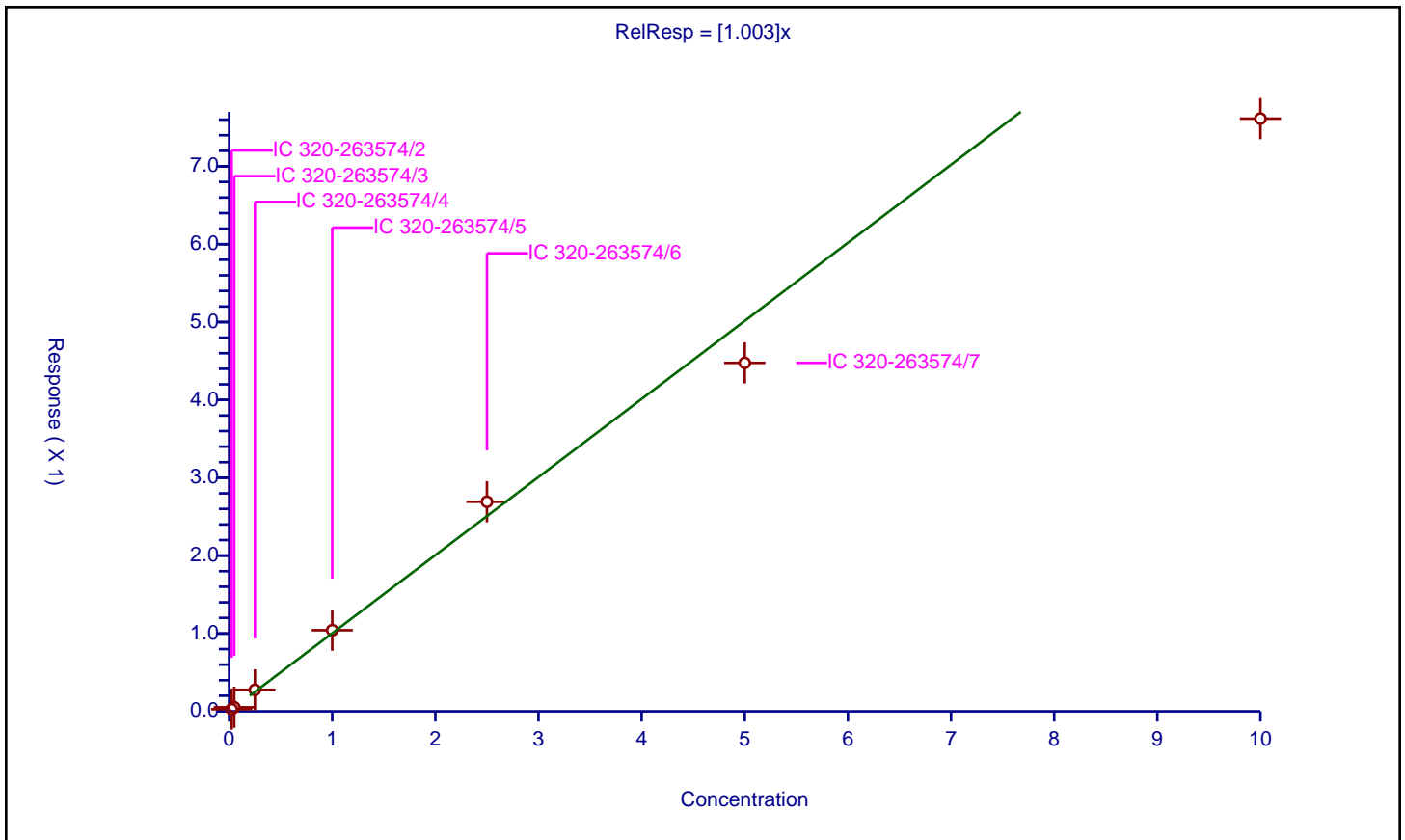
/ Perfluorododecanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.003

Error Coefficients	
Standard Error:	11900000
Relative Standard Error:	12.8
Correlation Coefficient:	0.977
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.027616	2.5	8754800.0	1.104651	Y
2	IC 320-263574/3	0.05	0.051884	2.5	7106702.0	1.037682	Y
3	IC 320-263574/4	0.25	0.275895	2.5	8559039.0	1.103582	Y
4	IC 320-263574/5	1.0	1.042504	2.5	8969509.0	1.042504	Y
5	IC 320-263574/6	2.5	2.691833	2.5	6323862.0	1.076733	Y
6	IC 320-263574/7	5.0	4.475857	2.5	8654978.0	0.895171	Y
7	IC 320-263574/8	10.0	7.613365	2.5	7676158.0	0.761336	Y



Calibration

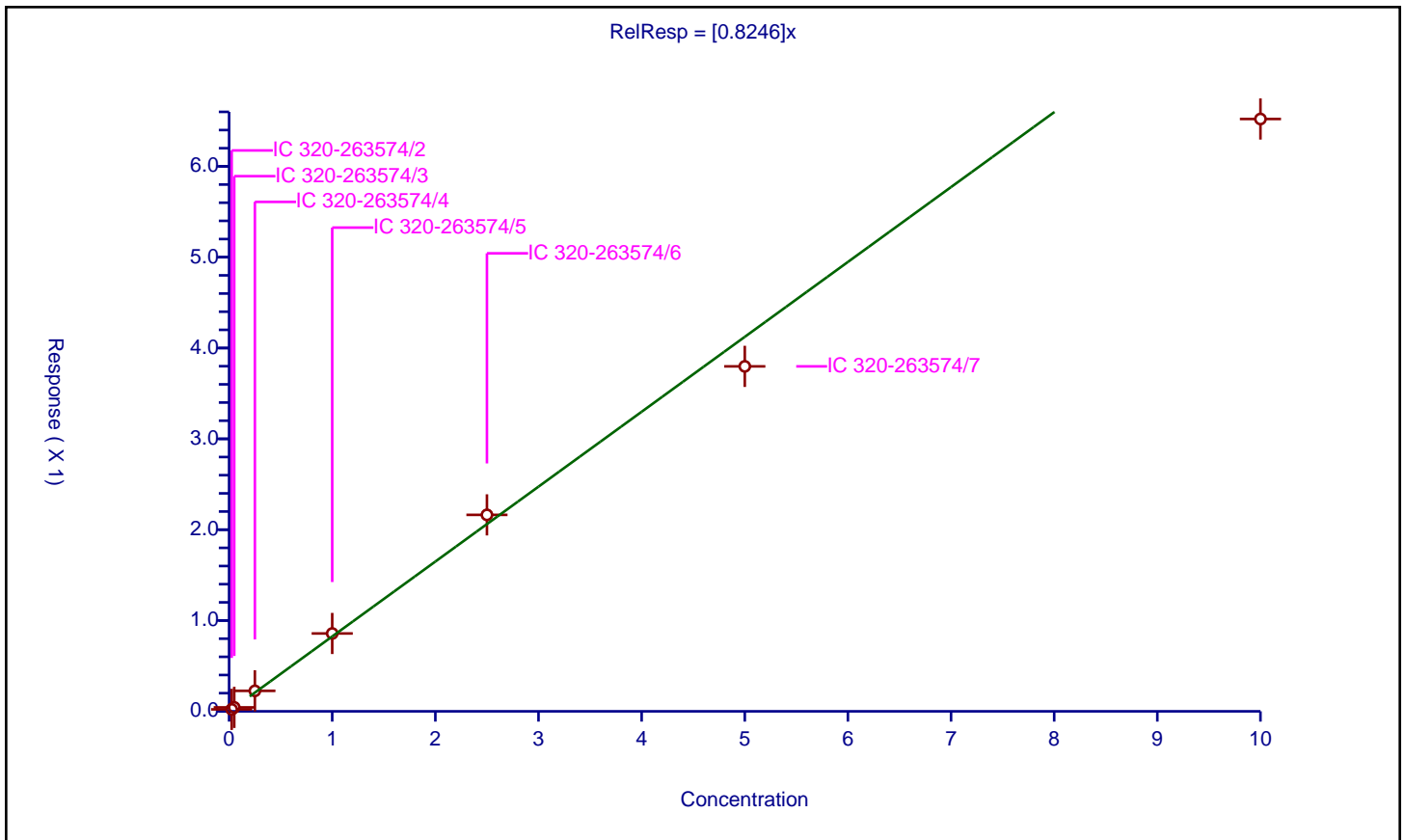
/ Perfluorotridecanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8246

Error Coefficients	
Standard Error:	10100000
Relative Standard Error:	10.7
Correlation Coefficient:	0.979
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.021729	2.5	8754800.0	0.869157	Y
2	IC 320-263574/3	0.05	0.043338	2.5	7106702.0	0.866766	Y
3	IC 320-263574/4	0.25	0.2255	2.5	8559039.0	0.902	Y
4	IC 320-263574/5	1.0	0.85719	2.5	8969509.0	0.85719	Y
5	IC 320-263574/6	2.5	2.163143	2.5	6323862.0	0.865257	Y
6	IC 320-263574/7	5.0	3.798192	2.5	8654978.0	0.759638	Y
7	IC 320-263574/8	10.0	6.521813	2.5	7676158.0	0.652181	Y



Calibration

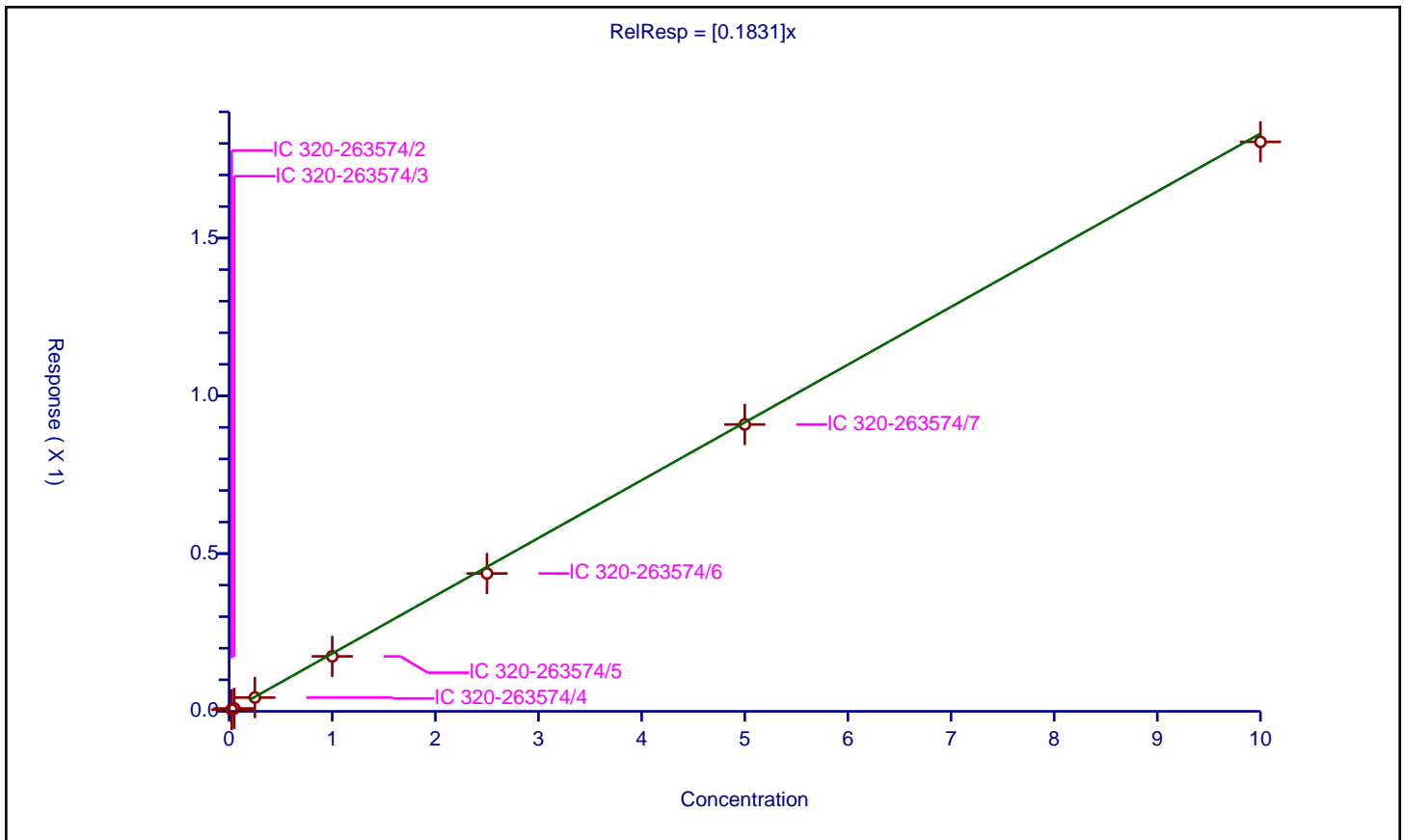
/ Perfluorotetradecanoic acid

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: IsoDil
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1831

Error Coefficients	
Standard Error:	2170000
Relative Standard Error:	7.3
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 320-263574/2	0.025	0.005304	2.5	6793009.0	0.212145	Y
2	IC 320-263574/3	0.05	0.009177	2.5	5427444.0	0.183549	Y
3	IC 320-263574/4	0.25	0.043717	2.5	6927320.0	0.17487	Y
4	IC 320-263574/5	1.0	0.174241	2.5	7130191.0	0.174241	Y
5	IC 320-263574/6	2.5	0.436946	2.5	5214966.0	0.174778	Y
6	IC 320-263574/7	5.0	0.909123	2.5	6849299.0	0.181825	Y
7	IC 320-263574/8	10.0	1.805004	2.5	6336537.0	0.1805	Y



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: ICV 320-263574/10 Calibration Date: 12/07/2018 04:11
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.06ICALB_010.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9696	0.9689		2.50	2.50	-0.0	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.043	1.007		2.41	2.50	-3.4	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.998	1.014		2.25	2.21	1.6	30.0
4:2 FTS	AveID	0.1728	0.1659		2.24	2.34	-4.0	30.0
Perfluorohexanoic acid (PFHxA)	AveID	0.8816	0.8911		2.53	2.50	1.1	30.0
Perfluoropentanesulfonic acid	AveID	0.4889	0.5016		2.41	2.35	2.6	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.083	1.033		2.39	2.50	-4.5	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.234	1.153		2.13	2.28	-6.6	30.0
6:2 FTS	AveID	2.119	2.198		2.46	2.38	3.7	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.066	1.079		2.40	2.38	1.2	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.024	1.052		2.57	2.50	2.7	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.076	1.082		2.33	2.31	0.5	30.0
Perfluorononanoic acid (PFNA)	AveID	1.009	1.001		2.48	2.50	-0.9	30.0
Perfluorononanesulfonic acid	AveID	0.6567	0.6863		2.51	2.40	4.5	30.0
Perfluorooctanesulfonamide (PFOSA)	AveID	2.912	3.050		2.62	2.50	4.7	30.0
8:2 FTS	AveID	14.12	12.73		2.16	2.40	-9.8	30.0
Perfluorodecanoic acid (PFDA)	AveID	1.119	1.134		2.53	2.50	1.3	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8704	1.074		3.08	2.50	23.3	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.9378	0.9611		2.47	2.41	2.5	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8552	0.8486		2.48	2.50	-0.8	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8192	0.9775		2.98	2.50	19.3	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.003	0.9930		2.47	2.50	-1.0	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8246	0.8394		2.54	2.50	1.8	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1831	0.1755		2.40	2.50	-4.1	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9275		2.66	2.50	6.4	30.0
13C4 PFBA	Ave	0.9539	0.9790		2.57	2.50	2.6	30.0
13C5 PFPeA	Ave	0.8142	0.8498		2.61	2.50	4.4	30.0
13C3 PFBS	Ave	1.157	1.178		2.37	2.33	1.8	30.0
13C2 PFHxA	Ave	0.8990	0.9130		2.54	2.50	1.6	30.0
13C4 PFHpA	Ave	1.089	1.142		2.62	2.50	4.9	30.0
18O2 PFHxS	Ave	0.6917	0.7093		2.43	2.37	2.6	30.0
M2-6:2 FTS	Ave	0.0861	0.0853		2.35	2.38	-0.9	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: ICV 320-263574/10 Calibration Date: 12/07/2018 04:11
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.06ICALB_010.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9895	0.9737		2.46	2.50	-1.6	30.0
13C4 PFOS	Ave	0.6814	0.7050		2.47	2.39	3.5	30.0
13C5 PFNA	Ave	0.9142	0.9478		2.59	2.50	3.7	30.0
13C8 FOSA	Ave	0.4374	0.4336		2.48	2.50	-0.9	30.0
13C2 PFDA	Ave	0.9588	0.9443		2.46	2.50	-1.5	30.0
M2-8:2 FTS	Ave	0.0113	0.0117		2.46	2.40	2.9	30.0
d3-NMeFOSAA	Ave	0.4238	0.4135		2.44	2.50	-2.5	30.0
13C2 PFUnA	Ave	0.8293	0.8316		2.51	2.50	0.3	30.0
d5-NEtFOSAA	Ave	0.3569	0.3549		2.49	2.50	-0.6	30.0
13C2 PFDoA	Ave	0.9925	1.037		2.61	2.50	4.5	30.0
13C2 PFTeDA	Ave	0.7914	0.8066		2.55	2.50	1.9	30.0
13C2 PFHxDA	Ave	0.7892	0.7956		2.52	2.50	0.8	30.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Instrument ID: A9 Start Date: 12/14/2018 17:54

Analysis Batch Number: 265165 End Date: 12/14/2018 20:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 320-265165/1		12/14/2018 17:54	1	2018.12.14LLB_04.d	Acquity 2.1(mm)
CCVL 320-265165/2		12/14/2018 18:02	1	2018.12.14LLB_05.d	Acquity 2.1(mm)
CCV 320-265165/3 CCVIS		12/14/2018 18:09	1	2018.12.14LLE_06.d	Acquity 2.1(mm)
MB 320-264671/1-A		12/14/2018 18:17	1	2018.12.14LLE_07.d	Acquity 2.1(mm)
LCS 320-264671/2-A		12/14/2018 18:24	1	2018.12.14LLE_08.d	Acquity 2.1(mm)
ZZZZZ		12/14/2018 18:32	1		Acquity 2.1(mm)
320-44773-1 RE		12/14/2018 18:39	1	2018.12.14LLE_10.d	Acquity 2.1(mm)
320-44773-2 RE		12/14/2018 18:47	1	2018.12.14LLE_11.d	Acquity 2.1(mm)
320-44773-3 RE		12/14/2018 18:55	1	2018.12.14LLE_12.d	Acquity 2.1(mm)
320-44773-4 RE		12/14/2018 19:02	1	2018.12.14LLE_13.d	Acquity 2.1(mm)
320-44773-5 RE		12/14/2018 19:10	1	2018.12.14LLE_14.d	Acquity 2.1(mm)
320-44773-6 RE		12/14/2018 19:17	1	2018.12.14LLE_15.d	Acquity 2.1(mm)
320-44773-7 RE		12/14/2018 19:25	1	2018.12.14LLE_16.d	Acquity 2.1(mm)
CCV 320-265165/14		12/14/2018 19:32	1	2018.12.14LLE_17.d	Acquity 2.1(mm)
320-44773-8 RE		12/14/2018 19:40	1	2018.12.14LLE_18.d	Acquity 2.1(mm)
320-44773-9 RE		12/14/2018 19:47	1	2018.12.14LLE_19.d	Acquity 2.1(mm)
320-44773-10 RE		12/14/2018 19:55	1	2018.12.14LLE_20.d	Acquity 2.1(mm)
ZZZZZ		12/14/2018 20:02	1		Acquity 2.1(mm)
CCV 320-265165/19		12/14/2018 20:10	1	2018.12.14LLE_22.d	Acquity 2.1(mm)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCVL 320-265165/2 Calibration Date: 12/14/2018 18:02
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.14LLB_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9696	0.8984		0.0463	0.0500	-7.4	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.043	1.023		0.0491	0.0500	-1.9	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.998	0.9148		0.0405	0.0442	-8.3	30.0
4:2 FTS	AveID	0.1728	0.1549		0.418	0.467	-10.4	30.0
Perfluorohexanoic acid (PFHxA)	AveID	0.8816	0.8719		0.0495	0.0500	-1.1	30.0
Perfluoropentanesulfonic acid	AveID	0.4889	0.4411		0.0423	0.0469	-9.8	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.083	1.158		0.0535	0.0500	7.0	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.234	1.285		0.0474	0.0455	4.1	30.0
6:2 FTS	AveID	2.119	2.412		0.539	0.474	13.8	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.066	1.010		0.0451	0.0476	-5.3	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.024	1.165		0.0569	0.0501	13.7	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.076	1.043		0.0449	0.0464	-3.1	30.0
Perfluorononanoic acid (PFNA)	AveID	1.009	1.016		0.0503	0.0500	0.7	30.0
Perfluorononanesulfonic acid	AveID	0.6567	0.6462		0.0472	0.0480	-1.6	30.0
Perfluorooctanesulfonamide (PFOSA)	AveID	2.912	3.084		0.0529	0.0500	5.9	30.0
Perfluorodecanoic acid (PFDA)	AveID	1.119	1.214		0.0542	0.0500	8.4	30.0
8:2 FTS	AveID	14.12	15.12		0.513	0.479	7.1	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8704	0.8139		0.468	0.500	-6.5	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.9378	0.9344		0.0480	0.0482	-0.4	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8552	0.9355		0.0547	0.0500	9.4	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8192	0.8478		0.517	0.500	3.5	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.003	1.050		0.0523	0.0500	4.6	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8246	0.9062		0.0549	0.0500	9.9	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1831	0.1747		0.0477	0.0500	-4.6	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.388		0.0480	0.0500	-3.9	30.0
13C4 PFBA	Ave	0.9539	0.9419		2.47	2.50	-1.3	30.0
13C5 PFPeA	Ave	0.8142	0.8349		2.56	2.50	2.5	30.0
13C3 PFBS	Ave	1.157	1.216		2.44	2.33	5.1	30.0
13C2 PFHxA	Ave	0.8990	0.9121		2.54	2.50	1.5	30.0
13C4 PFHpA	Ave	1.089	1.085		2.49	2.50	-0.3	30.0
18O2 PFHxS	Ave	0.6917	0.6807		2.33	2.37	-1.6	30.0
M2-6:2 FTS	Ave	0.0861	0.0758		2.09	2.38	-11.9	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCVL 320-265165/2 Calibration Date: 12/14/2018 18:02
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.14LLB_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9895	1.017		2.57	2.50	2.8	30.0
13C4 PFOS	Ave	0.6814	0.7060		2.48	2.39	3.6	30.0
13C5 PFNA	Ave	0.9142	0.9390		2.57	2.50	2.7	30.0
13C8 FOSA	Ave	0.4374	0.4280		2.45	2.50	-2.1	30.0
13C2 PFDA	Ave	0.9588	0.9742		2.54	2.50	1.6	30.0
M2-8:2 FTS	Ave	0.0113	0.0108		2.27	2.40	-5.2	30.0
d3-NMeFOSAA	Ave	0.4238	0.4063		2.40	2.50	-4.1	30.0
13C2 PFUnA	Ave	0.8293	0.7783		2.35	2.50	-6.2	30.0
d5-NEtFOSAA	Ave	0.3569	0.3506		2.46	2.50	-1.8	30.0
13C2 PFDoA	Ave	0.9925	0.9698		2.44	2.50	-2.3	30.0
13C2 PFTeDA	Ave	0.7914	0.7933		2.51	2.50	0.2	30.0
13C2 PFHxDA	Ave	0.7892	0.7573		2.40	2.50	-4.0	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265165/3 Calibration Date: 12/14/2018 18:09
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.14LLE_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9696	0.9122		0.941	1.00	-5.9	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.043	0.9795		0.939	1.00	-6.1	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.998	0.9612		0.852	0.884	-3.6	30.0
4:2 FTS	AveID	0.1728	0.1584		0.856	0.934	-8.3	30.0
Perfluorohexanoic acid (PFHxA)	AveID	0.8816	0.8561		0.971	1.00	-2.9	30.0
Perfluoropentanesulfonic acid	AveID	0.4889	0.4778		0.917	0.938	-2.3	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.083	1.005		0.928	1.00	-7.2	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.234	1.137		0.838	0.910	-7.9	30.0
6:2 FTS	AveID	2.119	1.974		0.883	0.948	-6.9	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.066	1.098		0.980	0.952	3.0	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.024	1.021		0.998	1.00	-0.3	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.076	1.029		0.887	0.928	-4.4	30.0
Perfluorononanoic acid (PFNA)	AveID	1.009	0.9221		0.914	1.00	-8.6	30.0
Perfluorononanesulfonic acid	AveID	0.6567	0.6705		0.980	0.960	2.1	30.0
Perfluorooctanesulfonamide (PFOSA)	AveID	2.912	3.327		1.14	1.00	14.2	30.0
8:2 FTS	AveID	14.12	13.52		0.917	0.958	-4.3	30.0
Perfluorodecanoic acid (PFDA)	AveID	1.119	1.110		0.992	1.00	-0.8	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8704	0.8156		0.937	1.00	-6.3	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.9378	0.9867		1.01	0.964	5.2	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8552	0.7951		0.930	1.00	-7.0	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8192	0.7539		0.920	1.00	-8.0	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.003	0.996		0.993	1.00	-0.7	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8246	0.8613		1.04	1.00	4.5	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1831	0.1555		0.849	1.00	-15.1	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9591		1.08	1.00	8.1	30.0
13C4 PFBA	Ave	0.9539	0.9432		2.47	2.50	-1.1	30.0
13C5 PFPeA	Ave	0.8142	0.8285		2.54	2.50	1.8	30.0
13C3 PFBS	Ave	1.157	1.149		2.31	2.33	-0.7	30.0
13C2 PFHxA	Ave	0.8990	0.8978		2.50	2.50	-0.1	30.0
13C4 PFHpA	Ave	1.089	1.095		2.51	2.50	0.6	30.0
18O2 PFHxS	Ave	0.6917	0.7110		2.43	2.37	2.8	30.0
M2-6:2 FTS	Ave	0.0861	0.0772		2.13	2.38	-10.3	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265165/3 Calibration Date: 12/14/2018 18:09
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.14LLE_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9895	0.9914		2.50	2.50	0.2	30.0
13C4 PFOS	Ave	0.6814	0.6733		2.36	2.39	-1.2	30.0
13C5 PFNA	Ave	0.9142	0.9366		2.56	2.50	2.4	30.0
13C8 FOSA	Ave	0.4374	0.4104		2.35	2.50	-6.2	30.0
13C2 PFDA	Ave	0.9588	0.9257		2.41	2.50	-3.5	30.0
M2-8:2 FTS	Ave	0.0113	0.0104		2.19	2.40	-8.5	30.0
d3-NMeFOSAA	Ave	0.4238	0.3946		2.33	2.50	-6.9	30.0
13C2 PFUnA	Ave	0.8293	0.8049		2.43	2.50	-2.9	30.0
d5-NEtFOSAA	Ave	0.3569	0.3575		2.50	2.50	0.2	30.0
13C2 PFDoA	Ave	0.9925	0.9752		2.46	2.50	-1.7	30.0
13C2 PFTeDA	Ave	0.7914	0.8148		2.57	2.50	3.0	30.0
13C2 PFHxDA	Ave	0.7892	0.8055		2.55	2.50	2.1	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265165/14 Calibration Date: 12/14/2018 19:32
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.14LLE_017.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9696	0.9088		2.34	2.50	-6.3	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.043	0.9771		2.34	2.50	-6.3	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.998	0.9368		2.08	2.21	-6.1	30.0
4:2 FTS	AveID	0.1728	0.1491		2.01	2.34	-13.7	30.0
Perfluorohexanoic acid (PFHxA)	AveID	0.8816	0.8525		2.42	2.50	-3.3	30.0
Perfluoropentanesulfonic acid	AveID	0.4889	0.4671		2.24	2.35	-4.5	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.083	0.9687		2.24	2.50	-10.5	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.234	1.170		2.16	2.28	-5.2	30.0
6:2 FTS	AveID	2.119	2.211		2.47	2.37	4.3	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.066	1.042		2.33	2.38	-2.3	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.024	0.9652		2.36	2.50	-5.8	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.076	1.020		2.20	2.32	-5.2	30.0
Perfluorononanoic acid (PFNA)	AveID	1.009	0.9168		2.27	2.50	-9.2	30.0
Perfluorononanesulfonic acid	AveID	0.6567	0.6468		2.36	2.40	-1.5	30.0
Perfluorooctanesulfonamide (PFOSA)	AveID	2.912	2.917		2.50	2.50	0.1	30.0
8:2 FTS	AveID	14.12	13.81		2.34	2.40	-2.2	30.0
Perfluorodecanoic acid (PFDA)	AveID	1.119	1.012		2.26	2.50	-9.6	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8704	0.7706		2.21	2.50	-11.5	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.9378	0.8889		2.28	2.41	-5.2	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8552	0.8107		2.37	2.50	-5.2	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8192	0.7928		2.42	2.50	-3.2	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.003	0.9126		2.27	2.50	-9.0	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8246	0.8156		2.47	2.50	-1.1	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1831	0.1506		2.06	2.50	-17.7	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8845		2.53	2.50	1.4	30.0
13C4 PFBA	Ave	0.9539	0.9525		2.50	2.50	-0.2	30.0
13C5 PFPeA	Ave	0.8142	0.8177		2.51	2.50	0.4	30.0
13C3 PFBS	Ave	1.157	1.145		2.30	2.33	-1.1	30.0
13C2 PFHxA	Ave	0.8990	0.8688		2.42	2.50	-3.4	30.0
13C4 PFHpA	Ave	1.089	1.064		2.44	2.50	-2.3	30.0
18O2 PFHxS	Ave	0.6917	0.6488		2.22	2.37	-6.2	30.0
M2-6:2 FTS	Ave	0.0861	0.0759		2.09	2.38	-11.8	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265165/14 Calibration Date: 12/14/2018 19:32
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.14LLE_017.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9895	0.9938		2.51	2.50	0.4	30.0
13C4 PFOS	Ave	0.6814	0.6887		2.42	2.39	1.1	30.0
13C5 PFNA	Ave	0.9142	0.8934		2.44	2.50	-2.3	30.0
13C8 FOSA	Ave	0.4374	0.3957		2.26	2.50	-9.5	30.0
13C2 PFDA	Ave	0.9588	0.9254		2.41	2.50	-3.5	30.0
M2-8:2 FTS	Ave	0.0113	0.0099		2.10	2.40	-12.4	30.0
d3-NMeFOSAA	Ave	0.4238	0.4050		2.39	2.50	-4.4	30.0
13C2 PFUnA	Ave	0.8293	0.7676		2.31	2.50	-7.4	30.0
d5-NEtFOSAA	Ave	0.3569	0.3380		2.37	2.50	-5.3	30.0
13C2 PFDoA	Ave	0.9925	0.9449		2.38	2.50	-4.8	30.0
13C2 PFTeDA	Ave	0.7914	0.7841		2.48	2.50	-0.9	30.0
13C2 PFHxDA	Ave	0.7892	0.7545		2.39	2.50	-4.4	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265165/19 Calibration Date: 12/14/2018 20:10
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.14LLE_022.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9696	0.9207		0.949	1.00	-5.1	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.043	0.9898		0.949	1.00	-5.1	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.998	0.9703		0.860	0.884	-2.7	30.0
4:2 FTS	AveID	0.1728	0.1650		0.892	0.934	-4.5	30.0
Perfluorohexanoic acid (PFHxA)	AveID	0.8816	0.8405		0.953	1.00	-4.7	30.0
Perfluoropentanesulfonic acid	AveID	0.4889	0.4724		0.906	0.938	-3.4	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.083	1.028		0.949	1.00	-5.1	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.234	1.119		0.825	0.910	-9.4	30.0
6:2 FTS	AveID	2.119	2.099		0.939	0.948	-1.0	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.066	1.001		0.894	0.952	-6.1	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.024	1.063		1.04	1.00	3.8	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.076	1.009		0.870	0.928	-6.3	30.0
Perfluorononanoic acid (PFNA)	AveID	1.009	0.9642		0.955	1.00	-4.5	30.0
Perfluorononanesulfonic acid	AveID	0.6567	0.6564		0.959	0.960	-0.0	30.0
Perfluorooctanesulfonamide (PFOSA)	AveID	2.912	3.247		1.11	1.00	11.5	30.0
8:2 FTS	AveID	14.12	13.92		0.944	0.958	-1.4	30.0
Perfluorodecanoic acid (PFDA)	AveID	1.119	1.121		1.00	1.00	0.2	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8704	0.8301		0.954	1.00	-4.6	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.9378	0.9909		1.02	0.964	5.7	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8552	0.7880		0.921	1.00	-7.9	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8192	0.7720		0.942	1.00	-5.8	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.003	0.9816		0.979	1.00	-2.1	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8246	0.8409		1.02	1.00	2.0	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1831	0.1542		0.842	1.00	-15.8	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9262		1.04	1.00	4.3	30.0
13C4 PFBA	Ave	0.9539	0.9518		2.49	2.50	-0.2	30.0
13C5 PFPeA	Ave	0.8142	0.8087		2.48	2.50	-0.7	30.0
13C3 PFBS	Ave	1.157	1.170		2.35	2.33	1.1	30.0
13C2 PFHxA	Ave	0.8990	0.9295		2.58	2.50	3.4	30.0
13C4 PFHpA	Ave	1.089	1.064		2.44	2.50	-2.2	30.0
18O2 PFHxS	Ave	0.6917	0.6934		2.37	2.37	0.3	30.0
M2-6:2 FTS	Ave	0.0861	0.0814		2.25	2.38	-5.4	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265165/19 Calibration Date: 12/14/2018 20:10
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.14LLE_022.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9895	1.006		2.54	2.50	1.6	30.0
13C4 PFOS	Ave	0.6814	0.7284		2.55	2.39	6.9	30.0
13C5 PFNA	Ave	0.9142	0.9301		2.54	2.50	1.7	30.0
13C8 FOSA	Ave	0.4374	0.4238		2.42	2.50	-3.1	30.0
13C2 PFDA	Ave	0.9588	0.9643		2.51	2.50	0.6	30.0
M2-8:2 FTS	Ave	0.0113	0.0106		2.24	2.40	-6.5	30.0
d3-NMeFOSAA	Ave	0.4238	0.4223		2.49	2.50	-0.4	30.0
13C2 PFUnA	Ave	0.8293	0.8285		2.50	2.50	-0.1	30.0
d5-NEtFOSAA	Ave	0.3569	0.3656		2.56	2.50	2.4	30.0
13C2 PFDoA	Ave	0.9925	1.006		2.53	2.50	1.4	30.0
13C2 PFTeDA	Ave	0.7914	0.8401		2.65	2.50	6.1	30.0
13C2 PFHxDA	Ave	0.7892	0.8504		2.69	2.50	7.8	30.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Instrument ID: A9 Start Date: 12/15/2018 19:12

Analysis Batch Number: 265586 End Date: 12/15/2018 22:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 320-265586/1		12/15/2018 19:12	1	2018.12.15LLC_004.d	Acquity 2.1(mm)
CCVL 320-265586/2		12/15/2018 19:19	1	2018.12.15LLC_005.d	Acquity 2.1(mm)
CCV 320-265586/3 CCVIS		12/15/2018 19:27	1	2018.12.15LLC_006.d	Acquity 2.1(mm)
CCV 320-265586/12		12/15/2018 22:57	1		Acquity 2.1(mm)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCVL 320-265586/2 Calibration Date: 12/15/2018 19:19
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.15LLC_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9696	0.8603		0.0444	0.0500	-11.3	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.043	0.9845		0.0472	0.0500	-5.6	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.998	0.9193		0.0407	0.0442	-7.8	30.0
4:2 FTS	AveID	0.1728	0.1537		0.415	0.467	-11.1	30.0
Perfluorohexanoic acid (PFHxA)	AveID	0.8816	0.8962		0.0508	0.0500	1.7	30.0
Perfluoropentanesulfonic acid	AveID	0.4889	0.4945		0.0474	0.0469	1.1	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.083	1.142		0.0527	0.0500	5.5	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.234	1.240		0.0457	0.0455	0.4	30.0
6:2 FTS	AveID	2.119	2.162		0.483	0.474	2.0	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.066	1.036		0.0462	0.0476	-2.8	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.024	1.167		0.0570	0.0501	13.9	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.076	1.044		0.0450	0.0464	-3.0	30.0
Perfluorononanoic acid (PFNA)	AveID	1.009	0.9524		0.0472	0.0500	-5.7	30.0
Perfluorononanesulfonic acid	AveID	0.6567	0.6330		0.0463	0.0480	-3.6	30.0
Perfluorooctanesulfonamide (PFOSA)	AveID	2.912	2.726		0.0468	0.0500	-6.4	30.0
8:2 FTS	AveID	14.12	15.01		0.509	0.479	6.3	30.0
Perfluorodecanoic acid (PFDA)	AveID	1.119	1.307		0.0584	0.0500	16.8	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8704	0.8570		0.492	0.500	-1.6	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.9378	1.001		0.0514	0.0482	6.7	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8552	0.9676		0.0566	0.0500	13.1	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8192	0.8215		0.501	0.500	0.3	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.003	1.045		0.0521	0.0500	4.2	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8246	0.8917		0.0541	0.0500	8.1	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1831	0.1838		0.0502	0.0500	0.4	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.323		0.0443	0.0500	-11.4	30.0
13C4 PFBA	Ave	0.9539	0.9491		2.49	2.50	-0.5	30.0
13C5 PFPeA	Ave	0.8142	0.8212		2.52	2.50	0.9	30.0
13C3 PFBS	Ave	1.157	1.159		2.33	2.33	0.2	30.0
13C2 PFHxA	Ave	0.8990	0.9007		2.50	2.50	0.2	30.0
13C4 PFHpA	Ave	1.089	1.103		2.53	2.50	1.3	30.0
18O2 PFHxS	Ave	0.6917	0.7322		2.50	2.37	5.9	30.0
M2-6:2 FTS	Ave	0.0861	0.0810		2.24	2.38	-5.9	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCVL 320-265586/2 Calibration Date: 12/15/2018 19:19
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.15LLC_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9895	1.016		2.57	2.50	2.7	30.0
13C4 PFOS	Ave	0.6814	0.7269		2.55	2.39	6.7	30.0
13C5 PFNA	Ave	0.9142	0.9507		2.60	2.50	4.0	30.0
13C8 FOSA	Ave	0.4374	0.4694		2.68	2.50	7.3	30.0
13C2 PFDA	Ave	0.9588	0.9777		2.55	2.50	2.0	30.0
M2-8:2 FTS	Ave	0.0113	0.0108		2.27	2.40	-5.0	30.0
d3-NMeFOSAA	Ave	0.4238	0.4059		2.39	2.50	-4.2	30.0
13C2 PFUnA	Ave	0.8293	0.8361		2.52	2.50	0.8	30.0
d5-NEtFOSAA	Ave	0.3569	0.3635		2.55	2.50	1.9	30.0
13C2 PFDoA	Ave	0.9925	1.028		2.59	2.50	3.6	30.0
13C2 PFTeDA	Ave	0.7914	0.8179		2.58	2.50	3.3	30.0
13C2 PFHxDA	Ave	0.7892	0.8443		2.67	2.50	7.0	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265586/3 Calibration Date: 12/15/2018 19:27
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.15LLC_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9696	0.8961		0.924	1.00	-7.6	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.043	0.9723		0.932	1.00	-6.8	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.998	0.9282		0.823	0.884	-6.9	30.0
4:2 FTS	AveID	0.1728	0.1462		0.790	0.934	-15.4	30.0
Perfluorohexanoic acid (PFHxA)	AveID	0.8816	0.8437		0.957	1.00	-4.3	30.0
Perfluoropentanesulfonic acid	AveID	0.4889	0.4740		0.909	0.938	-3.1	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.083	0.9747		0.900	1.00	-10.0	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.234	1.156		0.852	0.910	-6.4	30.0
6:2 FTS	AveID	2.119	2.183		0.977	0.948	3.0	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.066	1.016		0.907	0.952	-4.7	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.024	0.9750		0.952	1.00	-4.8	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.076	0.9825		0.847	0.928	-8.7	30.0
Perfluorononanoic acid (PFNA)	AveID	1.009	0.9820		0.973	1.00	-2.7	30.0
Perfluorononanesulfonic acid	AveID	0.6567	0.6070		0.887	0.960	-7.6	30.0
Perfluorooctanesulfonamide (PFOSA)	AveID	2.912	3.208		1.10	1.00	10.1	30.0
8:2 FTS	AveID	14.12	12.14		0.824	0.958	-14.0	30.0
Perfluorodecanoic acid (PFDA)	AveID	1.119	1.129		1.01	1.00	0.9	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8704	0.7865		0.904	1.00	-9.6	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.9378	0.8837		0.908	0.964	-5.8	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8552	0.7570		0.885	1.00	-11.5	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8192	0.7719		0.942	1.00	-5.8	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.003	0.9574		0.954	1.00	-4.6	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8246	0.8109		0.983	1.00	-1.7	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1831	0.1556		0.850	1.00	-15.0	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9326		1.05	1.00	5.0	30.0
13C4 PFBA	Ave	0.9539	0.9858		2.58	2.50	3.3	30.0
13C5 PFPeA	Ave	0.8142	0.8300		2.55	2.50	1.9	30.0
13C3 PFBS	Ave	1.157	1.191		2.39	2.33	2.9	30.0
13C2 PFHxA	Ave	0.8990	0.9258		2.57	2.50	3.0	30.0
13C4 PFHpA	Ave	1.089	1.146		2.63	2.50	5.3	30.0
18O2 PFHxS	Ave	0.6917	0.6813		2.33	2.37	-1.5	30.0
M2-6:2 FTS	Ave	0.0861	0.0793		2.19	2.38	-7.8	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265586/3 Calibration Date: 12/15/2018 19:27
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.15LLC_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9895	1.035		2.61	2.50	4.6	30.0
13C4 PFOS	Ave	0.6814	0.7433		2.61	2.39	9.1	30.0
13C5 PFNA	Ave	0.9142	0.9207		2.52	2.50	0.7	30.0
13C8 FOSA	Ave	0.4374	0.4315		2.47	2.50	-1.3	30.0
13C2 PFDA	Ave	0.9588	0.9416		2.46	2.50	-1.8	30.0
M2-8:2 FTS	Ave	0.0113	0.0116		2.44	2.40	1.9	30.0
d3-NMeFOSAA	Ave	0.4238	0.3931		2.32	2.50	-7.2	30.0
13C2 PFUnA	Ave	0.8293	0.8307		2.50	2.50	0.2	30.0
d5-NEtFOSAA	Ave	0.3569	0.3427		2.40	2.50	-4.0	30.0
13C2 PFDoA	Ave	0.9925	1.004		2.53	2.50	1.2	30.0
13C2 PFTeDA	Ave	0.7914	0.7796		2.46	2.50	-1.5	30.0
13C2 PFHxDA	Ave	0.7892	0.7697		2.44	2.50	-2.5	30.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Instrument ID: A9 Start Date: 12/16/2018 01:12

Analysis Batch Number: 265591 End Date: 12/16/2018 01:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-265591/1		12/16/2018 01:12	1	2018.12.15LLC_052.d	Acquity 2.1(mm)
LCSD 320-264671/3-A		12/16/2018 01:20	1	2018.12.15LLC_053.d	Acquity 2.1(mm)
ZZZZZ		12/16/2018 01:27	5		Acquity 2.1(mm)
CCV 320-265591/4		12/16/2018 01:35	1	2018.12.15LLC_055.d	Acquity 2.1(mm)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265591/1 Calibration Date: 12/16/2018 01:12
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.15LLC_052.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9696	0.9101		2.35	2.50	-6.1	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.043	1.011		2.42	2.50	-3.1	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.998	0.9489		2.10	2.21	-4.9	30.0
4:2 FTS	AveID	0.1728	0.1386		1.87	2.34	-19.8	30.0
Perfluorohexanoic acid (PFHxA)	AveID	0.8816	0.7769		2.20	2.50	-11.9	30.0
Perfluoropentanesulfonic acid	AveID	0.4889	0.4881		2.34	2.35	-0.2	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.083	0.9482		2.19	2.50	-12.4	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.234	1.206		2.22	2.28	-2.3	30.0
6:2 FTS	AveID	2.119	1.936		2.17	2.37	-8.6	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.066	1.046		2.33	2.38	-1.9	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.024	0.999		2.44	2.50	-2.5	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.076	1.011		2.18	2.32	-6.1	30.0
Perfluorononanoic acid (PFNA)	AveID	1.009	0.9625		2.38	2.50	-4.6	30.0
Perfluorononanesulfonic acid	AveID	0.6567	0.6267		2.29	2.40	-4.6	30.0
Perfluorooctanesulfonamide (PFOSA)	AveID	2.912	2.938		2.52	2.50	0.9	30.0
8:2 FTS	AveID	14.12	13.37		2.27	2.40	-5.3	30.0
Perfluorodecanoic acid (PFDA)	AveID	1.119	1.077		2.40	2.50	-3.8	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8704	0.7834		2.25	2.50	-10.0	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.9378	0.9192		2.36	2.41	-2.0	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8552	0.8026		2.35	2.50	-6.2	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8192	0.7589		2.32	2.50	-7.4	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.003	0.9439		2.35	2.50	-5.9	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8246	0.8069		2.45	2.50	-2.2	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1831	0.1512		2.06	2.50	-17.4	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8638		2.47	2.50	-1.0	30.0
13C4 PFBA	Ave	0.9539	0.9452		2.48	2.50	-0.9	30.0
13C5 PFPeA	Ave	0.8142	0.8167		2.51	2.50	0.3	30.0
13C3 PFBS	Ave	1.157	1.174		2.36	2.33	1.4	30.0
13C2 PFHxA	Ave	0.8990	0.9332		2.60	2.50	3.8	30.0
13C4 PFHpA	Ave	1.089	1.134		2.60	2.50	4.2	30.0
18O2 PFHxS	Ave	0.6917	0.6869		2.35	2.37	-0.7	30.0
M2-6:2 FTS	Ave	0.0861	0.0793		2.19	2.38	-7.9	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265591/1 Calibration Date: 12/16/2018 01:12
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.15LLC_052.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9895	0.9844		2.49	2.50	-0.5	30.0
13C4 PFOS	Ave	0.6814	0.7337		2.57	2.39	7.7	30.0
13C5 PFNA	Ave	0.9142	0.8924		2.44	2.50	-2.4	30.0
13C8 FOSA	Ave	0.4374	0.4452		2.54	2.50	1.8	30.0
13C2 PFDA	Ave	0.9588	0.9372		2.44	2.50	-2.3	30.0
M2-8:2 FTS	Ave	0.0113	0.0099		2.09	2.40	-12.8	30.0
d3-NMeFOSAA	Ave	0.4238	0.3962		2.34	2.50	-6.5	30.0
13C2 PFUnA	Ave	0.8293	0.8063		2.43	2.50	-2.8	30.0
d5-NEtFOSAA	Ave	0.3569	0.3398		2.38	2.50	-4.8	30.0
13C2 PFDoA	Ave	0.9925	0.9843		2.48	2.50	-0.8	30.0
13C2 PFTeDA	Ave	0.7914	0.8145		2.57	2.50	2.9	30.0
13C2 PFHxDA	Ave	0.7892	0.8449		2.68	2.50	7.1	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265591/4 Calibration Date: 12/16/2018 01:35
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.15LLC_055.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9696	0.9033		0.932	1.00	-6.8	30.0
Perfluoropentanoic acid (PFPeA)	AveID	1.043	0.9923		0.951	1.00	-4.9	30.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.998	0.9126		0.809	0.884	-8.5	30.0
4:2 FTS	AveID	0.1728	0.1306		0.706	0.934	-24.4	30.0
Perfluorohexanoic acid (PFHxA)	AveID	0.8816	0.8268		0.938	1.00	-6.2	30.0
Perfluoropentanesulfonic acid	AveID	0.4889	0.4840		0.929	0.938	-1.0	30.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.083	1.028		0.950	1.00	-5.0	30.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.234	1.147		0.845	0.910	-7.1	30.0
6:2 FTS	AveID	2.119	2.081		0.931	0.948	-1.8	30.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.066	1.092		0.975	0.952	2.4	30.0
Perfluorooctanoic acid (PFOA)	AveID	1.024	0.996		0.973	1.00	-2.7	30.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.076	1.049		0.904	0.928	-2.6	30.0
Perfluorononanoic acid (PFNA)	AveID	1.009	0.9836		0.974	1.00	-2.6	30.0
Perfluorononanesulfonic acid	AveID	0.6567	0.6827		0.998	0.960	4.0	30.0
Perfluorooctanesulfonamide (PFOSA)	AveID	2.912	3.060		1.05	1.00	5.0	30.0
8:2 FTS	AveID	14.12	13.28		0.901	0.958	-5.9	30.0
Perfluorodecanoic acid (PFDA)	AveID	1.119	1.157		1.03	1.00	3.4	30.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8704	0.8158		0.937	1.00	-6.3	30.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.9378	0.9541		0.981	0.964	1.7	30.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8552	0.7846		0.917	1.00	-8.3	30.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8192	0.7300		0.891	1.00	-10.9	30.0
Perfluorododecanoic acid (PFDoA)	AveID	1.003	1.005		1.00	1.00	0.2	30.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8246	0.8139		0.987	1.00	-1.3	30.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.1831	0.1539		0.840	1.00	-16.0	30.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9319		1.05	1.00	4.9	30.0
13C4 PFBA	Ave	0.9539	0.9315		2.44	2.50	-2.3	30.0
13C5 PFPeA	Ave	0.8142	0.8210		2.52	2.50	0.8	30.0
13C3 PFBS	Ave	1.157	1.151		2.31	2.33	-0.5	30.0
13C2 PFHxA	Ave	0.8990	0.8564		2.38	2.50	-4.7	30.0
13C4 PFHpA	Ave	1.089	1.051		2.41	2.50	-3.4	30.0
18O2 PFHxS	Ave	0.6917	0.6824		2.33	2.37	-1.3	30.0
M2-6:2 FTS	Ave	0.0861	0.0736		2.03	2.38	-14.5	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Lab Sample ID: CCV 320-265591/4 Calibration Date: 12/16/2018 01:35
 Instrument ID: A9 Calib Start Date: 12/07/2018 03:11
 GC Column: Acquity ID: 2.10 (mm) Calib End Date: 12/07/2018 03:55
 Lab File ID: 2018.12.15LLC_055.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	0.9895	0.9782		2.47	2.50	-1.1	30.0
13C4 PFOS	Ave	0.6814	0.6784		2.38	2.39	-0.4	30.0
13C5 PFNA	Ave	0.9142	0.9243		2.53	2.50	1.1	30.0
13C8 FOSA	Ave	0.4374	0.4274		2.44	2.50	-2.3	30.0
13C2 PFDA	Ave	0.9588	0.9158		2.39	2.50	-4.5	30.0
M2-8:2 FTS	Ave	0.0113	0.0096		2.02	2.40	-15.6	30.0
d3-NMeFOSAA	Ave	0.4238	0.3683		2.17	2.50	-13.1	30.0
13C2 PFUnA	Ave	0.8293	0.7931		2.39	2.50	-4.4	30.0
d5-NEtFOSAA	Ave	0.3569	0.3574		2.50	2.50	0.2	30.0
13C2 PFDoA	Ave	0.9925	0.9690		2.44	2.50	-2.4	30.0
13C2 PFTeDA	Ave	0.7914	0.7859		2.48	2.50	-0.7	30.0
13C2 PFHxDA	Ave	0.7892	0.8044		2.55	2.50	1.9	30.0

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 320-263261/1
 Matrix: Water Lab File ID: 2018.12.05LLA_004.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/05/2018 15:45
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263261 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	0.040	U M	0.050	0.040	0.0088
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.040	U M	0.050	0.040	0.012
307-24-4	Perfluorohexanoic acid (PFHxA)	0.040	U	0.050	0.040	0.015
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.040	U	0.050	0.040	0.0063
335-67-1	Perfluorooctanoic acid (PFOA)	0.040	U M	0.050	0.040	0.021
375-95-1	Perfluorononanoic acid (PFNA)	0.040	U	0.050	0.040	0.0068
335-76-2	Perfluorodecanoic acid (PFDA)	0.040	U	0.050	0.040	0.0078
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.040	U	0.050	0.040	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.040	U	0.050	0.040	0.014
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.040	U	0.050	0.040	0.033
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.040	U	0.050	0.040	0.0073
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.040	U	0.050	0.040	0.0050
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.040	U	0.050	0.040	0.0043
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.040	U	0.050	0.040	0.0048
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.040	U	0.050	0.040	0.014
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.040	U	0.050	0.040	0.0080
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.040	U	0.050	0.040	0.0088

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 320-263261/1
 Matrix: Water Lab File ID: 2018.12.05LLA_004.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/05/2018 15:45
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263261 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	103		50-150
STL00992	13C4 PFBA	95		50-150
STL01893	13C5 PFPeA	95		50-150
STL00993	13C2 PFHxA	99		50-150
STL01892	13C4 PFHpA	99		50-150
STL00990	13C4 PFOA	103		50-150
STL00995	13C5 PFNA	101		50-150
STL00996	13C2 PFDA	105		50-150
STL00997	13C2 PFUnA	102		50-150
STL00998	13C2 PFDoA	103		50-150
STL00994	18O2 PFHxS	104		50-150
STL02116	13C2 PFTeDA	104		50-150
STL00991	13C4 PFOS	103		50-150
STL02337	13C3 PFBS	97		50-150

DILUTED RESULTS ONLY (NO ACTION)

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 320-264730/1
 Matrix: Water Lab File ID: 2018.12.12LLA_004.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/12/2018 09:19
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 264730 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	0.040	U M	0.050	0.040	0.0088
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.040	U M	0.050	0.040	0.012
307-24-4	Perfluorohexanoic acid (PFHxA)	0.040	U	0.050	0.040	0.015
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.040	U M	0.050	0.040	0.0063
335-67-1	Perfluorooctanoic acid (PFOA)	0.040	U M	0.050	0.040	0.021
375-95-1	Perfluorononanoic acid (PFNA)	0.040	U	0.050	0.040	0.0068
335-76-2	Perfluorodecanoic acid (PFDA)	0.040	U	0.050	0.040	0.0078
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.040	U	0.050	0.040	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.040	U	0.050	0.040	0.014
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.040	U	0.050	0.040	0.033
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.040	U	0.050	0.040	0.0073
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.00669	J	0.050	0.040	0.0050
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.040	U	0.050	0.040	0.0043
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.040	U	0.050	0.040	0.0048
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.040	U	0.050	0.040	0.014
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.040	U	0.050	0.040	0.0080
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.040	U	0.050	0.040	0.0088

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 320-264730/1
 Matrix: Water Lab File ID: 2018.12.12LLA_004.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/12/2018 09:19
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 264730 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	100		50-150
STL00992	13C4 PFBA	104		50-150
STL01893	13C5 PFPeA	98		50-150
STL00993	13C2 PFHxA	100		50-150
STL01892	13C4 PFHpA	97		50-150
STL00990	13C4 PFOA	101		50-150
STL00995	13C5 PFNA	99		50-150
STL00996	13C2 PFDA	94		50-150
STL00997	13C2 PFUnA	101		50-150
STL00998	13C2 PFDoA	104		50-150
STL00994	18O2 PFHxS	96		50-150
STL02116	13C2 PFTeDA	105		50-150
STL00991	13C4 PFOS	101		50-150
STL02337	13C3 PFBS	102		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 320-265165/1
 Matrix: Water Lab File ID: 2018.12.14LLB_004.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/14/2018 17:54
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265165 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	0.040	U M	0.050	0.040	0.0088
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.040	U M	0.050	0.040	0.012
307-24-4	Perfluorohexanoic acid (PFHxA)	0.040	U M	0.050	0.040	0.015
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.040	U	0.050	0.040	0.0063
335-67-1	Perfluorooctanoic acid (PFOA)	0.040	U M	0.050	0.040	0.021
375-95-1	Perfluorononanoic acid (PFNA)	0.040	U M	0.050	0.040	0.0068
335-76-2	Perfluorodecanoic acid (PFDA)	0.040	U	0.050	0.040	0.0078
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.040	U	0.050	0.040	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.040	U	0.050	0.040	0.014
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.040	U	0.050	0.040	0.033
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.040	U	0.050	0.040	0.0073
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.040	U M	0.050	0.040	0.0050
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.00692	J M	0.050	0.040	0.0043
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.040	U	0.050	0.040	0.0048
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.040	U	0.050	0.040	0.014
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.040	U	0.050	0.040	0.0080
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.040	U	0.050	0.040	0.0088

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 320-265165/1
 Matrix: Water Lab File ID: 2018.12.14LLB_004.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/14/2018 17:54
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265165 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	93		50-150
STL00992	13C4 PFBA	96		50-150
STL01893	13C5 PFPeA	101		50-150
STL00993	13C2 PFHxA	93		50-150
STL01892	13C4 PFHpA	96		50-150
STL00990	13C4 PFOA	97		50-150
STL00995	13C5 PFNA	95		50-150
STL00996	13C2 PFDA	94		50-150
STL00997	13C2 PFUnA	91		50-150
STL00998	13C2 PFDoA	96		50-150
STL00994	18O2 PFHxS	98		50-150
STL02116	13C2 PFTeDA	94		50-150
STL00991	13C4 PFOS	99		50-150
STL02337	13C3 PFBS	99		50-150

DILUTED RESULTS ONLY (NO ACTION)

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 320-265418/1
 Matrix: Water Lab File ID: 2018.12.14LLB_004.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/14/2018 20:54
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265418 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	0.040	U M	0.050	0.040	0.0088
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.040	U M	0.050	0.040	0.012
307-24-4	Perfluorohexanoic acid (PFHxA)	0.040	U	0.050	0.040	0.015
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.040	U M	0.050	0.040	0.0063
335-67-1	Perfluorooctanoic acid (PFOA)	0.040	U	0.050	0.040	0.021
375-95-1	Perfluorononanoic acid (PFNA)	0.040	U	0.050	0.040	0.0068
335-76-2	Perfluorodecanoic acid (PFDA)	0.040	U	0.050	0.040	0.0078
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.040	U	0.050	0.040	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.040	U	0.050	0.040	0.014
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.040	U	0.050	0.040	0.033
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.040	U	0.050	0.040	0.0073
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.040	U	0.050	0.040	0.0050
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.00742	J	0.050	0.040	0.0043
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.040	U	0.050	0.040	0.0048
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.040	U	0.050	0.040	0.014
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.040	U	0.050	0.040	0.0080
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.040	U	0.050	0.040	0.0088

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 320-265418/1
 Matrix: Water Lab File ID: 2018.12.14LLB_004.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/14/2018 20:54
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265418 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	92		50-150
STL00992	13C4 PFBA	100		50-150
STL01893	13C5 PFPeA	96		50-150
STL00993	13C2 PFHxA	100		50-150
STL01892	13C4 PFHpA	100		50-150
STL00990	13C4 PFOA	98		50-150
STL00995	13C5 PFNA	103		50-150
STL00996	13C2 PFDA	98		50-150
STL00997	13C2 PFUnA	100		50-150
STL00998	13C2 PFDoA	109		50-150
STL00994	18O2 PFHxS	99		50-150
STL02116	13C2 PFTeDA	106		50-150
STL00991	13C4 PFOS	100		50-150
STL02337	13C3 PFBS	98		50-150

NOT USED IN DATA VALIDATION

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 320-265586/1
 Matrix: Water Lab File ID: 2018.12.15LLC_004.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/15/2018 19:12
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265586 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	0.040	U M	0.050	0.040	0.0088
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.040	U M	0.050	0.040	0.012
307-24-4	Perfluorohexanoic acid (PFHxA)	0.040	U M	0.050	0.040	0.015
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.040	U M	0.050	0.040	0.0063
335-67-1	Perfluorooctanoic acid (PFOA)	0.040	U M	0.050	0.040	0.021
375-95-1	Perfluorononanoic acid (PFNA)	0.040	U M	0.050	0.040	0.0068
335-76-2	Perfluorodecanoic acid (PFDA)	0.040	U	0.050	0.040	0.0078
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.040	U	0.050	0.040	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.040	U	0.050	0.040	0.014
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.040	U	0.050	0.040	0.033
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.040	U	0.050	0.040	0.0073
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.040	U M	0.050	0.040	0.0050
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.00702	J M	0.050	0.040	0.0043
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.040	U	0.050	0.040	0.0048
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.040	U M	0.050	0.040	0.014
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.040	U	0.050	0.040	0.0080
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.040	U	0.050	0.040	0.0088

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: CCB 320-265586/1
 Matrix: Water Lab File ID: 2018.12.15LLC_004.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/15/2018 19:12
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 265586 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	103		50-150
STL00992	13C4 PFBA	98		50-150
STL01893	13C5 PFPeA	102		50-150
STL00993	13C2 PFHxA	101		50-150
STL01892	13C4 PFHpA	100		50-150
STL00990	13C4 PFOA	103		50-150
STL00995	13C5 PFNA	102		50-150
STL00996	13C2 PFDA	100		50-150
STL00997	13C2 PFUnA	98		50-150
STL00998	13C2 PFDoA	105		50-150
STL00994	18O2 PFHxS	103		50-150
STL02116	13C2 PFTeDA	104		50-150
STL00991	13C4 PFOS	107		50-150
STL02337	13C3 PFBS	102		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: ICB 320-261835/9
 Matrix: Water Lab File ID: 2018.11.29PFCICAL_012.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 11/29/2018 07:39
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 261835 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	0.040	U M	0.050	0.040	0.0088
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.040	U	0.050	0.040	0.012
307-24-4	Perfluorohexanoic acid (PFHxA)	0.040	U	0.050	0.040	0.015
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.040	U	0.050	0.040	0.0063
335-67-1	Perfluorooctanoic acid (PFOA)	0.040	U	0.050	0.040	0.021
375-95-1	Perfluorononanoic acid (PFNA)	0.040	U	0.050	0.040	0.0068
335-76-2	Perfluorodecanoic acid (PFDA)	0.040	U	0.050	0.040	0.0078
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.040	U	0.050	0.040	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.040	U	0.050	0.040	0.014
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.040	U	0.050	0.040	0.033
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.040	U	0.050	0.040	0.0073
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.040	U	0.050	0.040	0.0050
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.00856	J	0.050	0.040	0.0043
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.040	U	0.050	0.040	0.0048
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.040	U	0.050	0.040	0.014
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.040	U	0.050	0.040	0.0080
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.040	U	0.050	0.040	0.0088

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: ICB 320-261835/9
 Matrix: Water Lab File ID: 2018.11.29PFCICAL_012.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 11/29/2018 07:39
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 261835 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	102		50-150
STL00992	13C4 PFBA	97		50-150
STL01893	13C5 PFPeA	102		50-150
STL00993	13C2 PFHxA	102		50-150
STL01892	13C4 PFHpA	97		50-150
STL00990	13C4 PFOA	99		50-150
STL00995	13C5 PFNA	105		50-150
STL00996	13C2 PFDA	99		50-150
STL00997	13C2 PFUnA	108		50-150
STL00998	13C2 PFDoA	99		50-150
STL00994	18O2 PFHxS	99		50-150
STL02116	13C2 PFTeDA	101		50-150
STL00991	13C4 PFOS	99		50-150
STL02337	13C3 PFBS	98		50-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: ICB 320-263574/9
 Matrix: Water Lab File ID: 2018.12.06ICALB_009.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/07/2018 04:03
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263574 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	0.040	U	0.050	0.040	0.0088
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.040	U	0.050	0.040	0.012
307-24-4	Perfluorohexanoic acid (PFHxA)	0.040	U	0.050	0.040	0.015
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.040	U	0.050	0.040	0.0063
335-67-1	Perfluorooctanoic acid (PFOA)	0.040	U	0.050	0.040	0.021
375-95-1	Perfluorononanoic acid (PFNA)	0.040	U	0.050	0.040	0.0068
335-76-2	Perfluorodecanoic acid (PFDA)	0.040	U	0.050	0.040	0.0078
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.040	U	0.050	0.040	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.040	U	0.050	0.040	0.014
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.040	U	0.050	0.040	0.033
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.00993	J	0.050	0.040	0.0073
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.040	U	0.050	0.040	0.0050
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.00952	J M	0.050	0.040	0.0043
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.040	U	0.050	0.040	0.0048
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.040	U M	0.050	0.040	0.014
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.040	U	0.050	0.040	0.0080
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.040	U	0.050	0.040	0.0088

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: ICB 320-263574/9
 Matrix: Water Lab File ID: 2018.12.06ICALB_009.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/07/2018 04:03
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: Acquity ID: 2.1(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263574 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	100		50-150
STL00992	13C4 PFBA	96		50-150
STL01893	13C5 PFPeA	98		50-150
STL00993	13C2 PFHxA	100		50-150
STL01892	13C4 PFHpA	101		50-150
STL00990	13C4 PFOA	99		50-150
STL00995	13C5 PFNA	98		50-150
STL00996	13C2 PFDA	102		50-150
STL00997	13C2 PFUnA	96		50-150
STL00998	13C2 PFDoA	99		50-150
STL00994	18O2 PFHxS	105		50-150
STL02116	13C2 PFTeDA	103		50-150
STL00991	13C4 PFOS	104		50-150
STL02337	13C3 PFBS	98		50-150

DILUTED RESULTS ONLY (NO ACTION)

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: ICB 320-263888/9
 Matrix: Water Lab File ID: 2018.12.07ICAL_012.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/08/2018 06:09
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263888 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
375-22-4	Perfluorobutanoic acid (PFBA)	0.040	U	0.050	0.040	0.0088
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.040	U	0.050	0.040	0.012
307-24-4	Perfluorohexanoic acid (PFHxA)	0.040	U	0.050	0.040	0.015
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.040	U	0.050	0.040	0.0063
335-67-1	Perfluorooctanoic acid (PFOA)	0.040	U	0.050	0.040	0.021
375-95-1	Perfluorononanoic acid (PFNA)	0.040	U	0.050	0.040	0.0068
335-76-2	Perfluorodecanoic acid (PFDA)	0.040	U	0.050	0.040	0.0078
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.040	U	0.050	0.040	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.040	U	0.050	0.040	0.014
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.040	U	0.050	0.040	0.033
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.040	U	0.050	0.040	0.0073
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.040	U	0.050	0.040	0.0050
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.00961	J	0.050	0.040	0.0043
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.040	U	0.050	0.040	0.0048
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.040	U	0.050	0.040	0.014
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.040	U	0.050	0.040	0.0080
754-91-6	Perfluorooctanesulfonamide (FOSA)	0.040	U	0.050	0.040	0.0088

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: ICB 320-263888/9
 Matrix: Water Lab File ID: 2018.12.07ICAL_012.d
 Analysis Method: EPA 537 (Mod) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 12/08/2018 06:09
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: GeminiC18 3x100 ID: 3(mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 263888 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01056	13C8 FOSA	99		50-150
STL00992	13C4 PFBA	100		50-150
STL01893	13C5 PFPeA	99		50-150
STL00993	13C2 PFHxA	102		50-150
STL01892	13C4 PFHpA	100		50-150
STL00990	13C4 PFOA	98		50-150
STL00995	13C5 PFNA	98		50-150
STL00996	13C2 PFDA	100		50-150
STL00997	13C2 PFUnA	97		50-150
STL00998	13C2 PFDoA	100		50-150
STL00994	18O2 PFHxS	98		50-150
STL02116	13C2 PFTeDA	98		50-150
STL00991	13C4 PFOS	98		50-150
STL02337	13C3 PFBS	97		50-150

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Batch Number: 258787 Batch Start Date: 11/13/18 08:36 Batch Analyst: Vang, Mai Yee

Batch Method: 3535 Batch End Date: 11/13/18 17:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	LCMPFC_ALL_SU 00130	LCPFC-IS 00108
MB 320-258787/1		3535, EPA 537 (Mod)				250.00 mL	10.00 mL	500 uL	500 uL
LCS 320-258787/2		3535, EPA 537 (Mod)				250.00 mL	10.00 mL	500 uL	500 uL
LCSD 320-258787/3		3535, EPA 537 (Mod)				250.00 mL	10.00 mL	500 uL	500 uL
320-44773-A-1	TP-PFC-036-TPI	3535, EPA 537 (Mod)	T	294.12 g	27.11 g	267 mL	10.00 mL	500 uL	500 uL
320-44773-A-2	TP-PFC-036-MID-C ARBON	3535, EPA 537 (Mod)	T	293.21 g	27.82 g	265.4 mL	10.00 mL	500 uL	500 uL
320-44773-A-3	TP-PFC-036-TPE	3535, EPA 537 (Mod)	T	292.87 g	26.88 g	266 mL	10.00 mL	500 uL	500 uL
320-44773-A-4	TP-PFC-036-TPE-D	3535, EPA 537 (Mod)	T	283.76 g	27.02 g	256.7 mL	10.00 mL	500 uL	500 uL
320-44773-A-5	NASB-GWETS-EW-08 -103118	3535, EPA 537 (Mod)	T	282.92 g	27.46 g	255.5 mL	10.00 mL	500 uL	500 uL
320-44773-A-6	NASB-GWETS-EW-01 -103118	3535, EPA 537 (Mod)	T	300.59 g	28.15 g	272.4 mL	10.00 mL	500 uL	500 uL
320-44773-A-7	NASB-GWETS-EW-09 -103118	3535, EPA 537 (Mod)	T	294.68 g	27.18 g	267.5 mL	10.00 mL	500 uL	500 uL
320-44773-A-8	NASB-GWETS-EW-02 -103118	3535, EPA 537 (Mod)	T	266.46 g	27.13 g	239.3 mL	10.00 mL	500 uL	500 uL
320-44773-B-9	NASB-GWETS-EW-04 -103118	3535, EPA 537 (Mod)	T	287.51 g	27.24 g	260.3 mL	10.00 mL	500 uL	500 uL
320-44773-B-10	NASB-GWETS-EW-05 -103118	3535, EPA 537 (Mod)	T	296.76 g	26.79 g	270 mL	10.00 mL	500 uL	500 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFCSP 00199	AnalysisComment				
MB 320-258787/1		3535, EPA 537 (Mod)							
LCS 320-258787/2		3535, EPA 537 (Mod)		500 uL					
LCSD 320-258787/3		3535, EPA 537 (Mod)		500 uL					
320-44773-A-1	TP-PFC-036-TPI	3535, EPA 537 (Mod)	T						
320-44773-A-2	TP-PFC-036-MID-C ARBON	3535, EPA 537 (Mod)	T						
320-44773-A-3	TP-PFC-036-TPE	3535, EPA 537 (Mod)	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Batch Number: 258787 Batch Start Date: 11/13/18 08:36 Batch Analyst: Vang, Mai Yee

Batch Method: 3535 Batch End Date: 11/13/18 17:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFCSF 00199	AnalysisComment				
320-44773-A-4	TP-PFC-036-TPE-D	3535, EPA 537 (Mod)	T						
320-44773-A-5	NASB-GWETS-EW-08 -103118	3535, EPA 537 (Mod)	T		9.42 g of sample remaining				
320-44773-A-6	NASB-GWETS-EW-01 -103118	3535, EPA 537 (Mod)	T						
320-44773-A-7	NASB-GWETS-EW-09 -103118	3535, EPA 537 (Mod)	T						
320-44773-A-8	NASB-GWETS-EW-02 -103118	3535, EPA 537 (Mod)	T						
320-44773-B-9	NASB-GWETS-EW-04 -103118	3535, EPA 537 (Mod)	T						
320-44773-B-10	NASB-GWETS-EW-05 -103118	3535, EPA 537 (Mod)	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Batch Number: 258787 Batch Start Date: 11/13/18 08:36 Batch Analyst: Vang, Mai Yee

Batch Method: 3535 Batch End Date: 11/13/18 17:10

Batch Notes	
Balance ID	QA-070
Batch Comment	Client labels Match TA labels, MYV 11-13-18 ENVI-CARB #103369.
First End time	11/13/2018 17:10
H2O ID	11-12-18
Hexane ID	1423821
Manifold ID	H and X
Methanol ID	1430699
Sodium Hydroxide ID	1425249
Pipette/Syringe/Dispenser ID	I46162G
Analyst ID - Reagent Drop	MYV
Analyst ID - IS Reagent Drop	MYV 1404845
Analyst ID - IS Reagent Drop Witness	SKD
Rinse Solvent Lot	1423821
Rinse Solvent Name	HEXANE
Solvent Lot #	1431944
Solvent Name	0.3% NH4OH/MeOH
SPE Cartridge Lot ID	004338233A
SPE Cartridge Type	WAX 500mg
First Start time	11/13/2018 08:36

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Batch Number: 264671 Batch Start Date: 12/12/18 07:22 Batch Analyst: Vang, Mai Yee

Batch Method: 3535 Batch End Date: 12/12/18 14:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	LCMPFC_ALL_SU 00143	LCPFCS-IS 00121
MB 320-264671/1		3535, EPA 537 (Mod)				250.00 mL	10.00 mL	500 uL	500 uL
LCS 320-264671/2		3535, EPA 537 (Mod)				250.00 mL	10.00 mL	500 uL	500 uL
LCSD 320-264671/3		3535, EPA 537 (Mod)				250.00 mL	10.00 mL	500 uL	500 uL
320-44773-B-1	TP-PFC-036-TPI	3535, EPA 537 (Mod)	T	293.91 g	27.14 g	266.8 mL	10.00 mL	500 uL	500 uL
320-44773-B-2	TP-PFC-036-MID-C ARBON	3535, EPA 537 (Mod)	T	299.03 g	28.36 g	270.7 mL	10.00 mL	500 uL	500 uL
320-44773-B-3	TP-PFC-036-TPE	3535, EPA 537 (Mod)	T	292.82 g	28.07 g	264.8 mL	10.00 mL	500 uL	500 uL
320-44773-B-4	TP-PFC-036-TPE-D	3535, EPA 537 (Mod)	T	282.12 g	27.88 g	254.2 mL	10.00 mL	500 uL	500 uL
320-44773-B-5	NASB-GWETS-EW-08 -103118	3535, EPA 537 (Mod)	T	294.10 g	28.25 g	265.9 mL	10.00 mL	500 uL	500 uL
320-44773-B-6	NASB-GWETS-EW-01 -103118	3535, EPA 537 (Mod)	T	295.80 g	27.14 g	268.7 mL	10.00 mL	500 uL	500 uL
320-44773-B-7	NASB-GWETS-EW-09 -103118	3535, EPA 537 (Mod)	T	292.98 g	27.50 g	265.5 mL	10.00 mL	500 uL	500 uL
320-44773-B-8	NASB-GWETS-EW-02 -103118	3535, EPA 537 (Mod)	T	287.74 g	26.60 g	261.1 mL	10.00 mL	500 uL	500 uL
320-44773-D-9	NASB-GWETS-EW-04 -103118	3535, EPA 537 (Mod)	T	273.63 g	28.10 g	245.5 mL	10.00 mL	500 uL	500 uL
320-44773-C-10	NASB-GWETS-EW-05 -103118	3535, EPA 537 (Mod)	T	258.93 g	26.89 g	232 mL	10.00 mL	500 uL	500 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFCS 00200					
MB 320-264671/1		3535, EPA 537 (Mod)							
LCS 320-264671/2		3535, EPA 537 (Mod)		500 uL					
LCSD 320-264671/3		3535, EPA 537 (Mod)		500 uL					
320-44773-B-1	TP-PFC-036-TPI	3535, EPA 537 (Mod)	T						
320-44773-B-2	TP-PFC-036-MID-C ARBON	3535, EPA 537 (Mod)	T						
320-44773-B-3	TP-PFC-036-TPE	3535, EPA 537 (Mod)	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Batch Number: 264671 Batch Start Date: 12/12/18 07:22 Batch Analyst: Vang, Mai Yee

Batch Method: 3535 Batch End Date: 12/12/18 14:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFCSP 00200					
320-44773-B-4	TP-PFC-036-TPE-D	3535, EPA 537 (Mod)	T						
320-44773-B-5	NASB-GWETS-EW-08-103118	3535, EPA 537 (Mod)	T						
320-44773-B-6	NASB-GWETS-EW-01-103118	3535, EPA 537 (Mod)	T						
320-44773-B-7	NASB-GWETS-EW-09-103118	3535, EPA 537 (Mod)	T						
320-44773-B-8	NASB-GWETS-EW-02-103118	3535, EPA 537 (Mod)	T						
320-44773-D-9	NASB-GWETS-EW-04-103118	3535, EPA 537 (Mod)	T						
320-44773-C-10	NASB-GWETS-EW-05-103118	3535, EPA 537 (Mod)	T						

Batch Notes	
Balance ID	QA-070
Batch Comment	TA labels match client IDs MYV 12-12-18. Envi Carb: 107566.
First End time	12/12/2018 14:30
H2O ID	12/10/18
Hexane ID	1451478
Manifold ID	A and Y
Methanol ID	1461881
Sodium Hydroxide ID	1453142
Pipette/Syringe/Dispenser ID	I46162G
Analyst ID - Reagent Drop	MYV
Analyst ID - IS Reagent Drop	MYV : 1435170
Analyst ID - IS Reagent Drop Witness	DTH
Solvent Lot #	1453049
Solvent Name	0.3% NH4OH/MeOH
SPE Cartridge Lot ID	004238285A
SPE Cartridge Type	WAX 500mg
SPE Disk Type	500mg
First Start time	12/12/2018 07:22

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-44773-1

SDG No.: _____

Batch Number: 264671 Batch Start Date: 12/12/18 07:22 Batch Analyst: Vang, Mai Yee

Batch Method: 3535 Batch End Date: 12/12/18 14:30

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

187

Method ID PFC

Analyst (Print Name) Annie Y

Reagent ID 1L80:20-0021

Date 12/11/18

<u>Job #</u>	<u>Sample #</u>	<u>Original F.V. (uL)</u>	<u>Aliquot (uL)</u>	<u>Dilution F.V. (uL)</u>	<u>Dilution Factor</u>
320-44773	7	10,000	60	300	5

Comments:

Method ID PFC

Analyst (Print Name) Jannie Y

Reagent ID CC 80-20-KW20

Date 12/12/18

107

Job #	Sample #	Original F.V. (uL)	Aliquot (uL)	Dilution F.V. (uL)	Dilution Factor
320-44773 ↓ ↓	1	10,000	30	300	10
	7	↓	100	200	2
	8	↓	100	200	2
	9	↓	30	300	10
	10	↓	15	300	20
12/12/18 JY					

Comments:

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	BRUNSWICK_NAS	320-44773-1	SITE 00011	SITE 00011	TP-PFC-MIDPOINT	Monitoring well	3015831.52	384866.155	N6247016D9008	WE21	TETRA TECH, INC.	TP-PFC-036-MID-CARBON	Ground water	Normal (Regular)	31-Oct-18	537	Perfluoroalkyl Compounds
MID_ATLANTIC	BRUNSWICK_NAS	320-44773-1	SITE 00011	SITE 00011	TP-PFC-EFFLUENT	Monitoring well	3015831.52	384866.155	N6247016D9008	WE21	TETRA TECH, INC.	TP-PFC-036-TPE-D	Ground water	Field duplicate	31-Oct-18	537	Perfluoroalkyl Compounds
MID_ATLANTIC	BRUNSWICK_NAS	320-44773-1	SITE 00011	SITE 00011	TP-PFC-INFLUENT	Monitoring well	3015831.52	384866.155	N6247016D9008	WE21	TETRA TECH, INC.	TP-PFC-036-TPI	Ground water	Normal (Regular)	31-Oct-18	537	Perfluoroalkyl Compounds
MID_ATLANTIC	BRUNSWICK_NAS	320-44773-1	SITE 00011	SITE 00011	TP-PFC-EFFLUENT	Monitoring well	3015831.52	384866.155	N6247016D9008	WE21	TETRA TECH, INC.	TP-PFC-036-TPE	Ground water	Normal (Regular)	31-Oct-18	537	Perfluoroalkyl Compounds