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October 27, 2022

VIA EMAIL AND PRIVATE CARRIER

Anuradha Mohanty
Land and Materials Administration
Maryland Department of the Environment
1800 Washington Boulevard, Suite: 625
Baltimore, Maryland 21230

Subject: Transmittal of the 2022 Groundwater Monitoring Report
Martin State Airport, 701 Wilson Point Road
Middle River, Maryland

Dear Ms. Mohanty,

For your review, please find enclosed two hard copies of the above-referenced document. This annual report details the 2022 Dump Road Area and Main Terminal groundwater sampling and synoptic groundwater level measurements collected from wells at the Dump Road Area and Main Terminal within Martin State Airport in Middle River, Maryland.

If possible, we respectfully request to receive MDE's document review comments by December 12, 2022.

If you have any questions or require any additional information please contact me by phone at 301-964-2482, or via e-mail at anthony.c.apanavage@lmco.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Anthony Apanavage".

Anthony Apanavage
Project Lead
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**2022 GROUNDWATER MONITORING REPORT
MARTIN STATE AIRPORT
701 WILSON POINT ROAD
MIDDLE RIVER, MARYLAND**

Prepared for:
Lockheed Martin Corporation

Prepared by:
Tetra Tech, Inc.

October 2022

Approved by:
Lockheed Martin, Inc.

Revision: 0



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ACRONYMS AND ABBREVIATIONS

BTEX	benzene, toluene, ethylbenzene, and xylenes
CD	compact disc
<i>cis</i> -1,2-DCE	<i>cis</i> -1,2-dichloroethene
cVOCs	chlorinated volatile organic compounds
DA	Drum Area
DCE	dichloroethene
DO	dissolved oxygen
DRA	Dump Road Area
DRO	diesel-range organics
GRO	gasoline-range organics
HAA	haloacetic acid
IDW	investigation-derived waste
Lockheed Martin	Lockheed Martin Corporation
MAA	Maryland Aviation Administration
MDANG	Maryland Air National Guard
MDE	Maryland Department of the Environment
µg/L	microgram(s) per liter
mL/min	milliliter(s) per minute
MSA	Martin State Airport
MT	Main Terminal area
NAA	natural-attenuation assessment
NAVD88	North American Vertical Datum of 1988
NTU	nephelometric turbidity unit
ORP	oxidation-reduction potential
PCE	tetrachloroethene
pCi/L	picocurie(s) per liter
PHA	Petroleum Hydrocarbon Area
PPE	personal protective equipment
QA/QC	quality assurance/quality control
REC	recognized environmental condition

SVOC	semivolatile organic compound
Tetra Tech	Tetra Tech, Inc.
TB	trip blank
TCE	trichloroethene
TDS	total dissolved solids
TIC	tentatively identified compound
TPH	total petroleum hydrocarbon
TT Area East	Taxiway Tango Area East
TT Median Area	Taxiway Tango Median Area
USDOT	United States Department of Transportation
USEPA	United State Environmental Protection Agency
UST	underground storage tank
VAS	vertical aquifer sampling
VC	vinyl chloride
VOC	volatile organic compound

SECTION 1 INTRODUCTION

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc. (Tetra Tech) has prepared this annual (2022) report detailing Dump Road Area (DRA) and Main Terminal (MT) groundwater sampling and synoptic groundwater level measurements collected from wells at the Dump Road Area and Main Terminal within Martin State Airport (MSA) in Middle River, Maryland (Figure 1-1). This report summarizes groundwater sampling procedures and chemical analytical results for groundwater samples collected from May through early June 2022. The objectives of this investigation, conducted in accordance with the 2022 groundwater monitoring work plan (Tetra Tech, Inc. [Tetra Tech], 2022a), were to:

- provide a current round of groundwater data for selected monitoring wells
- better understand the nature and extent of contamination in groundwater including the effects of operating the groundwater treatment system
- evaluate time-based trends of onsite groundwater plumes
- evaluate the interaction between shallow groundwater and Frog Mortar Creek
- provide information that can be used to update the modeling of shallow groundwater flow patterns and discharge to Frog Mortar Creek
- better understand the groundwater plumes in sufficient detail to update the site conceptual model
- repair monitoring wells to preserve well integrity

These data, in conjunction with previously collected site data, support numerical modeling of shallow-groundwater flow-patterns, including those imparted by the groundwater interim remedial action (IRA) and direct groundwater discharge to Frog Mortar Creek. These data also support review of the ongoing Dump Road Area groundwater extraction and treatment system that has been operating since November 2017.

All groundwater samples were chemically analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs) including 1,4-dioxane, total metals, and dissolved metals. Some groundwater samples were also analyzed for total petroleum hydrocarbons (TPH)-diesel-range organics (DRO) and gasoline-range organics (GRO), hexavalent chromium, and radium (228 and total alpha radium). This report is organized as follows:

Section 2—Site Background: Briefly summarizes the site background and references recent reports containing detailed background information related to the project.

Section 3—Investigation Approach and Methodology: Presents the technical approach for groundwater monitoring and describes the field methodology employed for the investigation.

Section 4—Results: Presents the investigation results.

Section 5—Summary: Summarizes the investigation findings.

Section 6—References: Cites references used to compile this report.

SECTION 2 SITE BACKGROUND

Martin State Airport (MSA) is at 701 Wilson Point Road in Middle River, Maryland. It is bounded by Frog Mortar Creek to the east and Stansbury Creek to the west (Figure 2-1). These creeks conjoin at the southern boundary of the site and continue south to feed Middle River and Chesapeake Bay. The Dump Road Area (DRA), in the southeastern portion of MSA, is bounded by Frog Mortar Creek to the east and the main airport runway to the west. The Main Terminal (MT) area comprises approximately 280 acres in the northwestern portion of MSA, just east of Wilson Point Road and Dark Head Cove. The MT area consists of the main terminal building, aircraft hangars and fueling stations, several taxiways, and the northern portion of the runway. Figure 2-1 shows the locations of MSA, the DRA, and the MT area.

Lockheed Martin Corporation (Lockheed Martin) has conducted detailed investigations at the DRA and at the MT since 1999 and 2010, respectively. Lockheed Martin has also conducted additional investigations at Strawberry Point, Greater Strawberry Point, and Frog Mortar Creek (Figure 2-1). Investigations of these latter areas are not discussed in this report because they are being addressed under separate investigation programs.

2.1 DUMP ROAD AREA

Environmental investigations of MSA began in the mid-1980s, when the Maryland Department of the Environment (MDE) conducted site inspections related to stored drums and a reported chemical dump. In 1989, MDE conducted a preliminary assessment of MSA that identified fill areas and ponds, the latter of which were reportedly used from the 1930s through the 1960s to dispose of spent battery acid, acid-type strippers, and other acidic solutions (MDE, 1989). Detailed investigations of the DRA began after July 1991, when the Maryland Aviation Administration (MAA) encountered four buried drums adjacent to Taxiway Tango during trenching to install an electrical cable (Figure 2-2). Discovery of these drums led to investigation of the surrounding area

for possible soil and groundwater contamination, as MDE required in its letters of January 6, 1992, and January 14, 1997, to MAA (MDE, 1992; 1997).

MAA conducted several investigations of the DRA between 1991 and 1998. These studies identified four areas where subsequent environmental sampling investigations were focused: The Taxiway Tango Median Area, the Petroleum Hydrocarbon Area (PHA), Pond 1, and the Drum Area. These early investigation areas are shown in Figure 2-2.

From 1999–2010, Lockheed Martin conducted a remedial investigation (Tetra Tech, Inc., 2012c) and supplemental fieldwork to further delineate the extent of soil, groundwater, and pond-sediment chemical contamination that had been indicated by earlier DRA studies. Through geophysical surveys, membrane-interface probes, test pits, soil borings, and chemical analyses of soil and pond-sediment samples, the remedial investigation identified large areas of buried fill and debris and surface and subsurface soil contamination, in and around buried fill material and in pond sediment. The extent of buried fill and debris at the DRA was estimated to be approximately 25 acres (see Figure 2-2).

A 2012 review of historical aerial photographs (Tetra Tech, 2013b) identified and mapped what appear to be open burning areas, open pits or ponds, soil or debris piles, possible ammunition bunkers, ground scars, and fill areas (see shaded areas on Figure 2-2). Several of these historical features coincide with areas of elevated contaminant concentrations in soil and/or groundwater; these areas were later identified as possible contaminant-source areas and were subsequently investigated in 2012–2016 (Tetra Tech, 2013a, 2014a-b, 2014d, 2016, 2017, 2018, 2019b). Groundwater sampling of DRA groundwater monitoring wells has been conducted annually from 2006-2021.

Trichloroethene (TCE) (a metal degreaser) and TCE-degradation daughter-products have been detected in groundwater throughout the DRA investigation area, with the highest concentrations appearing in the upper and intermediate regions of the surficial aquifer. TCE has been detected in DRA groundwater at concentrations ranging from 0.5–490,000 micrograms per liter ($\mu\text{g/L}$) and is therefore a primary contaminant of concern in DRA groundwater. The MDE groundwater standard for TCE is 5 $\mu\text{g/L}$. 1,4-Dioxane, benzene, toluene, xylenes, and several metals (typically

co-located with chlorinated solvents like TCE) are also considered groundwater chemicals of concern. TCE-degradation daughter-products (e.g., dichloroethene [DCE], vinyl chloride [VC], etc.) are typically co-located with TCE at MSA and are considered primary contaminants of concern in DRA groundwater.

An interim groundwater extraction and treatment system was constructed to address groundwater impacts in 2017 and is currently operational at the DRA site. This system consists of 16 groundwater extraction wells, underground piping, and a building that houses components that capture and treat groundwater containing volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. The wells and underground piping pump groundwater from the surficial aquifer to the aboveground treatment building, creating a “hydraulic barrier” that captures groundwater and prevents contaminants from migrating offsite. The treatment building is 60 feet wide and 170 feet long (10,200 square feet) and is near Frog Mortar Creek in the east central portion of the DRA (Figure 2-2). Treated groundwater is tested routinely and is subsequently discharged to Frog Mortar Creek via an MDE permitted outfall. Surface water data collected to date shows a significant reduction in the magnitude and extent of VOCs detected in surface water.

In 2022, one identified area of elevated concentrations of VOCs, designated Source Area 5, was the focus of a pilot study to determine the effectiveness of *in situ* bioremediation (Tetra Tech, 2022b). Field injections were completed in April-May 2022 and are currently being monitored per the approved workplan (Tetra Tech, 2022c).

Additional details regarding DRA background and history, including details of previous environmental investigations and discussions of contaminant-source areas at the DRA, are in the *Dump Road Area Characterization of Possible Source Areas Report* (Tetra Tech, 2013a) and *Taxiway Tango Soil Characterization Report* (Tetra Tech, 2014c), and therefore are not repeated herein. A detailed chronological discussion of investigations at the DRA from 1985–2012 is provided as Appendix A of the *Dump Road Source-Areas Investigation Work Plan* (Tetra Tech, 2012a). Recent DRA groundwater sampling results are provided in annual groundwater monitoring reports (Tetra Tech, 2015, 2016b, 2017, 2019a, 2019b, and 2020a, 2021).

2.2 MAIN TERMINAL

Previous investigations directly related to the MT area include the *Environmental Evaluation Report for Martin State Airport Main Terminal* (Tetra Tech, 2010b) and its addendum (Tetra Tech, 2010a). These evaluations concentrated on environmental impacts resulting from practices carried out between 1929–1975, when the Glenn L. Martin Company and Martin Marietta owned and operated on the property. Possible areas of environmental concern in the MT area were identified through local and federal library documents, historical aerial photographs, facility records, museum records, regulatory data, environmental database reviews, interviews with former employees, and environmental reports and data.

The environmental evaluation identified nine recognized environmental conditions (RECs)¹ (RECs #1–9) in the MT area (Tetra Tech, 2010b), along with five potential RECs (RECs #10–14). The addendum report (Tetra Tech, 2010a) identified eight additional RECs (RECs #15–22) and provided supplemental details on 10 of 14 initial/possible RECs. Additional information obtained during development of the addendum report led to upgrading potential REC #14 to a full REC, because an underground storage tank (UST) had once been located there. MT area RECs (exclusive of potential RECs #10–13) are shown in Figure 2-3.

A Phase II environmental site assessment for the MT area was conducted in 2010–2012 (Tetra Tech, 2012b and 2013c). Soil and groundwater samples were collected and analyzed for possible organic and inorganic constituents. Twelve shallow-aquifer wells (MT-MW-01S through MT-MW-12S) were installed around the perimeter of the airport hangars and the airport terminal building near the identified MT area RECs. Benzene (a petroleum-related VOC) was detected in groundwater samples collected from well MT-MW02S in 2011 (50.5 micrograms per liter [$\mu\text{g/L}$]) and 2012 (87 $\mu\text{g/L}$); both concentrations exceed the MDE groundwater standard (5 $\mu\text{g/L}$) for benzene.

Seven other VOCs (acetone, carbon disulfide, carbon tetrachloride, chloroform, chloromethane, naphthalene, and toluene) were detected in groundwater samples collected in 2012, but

¹Recognized environmental conditions (RECs) are based on the presence or likely presence of hazardous substances and/or petroleum products under conditions that could indicate a historical, existing, or potential release to the property's structures, soil, groundwater, or surface water.

concentrations of those analytes were below MDE groundwater standards. However, concentrations of total petroleum hydrocarbons (TPH)-gasoline-range organics (GRO), TPH-diesel-range organics (DRO), beryllium, nickel, and vanadium exceeded MDE groundwater standards in several samples. Detected concentrations of semivolatile organic compounds (SVOCs), including 1,4-dioxane, did not exceed MDE groundwater standards in the 2010–2012 samples.

Groundwater sampling of MT area monitoring wells was conducted annually from 2013-2018. Sampling is continuing every other year on even years, restricted to monitoring wells MT-MW01S and MT-MW02S, for DRO/GRO analysis only. Benzene concentrations between 10 µg/L and 20 µg/L have been detected at MT-MW02S between 2013 and 2018, but benzene has not been detected above 2 µg/L in any other MT well during the same time period. Monitoring wells MT-03S through MT-12S were abandoned by a Maryland licensed driller in 2020 (Tetra Tech, 2020b).

Additional details regarding the background and history of the MT area, including details of environmental investigations, REC discussions, and results of groundwater sampling, are available in several previous documents (Tetra Tech, 2010a-b, 2012b, 2013c-d, 2015, 2016b, 2017, 2018, 2019, and 2020a), and therefore are not repeated herein. Main terminal wells MT-01S and MT-02S were not sampled in 2021 but were sampled during the 2022 program.

2.3 WELL ABANDONMENT

The Maryland Department of the Environment (MDE) approved the formal abandonment of 37 monitoring wells in 2020, including 27 wells in the Dump Road Area (DRA) and 10 wells in the MT area, with work being completed late summer of 2020. Thirty-six wells were formally abandoned, as well MSA-DMW-04S. This latter well was initially proposed and approved for abandonment, but Lockheed Martin determined that this well should remain active for future groundwater monitoring, and it was therefore not abandoned. The *2020 Monitoring Well Abandonment Report, Martin State Airport* (Tetra Tech, 2020b), documents field activities and submittals required for well abandonment.

SECTION 3

INVESTIGATION APPROACH AND METHODOLOGY

This section summarizes the 2022 groundwater sampling program for the Dump Road Area (DRA) and Main Terminal (MT) of Martin State Airport (MSA), performed in accordance with the approved work plan (Tetra Tech, 2022a). The 2022 investigation also included synoptic groundwater level measurements at the DRA/MT wells, and laboratory analysis of groundwater samples collected. The data collected during this investigation augments previous data obtained from the DRA and MT (between 2003 and 2021).

3.1 SYNOPTIC GROUNDWATER LEVEL MEASUREMENTS

A round of synoptic groundwater level measurements was conducted by a team of two field scientists on April 20-21, 2022. Static water levels were measured using an electronic, graduated, water-level meter. The static water level was determined by lowering the meter probe into the well until an audible tone indicated that the air/water interface had been reached. The water level relative to the top of the well casing was recorded to the nearest 0.01 foot. Groundwater level measurement sheets are provided in Appendix A.

3.2 GROUNDWATER SAMPLING

Data collected between 2017 and 2020 were evaluated in the 2021 groundwater monitoring work plan (Tetra Tech, 2021) to determine if reductions in sampled locations or analytes, while still meeting the project objectives, was appropriate. Reduction rationale included comparison of analytical data over the past four years, coupled with any detections of contaminants of concern in nearby monitoring wells, to evaluate whether previously sampled monitoring points were required. This evaluation resulted in a reduction from 95 wells in 2020, to 93 wells in 2021, and to 92 wells in 2022. Therefore, the total number of DRA wells sampled in 2022 was 92, along with the two wells sampled at MT, bringing the total number of MSA wells sampled to 94.

Groundwater samples were collected from 92 DRA wells on May 13–June 16, 2022, as part of the annual monitoring program, while the two MT wells were sampled June 10, 2022 (Figure 3-1). The four deep wells (MW-27D, MW-29D, MW-30D, and MW-31D) installed in permeable zones below the surficial aquifer of concern were also sampled as part of this investigation. Table 3-1 summarizes the groundwater sampling program. The following sections describe procedures for well purging and groundwater sampling, and describe the chemical analyses performed on the samples collected.

Well purging—Monitoring wells were purged using United States Environmental Protection Agency (USEPA) low-flow purging techniques before sample collection. Groundwater was purged using a peristaltic pump fitted with dedicated, disposable high-density polyethylene tubing, or by using a submersible pump positioned in the center of the well’s saturated screen. The pumping rate during purging ranged between 100–300 milliliters per minute (mL/min) and was frequently measured using a graduated cylinder. The purge rate was adjusted to minimize groundwater drawdown from the initial static water level but was maintained at or below 300 mL/minute.

During groundwater purging, water-level drawdown, and groundwater parameters (including pH [a measure of acidity and alkalinity], temperature, specific conductance, dissolved oxygen [DO], oxidation-reduction potential [ORP], and turbidity) were measured and recorded every five to 10 minutes until purging was complete. Data were recorded in the appropriate site-specific logbook and on low-flow-purge data sheets. Water-quality parameters were measured using an inline water-quality meter. Turbidity readings were collected using a separate turbidity meter.

Purging was considered complete when one of several scenarios were encountered in the field. Depending on which condition was encountered first, purging was deemed complete either when the monitored water-quality parameters stabilized, when three saturated well-casing volumes had been removed, or when the well had been purged dry. Parameter stabilization was achieved when three consecutive readings (taken at five-minute intervals) were within ± 0.1 standard units for pH, $\pm 3\%$ for specific conductance and temperature, $\pm 10\%$ for DO and ORP, and less than 10 nephelometric turbidity units (NTUs) for turbidity. If the parameters did not stabilize after three well volumes had been removed, the condition was noted on the sampling log and the well was

sampled. If the monitoring well was purged dry, the water level in the well was allowed to recover a minimum of 80% of its initial static water level before groundwater was sampled. Most wells stabilized within one hour of purge time; well-specific purging and sampling details are recorded on the well-purging and sample-record sheets provided in Appendix B.

All purged water from DRA wells was collected in five-gallon buckets and dumped into the sump inside the MSA treatment plant building at the end of each workday. The water in that sump is periodically drained into equalization tanks connected to the groundwater treatment system, along with water obtained from the extraction wells feeding the plant. Purged water from the two MT wells were collected in five-gallon buckets and placed in one 55-gallon steel drum located on the approved secondary containment area located at Greater Strawberry Point. Waste documentation is in Appendix C.

Sample collection—Monitoring wells were sampled after purging using the same dedicated tubing or submersible pump that had been used during purging. Groundwater samples were collected using low-flow sampling protocols at the same pumping rate that had been used during well purging. Groundwater was pumped directly into the appropriate sample containers (for all VOC samples), or into a certified-clean disposable container supplied by the laboratory that was then used to pour the collected water directly into the appropriate sample containers. Samples for dissolved metals and hexavalent chromium analyses were filtered with a 0.45-micron filter and collected into the appropriate sample containers.

3.3 LABORATORY ANALYSES

Groundwater samples were collected and analyzed by an off-site laboratory using the following methods (see Table 3-1 for details):

- VOCs plus tentatively identified compounds (TICs), Freon 22 (dichlorodifluoromethane), and Freon 113 (1,1,2-trichlorotrifluoroethane) by USEPA Method 8260C— (84 wells)
- 1,4-dioxane by USEPA Method 8270C SIM— (84 wells)
- hexavalent chromium by USEPA Method 218.6— (33 wells)
- total and dissolved priority pollutant metals by USEPA Method 6020B— (86 wells)

-
- mercury by SW846 Method 7470A— (86 wells)
 - total petroleum hydrocarbons (TPH)– gasoline-range organics (GROs) and diesel-range organics (DROs) by SW846 Method 8015B— (35 shallow wells screened in the upper surficial-aquifer)
 - radium-228 and total alpha radium by USEPA 900-series methods— (7 wells in the upper, intermediate, and lower surficial-aquifers)

Wells selected for sampling and chemical analyses were based on current data needs for the treatment system monitoring, past sampling results, and optimization of data collection. Radium-228 and total alpha radium were sampled at seven locations across all aquifer levels to determine site concentrations of these “emerging contaminants”² in groundwater. Radium samples were collected from 7 groundwater-monitoring wells in the DRA. Samples for TPH-GRO and TPH-DRO analyses were only collected from wells in the upper surficial-aquifer (except for intermediate well MW-34I, which was collected in error), because petroleum-related constituents are less dense than water and are typically found at or near the water table.

Hexavalent chromium was analyzed using USEPA Method 218.6 (ion chromatography), with a specified detection limit of 0.005 µg/L, a value lower than the method’s published detection limit (0.10 µg/L).

One trip blank per cooler of VOC samples was collected per day for quality assurance/quality control (QA/QC) purposes. Matrix-spike and matrix-spike-duplicate samples were collected on a 1:20 basis. Chemical results for this sampling event are discussed in Section 4. A table listing chemical results for all samples is in Appendix D.

3.4 DOCUMENTATION

A master site logbook was maintained by the field sampling team as an overall record of field activities. Sample documentation consisted of completed chain-of-custody reports and matrix-specific sample-log sheets. The chain-of-custody report is an individual laboratory-supplied standardized form summarizing and documenting pertinent sample information, such as sample

²*Emerging contaminants are chemicals not commonly monitored by regulatory agencies, but which have recently been identified by USEPA or MDE as contaminants that pose possible environmental or public health risk if present in drinking water supplies or groundwater.*

identification and type, matrix, date and time of collection, preservation, and requested analyses. Sample custody procedures document sample acquisition and integrity. Chain-of-custody reports are with the data-validation reports in Appendix E, and full laboratory analytical reports are in Appendix F.

3.5 EQUIPMENT DECONTAMINATION

Reusable equipment (e.g., water-level meter) was decontaminated before and after each use. Small, reusable equipment was decontaminated as follows:

- Liquinox[®] and potable-water wash
- potable-water rinse
- distilled-water rinse
- air drying
- collecting decontamination solutions for disposal

Decontamination rinsate was first containerized in a five-gallon bucket and then transferred to the sump inside the MSA groundwater treatment plant. Decontamination water from the Main Terminal wells was collected and placed with the purge water generated from the MT wells. Dedicated and/or disposable equipment used for groundwater purging and sampling did not require decontamination.

3.6 WASTE MANAGEMENT

Investigation-derived waste (IDW) consisting of decontamination-rinsate water, monitoring well purge water, disposable sampling equipment, and personal protective equipment (PPE) was generated during groundwater sampling. PPE was brushed off, placed in trash bags, and disposed of in a designated facility trash receptacle. Disposable equipment was also rinsed off and disposed of in a facility-approved trash receptacle. Well purge-water and decontamination fluids from the DRA wells were collected in five-gallon buckets with secondary containment and transferred to the MSA groundwater treatment plant sump at the end of each workday; 296 gallons of purge water were generated and dumped into the plant sump over the duration of the investigation. Purge water from the Main Terminal wells was containerized in one 55-gallon steel drum, characterized

per the most current waste management plan (Tetra Tech, 2022d), profiled as nonhazardous, and removed from the site via Clean Harbors to a Lockheed Martin approved disposal facility. The one drum of MT water was removed from the site on August 19, 2022, to be disposed of at the El Dorado, AR Clean Harbors facility. Waste documentation is included in Appendix C. At the writing of this report, the final manifest and certificate of destruction are not yet available.

3.7 GENERAL SAMPLING PROCEDURES, NOMENCLATURE, AND HANDLING

Each sample received a unique sample identification consisting of the site location, well number, and six-digit sampling date. For example, a groundwater sample collected on June 6, 2022, from monitoring well MSA-MW-06 was labeled MSA-MW-06-060322. Trip blanks were labeled with a “TB” prefix, followed by the blank’s six-digit submittal date (e.g., TB-060322). Field-related sample-handling considerations include selection of sample containers, preservatives, allowable holding times, and requested analyses.

Proper chain-of-custody procedures were followed throughout all phases of sample collection and handling. Empty sample containers were released under signature from the laboratory and accepted under signature by the sampler or other individual responsible for maintaining custody until the sample containers were transferred to the sampling team. Groundwater samples were collected in these containers, released under signature from the sampling team, and then accepted under signature by the laboratory. Transport containers returning to the laboratory were sealed with strapping tape and a tamper-resistant custody seal. The custody seal shows the signature of the individual releasing the transport container, along with the date and time.

3.8 DATA VALIDATION

Data validation involves having an independent (non-laboratory) party review data provided by the laboratory to ensure that specific criteria have been met. These criteria concern specifications that are not sample dependent; they specify performance requirements that should be fully under a laboratory’s control. For data analyses of organic chemicals, specific validation areas include blanks, performance-evaluation standard materials, and instrument performance checks. For data analyses involving inorganic chemicals like metals, specific validation areas include blanks,

calibration standards, calibration verification standards, laboratory control standards, and interference check standards. The analytical laboratory supplies the chemical data as hard-copy reports and electronic databases.

Once the investigation was complete, chemical data were validated by Tetra Tech, Inc. (Tetra Tech) in accordance with established USEPA protocols to assess the reliability and accuracy of the data. This review was based on the USEPA *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, 2017a), the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017b), and the specifics of the analytical method used. Data validation reports are in Appendix E.

Validation of these data concluded that they are acceptable for their intended uses (i.e., risk screening and risk assessment), except for data qualified as unreliable (UR flags). The data qualifiers (i.e., flags) applied to the chemical results during data validation are listed below:

- J* The analyte is considered present in the sample, but the value is estimated and may not meet highest accuracy or precision standards. In this program, samples were also qualified with “*J*” because quantitation was above the method detection limit but below the laboratory reporting-limit.
- J-* The result is an estimated quantity, but the result may be biased low.
- NJ* The analyte has been tentatively identified. This qualifier indicates presumptive evidence of a compound. Special methods may be required to confirm its presence or absence in future sampling efforts.
- U* Not detected; the analyte was not detected at the reported value.
- UJ* The analyte was not detected. However, the quantitation or detection limit may be inaccurate or imprecise.
- UR* The non-detect result is considered qualitatively or quantitatively unreliable.

All data qualifiers are noted in Appendices D, E, and F.

SECTION 4 RESULTS

This section presents groundwater-elevation data and chemical analysis results for wells in the Dump Road Area (DRA) and Main Terminal (MT) of Martin State Airport (MSA) between May and June 2022. These groundwater results are compared against current Maryland Department of the Environment (MDE) groundwater standards (MDE, 2018) and other pertinent federal/state standards/criteria (if MDE has not established standards for an analyzed chemical).

At present, MDE has not established an advisory level or standard for 1,4-dioxane in drinking water or groundwater. Several states (e.g., California, Colorado, Connecticut, Florida, Maine, Massachusetts, Michigan, and North Carolina) have established drinking water standards or action levels for 1,4-dioxane. These values range from the Massachusetts Office of Research and Standards guideline of 0.3 micrograms per liter ($\mu\text{g/L}$) to Michigan's residential drinking water criterion of 7.2 $\mu\text{g/L}$ (Massachusetts Department of Environmental Protection, 2015, and Michigan Administrative Code R299.44 [Table 1-Groundwater: Residential and Nonresidential], 2017, respectively). USEPA has published a preliminary remedial goal of 6.1 $\mu\text{g/L}$ for 1,4-dioxane in tap water (USEPA, 2006) and a risk-based regional screening-level of 0.46 $\mu\text{g/L}$ for tap water (USEPA, 2017c); the latter risk-based value (0.46 $\mu\text{g/L}$) is used as the comparison criterion to evaluate 1,4-dioxane groundwater concentrations in this report.

Groundwater samples were collected for chemical analyses from 92 DRA monitoring wells and two MT wells over a period of six weeks (May 13–June 16, 2022). Groundwater levels were measured on April 20-21, 2022.

Note that since all groundwater well designations at the DRA contain the same “MSA” prefix, this prefix is omitted in the following discussions to increase readability. In addition, qualifying flags (e.g., *J*) associated with analyte concentrations are omitted to increase readability. However, these data validation flags are shown on applicable Section 4 tables and figures.

4.1 GROUNDWATER LEVEL DATA

Table 4-1 lists the April 2022 static groundwater depth measurements (feet below ground surface) and groundwater elevations (feet relative to mean sea level) for sampled MSA wells. Figures 4-1 through 4-3 illustrate the groundwater-elevation contours for the upper, intermediate, and lower surficial aquifer zones (respectively) at the DRA. Overall, the airport runway and taxiway appear to form a groundwater divide across the site that is likely a result of their higher ground surface elevation. East of the taxiway, groundwater generally flows to the south and southeast, towards Frog Mortar Creek. Localized groundwater patterns are altered and influenced by zones of enhanced groundwater recharge (the ponds) and enhanced groundwater discharge (the extraction wells). The groundwater extraction wells are included on the contour figures, but their water elevations were not used for the contour interpretations because of the likely loss of hydraulic head within these wells that is typically associated with well efficiency.

The groundwater contours and interpreted groundwater flow patterns for the upper surficial aquifer are illustrated on Figure 4-1. A groundwater high is located near Pond 1 and Pond 2, where the lithology consists of clay-rich and less-permeable sediments near the ground surface that result in lower rates of subsurface infiltration and the creation of a groundwater mound with local radial flow away from the mound. The groundwater mound becomes an elongated ridge (or local groundwater divide) downgradient of the ponds to the south and southeast. This mounding also exists in the intermediate (Figure 4-2) and lower (Figure 4-3) surficial aquifers, suggesting that all three zones are in hydraulic communication and function as a common aquifer.

The effects of groundwater extraction from the upper surficial aquifer are evident along the shoreline of Frog Mortar Creek and are also illustrated by the formation of two generalized cones of depression that lower the groundwater to an elevation below mean sea level. East of the elongated groundwater ridge caused by the ponds, most groundwater eventually flows into these cones of depression and is captured by the extraction wells. The drawdown cone east of Pond 2 is created by extraction wells EW-01S, EW-03S, and EW-05S, and is well defined and marked by a steep hydraulic gradient.

As stated above, groundwater contours and interpreted groundwater flow patterns for the intermediate and lower surficial aquifer are illustrated on Figures 4-2 and 4-3, respectively. The

flow patterns within these intervals are generally similar to that of the upper surficial aquifer, including the formation of the groundwater ridge caused by the ponds and the cones of depression caused by the extraction wells. Overall, the hydraulic gradients appear lower in the intermediate and lower surficial aquifers, which may be related to the higher hydraulic conductivity of sediments in these zones.

4.2 GROUNDWATER-CHEMICAL DATA

Groundwater samples were collected from the DRA wells to evaluate and confirm the horizontal and vertical extent of groundwater contamination at the DRA and to evaluate any changes in groundwater conditions in the groundwater treatment system flow field. Validated groundwater-chemical data were used to generate a statistical summary table (Table 4-2) and a data summary table (Table 4-3) that list only detected analytes.

Table 4-3 lists positive detections (or “hits”) generated from these data. Gray shading in Table 4-3 indicates results that exceed analyte-specific screening criteria (MDE groundwater standards or the Massachusetts advisory level for 1,4-dioxane). Table D-1 in Appendix D summarizes results for both detects and nondetects but does not list screening criteria. Data-validation reports and chain-of-custody forms are in Appendix E, and full analytical reports are in Appendix F. Results of the groundwater-chemical analyses for the DRA are below.

4.2.1 Volatile Organic Compounds

Several volatile organic compounds (VOCs) were detected in groundwater (Table 4-2) during this sampling event. *cis*-1,2-Dichloroethene (*cis*-1,2-DCE), trichloroethene (TCE), and vinyl chloride (VC) are the most frequently detected constituents. These chlorinated VOCs (cVOCs) were detected in approximately 76%, 67%, and 64% of the samples collected, respectively (Table 4-2). The maximum detected concentrations of TCE (20,000 µg/L at MW-54I), *cis*-1,2-DCE (23,000 µg/L at MW-54S), and VC (6,800 µg/L at DMW-11S;) are several orders of magnitude (i.e., powers of 10) greater than their groundwater standards (5 µg/L, 70 µg/L, and 2 µg/L, respectively).

Petroleum-related VOCs (e.g., benzene, toluene, ethylbenzene, and xylenes [BTEX]) were detected less frequently, ranging from 5% of samples for ethylbenzene to 20% of samples for

benzene. In general, the maximum BTEX concentrations are lower as compared to concentrations of the three most frequently detected cVOCs, e.g., the maximum BTEX concentration was for toluene (6,900 µg/L in MW-54S).

Chlorinated VOCs exceeding groundwater standards in the upper, intermediate, and lower surficial-aquifer zones are shown in Figures 4-4, 4-5, and 4-6, respectively. The results for the current round are similar to those of previous groundwater sampling rounds. The lateral and vertical distributions of cVOCs in groundwater confirm that several source areas contribute to groundwater contamination at the site (Figures 4-4 through 4-6). These areas include the Taxiway Tango Median Area (TT Median Area; Source Area 5), the Petroleum Hydrocarbon Area (PHA; Source Area 2), Taxiway Tango Area East (TT Area East; Source Area 7), former Pond 3 (Source Area 6), the Drum Area (DA; Source Area 8), and the area east of Pond 1; see Figure 2-2 for the locations of these areas.

Taxiway Tango Median Area—The TT Median Area is in the western portion of the DRA near wells MW-54S/I and DMW-11S (Figures 4-4 through 4-6; Tables 4-2 and 4-3). Historically, DMW-11S had contained the highest concentrations of cVOCs in this area (up to 52,000 µg/L for TCE, and up to 53,000 µg/L for *cis*-1,2-DCE in 2004). Wells MW-54S/I were installed northeast of wells DMW-11S/I, in an area where elevated cVOC concentrations had been detected in the upper and intermediate surficial-aquifer zones during vertical aquifer-sampling (VAS) in 2013, and recent sampling has indicated that these wells (MW-54S/I) now have the highest concentrations in the TT Median Area. Injections for *in situ* bioremediation of groundwater in the Taxiway Tango Median Area (Source Area 5) were completed in April-May 2022 per the *Dump Road Area – Source Area 5 In Situ Bioremediation Remedial Action Work Plan* (Tetra Tech, 2022b). Source Area 5 comprises approximately 8,800 square feet, and the depth interval of contaminated groundwater is generally between 10 to 30 feet below ground surface. The goal is to reduce the TCE concentration in Source Area 5 to less than 50,000 µg/L cleanup level. A baseline sampling event was conducted in March 2022. DMW-11S/I and MW-54S/I were also sampled during the annual sampling event (in June 2022). The wells included in the *Dump Road Area – Source Area 5 In Situ Bioremediation Sampling Plan* (Tetra Tech, 2022c) include semi-annual and annual monitoring for five years after the injections. The first semiannual event post-injection is slated for October 2022. Annual groundwater results are summarized below.

The TCE concentration in groundwater samples collected from MW-54S in 2022 (12,000 µg/L) is much less than that detected in the same well last year (50,000 µg/L in 2021), but at deeper well MW-54I, in which TCE was detected at 20,000 µg/L in 2022, TCE had increased slightly from its 2021 value of 19,000 µg/L. Higher TCE concentrations were detected in the upper aquifer at wells DMW-11S and DMW-11I (1,400 µg/L and 61 µg/L, respectively) in 2022. Note that the TCE concentrations detected in 2022 are lower than previous maximum concentrations for TCE in this area (referenced above for 2004). The MDE groundwater standard for TCE is 5 µg/L.

In monitoring wells MW-54S and MW-54I, concentrations of carbon tetrachloride (950 µg/L and 7,200 µg/L), chloroform (1,300 µg/L and 1,700 µg/L), toluene (6,900 µg/L and 1,700 µg/L), *cis*-1,2-DCE (23,000 µg/L and 5,200 µg/L), and VC (6,400 µg/L [with a nondetect in the intermediate well in 2022]) also exceed their respective MDE groundwater standards. Tetrachloroethene (PCE) and *trans*-1,2-DCE were both nondetect in wells MW-54I and MW-54S. Exceedances were also observed at DMW-11S and DMW-11I (respectively) for *cis*-1,2-DCE (7,200 µg/L and 340 µg/L) and VC (6,800 µg/L and 110 µg/L). Carbon tetrachloride, chloroform, toluene, *cis*-1,2-DCE, and VC have MDE groundwater standards of 5 µg/L, 80 µg/L, 1,000 µg/L, 70 µg/L, and 2 µg/L, respectively.

From 2004–2010, TCE concentrations at DMW-11S ranged from 29,000 µg/L to 52,000 µg/L, but concentrations had declined sharply since 2011, to a low of 1,500 µg/L in 2019. However, the TCE concentration (58,000 µg/L) detected at DMW-11S in 2020 is the maximum in this area thus far. Recent data for MW-54S/I, and lower TCE concentrations at DMW-11S/I in 2021, appear to indicate that TCE at DMW-11S has migrated downgradient to MW-54S/I; however, MW-54S/I may simply be an extension of the TCE-source area at the TT Median Area. An elevated TCE concentration (260,000 micrograms per kilogram) was detected in a shallow soil sample (at 6–8 feet below ground surface) when MW-54S/I was installed, suggesting that elevated TCE concentrations detected in this area are an extension of the TT Median Area source area (Tetra Tech, 2014d).

Petroleum Hydrocarbon Area—This area is in the central portion of the site (Figure 2-2) near well DMW-09 and Pond 1 (Figures 4-4 through 4-6). Wells DMW-09D and DMW-09I, with five and seven VOC exceedances, respectively, have the highest number of VOC exceedances among

PHA wells (see Figures 4-4 through 4-6, and Table 4-3). At DMW-09D, TCE (4,000 µg/L), *cis*-1,2-DCE (680 µg/L) and VC (78 µg/L) were approximately 800 times, 10 times and 39 times above their respective criteria (5 µg/L, 70 µg/L, and 2 µg/L). At DMW-09I, TCE (1,800 µg/L), *cis*-1,2-DCE (1,400 µg/L), and VC (550 µg/L) were approximately 360 times, 20 times, and 275 times above their respective criteria. Groundwater sampled from MW-20S, near DMW-09 and Pond 1, also contained a VC exceedance (5 µg/L) but TCE was below its criterion with a concentration of 2.5 µg/L.

The benzene concentration at DMW-09S (97 µg/L) is the highest detected during this groundwater monitoring round (Table 4-2 and Figure 4-7); this concentration is nearly 20 times higher than its groundwater standard (5 µg/L). Another well (MW-16S) in this area with a benzene exceedance (6.6 µg/L) is hydraulically downgradient of DMW-09S (Figure 4-1). TCE exceedances (1,800 µg/L, and 4,000 µg/L) were detected in respective intermediate (DMW-09I), and lower (DMW-09D) surficial aquifer wells at the DMW-09 location, but TCE was not detected there in the shallow aquifer (at DMW-09S) in 2022. The groundwater sample from monitoring well DMW-09S also exhibited an elevated concentration of 1,2,4-trimethylbenzene (31 µg/L) which has a screening level of 5.6 µg/L.

TT Area East—This area is in the central portion of the DRA; wells sampled in this area in 2022 include wells MW-45S and MW-41S/I. Historical aerial photographs indicate that an open burning area and a pond/pit formerly occupied this area. Groundwater from well MW-45S, installed in the apparent TCE source-area at TT Area East, had exceedances of 1,2-dichloroethane (1,2-DCA) [61 µg/L], TCE (2,700 µg/L), VC (1,600 µg/L), and *cis*-1,2-DCE (2,100 µg/L), and a total cVOC concentration of 6,720 µg/L. Lower concentrations and exceedances for the same four analytes (1,2-DCA, TCE, *cis*-1,2-DCE, and VC) were also detected in MW-41S/I. In addition, benzene exceedances (32 µg/L and 34 µg/L) of its screening criterion (5 µg/L) were detected at respective wells MW-41S and MW-41, as well as an exceedance of chlorobenzene (580 µg/L), which has a groundwater screening level of 100 µg/L, at MW-41I. Chlorobenzene (91 µg/L) at MW-41S was detected below its screening criterion.

Former Pond 3—This area is in the central portion of the DRA, south of Pond 1 (Figure 2-2), at wells MW-53S/I. Wells MW-53S and MW-53I were installed in the former Pond 3 area, where

elevated concentrations of cVOCs were detected in the upper and intermediate surficial-aquifer zones during VAS in 2013. The TCE concentration detected in the upper surficial aquifer at MW-53S (1.8 µg/L) in 2022 is slightly less than detected in 2021 (2.6 µg/L), but the equal to or higher than those detected in 2020 (1.8 µg/L), 2019 (1.4 µg/L), and 2018 (1.8 µg/L). The TCE concentration (6,000 µg/L) detected at MW-53I in 2022 exceeds the screening level (5 µg/L) and is generally consistent with concentrations detected in previous annual sampling rounds (4,500 µg/L, 5,100 µg/L, 6,100 µg/L, and 5,600 µg/L in 2021, 2020, 2019, and 2018, respectively). Groundwater concentrations of TCE in 2022 are much lower than the range of previously detected TCE concentrations (3,600–490,000 µg/L, during the 2013 VAS) at similar depths. Vinyl chloride was detected at concentrations above its screening criteria (2 µg/L) at both MW-53S (6.8 µg/L) and MW-53I (4,300 µg/L).

Drum Area—This area is in the southern portion of the site between wells MW-02/MW-19, MW-05/DMW-07, and MW-40S/I. It extends downgradient and to the east at wells DMW-04, DMW-05, and well clusters MW-50S/I/D, and MW-51S/I/D. The highest VOC concentrations in this area are in the upper surficial aquifer near wells DMW-07S, MW-40S, and DMW-05S; one or more of the three primary cVOCs (TCE, *cis*-1,2-DCE, and VC) exceed their respective groundwater standards in these wells (see Figures 4-4 through 4-6 and Table 4-3). The highest total cVOC concentrations (33,400 µg/L in 2007) in this area were generally detected at well DMW-07S. Concentrations of TCE (1,400 µg/L), *cis*-1,2-DCE (8,400 µg/L), and VC (2,100 µg/L) at DMW-07S in this round (2022) total 11,900 µg/L; all are exceedances of their respective MDE groundwater standards (5 µg/L, 70 µg/L, and 2 µg/L).

Area east of Pond 1—This area is in the northeastern portion of the site between Pond 1 and Frog Mortar Creek. The highest cVOC concentrations are generally near Frog Mortar Creek (Figures 4-4 through 4-6). In 2022, the TCE concentrations at wells MW-52I (930 µg/L) and MW-52D (3,700 µg/L) were lower than last year (4,800 µg/L and 7,300 µg/L, respectively), and generally consistent with levels detected in these wells over several years (2014 through 2020). This area is east of a wetland and a former pond or pit observed in historical photographs and appears to be at the lowest drainage point behind the berm that was constructed when the former Limehouse Cove was filled.

Groundwater concentrations of TCE, VC, and *cis*-1,2-DCE were above respective screening criteria at wells MW-52I/D, MW-46I/D, and MW-47I/D, although concentrations of *cis*-1,2-DCE at wells MW-46D and MW-47S/I were below the screening value. (Note that any results for shown for both intermediate (I) and deep (D) wells on [intermediate aquifer] Figure 4-5 are included because the “deep” wells at these locations are also screened in the intermediate aquifer; refer to Table 4-3 for well-specific aquifer locations.) Previously detected cVOC concentrations (2015–2021) in this area were more than 100 times their respective MDE groundwater standards. These concentrations (at the area east of Pond 1) suggest that high cVOC concentrations extend north of the area currently being monitored at the DRA. Additional wells in this area with notable concentrations of cVOCs greater than screening levels were DMW-03S (with *cis*-1,2-DCE [980 µg/L] and VC [3,600 µg/L] concentrations 14 times and 1,800 times their standards, respectively) and DMW-03I (with *cis*-1,2-DCE [440 µg/L], TCE [560 µg/L], and VC [240 µg/L] concentrations ranging from six times (*cis*-1,2-DCE) to as much as 120 times (VC) higher than their respective standards [70 µg/L and 2 µg/L]).

Taxiway Tango Area North—TCE and *cis*-1,2-DCE exceeded their groundwater standards (5 µg/L and 70 µg/L) at several intermediate wells north and west of Pond 2 (Figures 4-4 and 4-5). TCE exceedances of 2,500 µg/L and 1,600 µg/L were reported north of the pond in wells MW-16I and MW-17I (respectively); *cis*-1,2-DCE exceedances of 480 µg/L and 270 µg/L (respectively) were also detected in these wells, as was an exceedance of VC (33 µg/L) at MW-16I. An exceedance of VC (97 µg/L) was also detected north of the pond (and north of MW-16I and MW-17I) at MW-34I. Exceedances west of the pond include well MW-42I, with respective TCE, *cis*-1,2-DCE, and VC concentrations of 75 µg/L, 990 µg/L, and 210 µg/L. These exceedances suggest that the groundwater-contaminant plume extends northwest of wells DMW-09S/I/D.

Shoreline wells—Wells MW-46S/I/D through MW-52S/I/D form a northwest–southeast trending line on the embankment along the Frog Mortar Creek shoreline. TCE exceedances in shoreline wells range from 24 µg/L (MW-50D) to 3,700 µg/L (MW-52D), with an average concentration (detects only) of approximately 480 µg/L. TCE concentrations above the MDE groundwater standard were detected in two-thirds (14 wells) of the 21 shoreline monitoring wells, with one-fifth (five wells) of these wells having TCE concentrations two orders of magnitude (or 100 times) higher than the MDE groundwater standard (5 µg/L). These TCE concentrations are similar to

those detected in shoreline wells in 2016-2021. Over the last nine annual monitoring events (from 2013 to 2021), TCE concentrations in some surficial-aquifer wells along the shoreline have fluctuated, as indicated by the TCE concentrations detected at well MW-51S over time:

- 2013 – 13,000 µg/L
- 2014 – 730 µg/L
- 2015 – 250 µg/L
- 2016 – 160 µg/L
- 2017 – 5,500 µg/L
- 2018 – 4,300 µg/L
- 2019 – 56 µg/L
- 2020 – 24 µg/L
- 2021 – 23 µg/L
- 2022 – 59 µg/L

The concentrations of TCE daughter products *cis*-1,2-DCE and VC trending over time appear proportional to those of TCE. These trends likely reflect the containment achieved after startup of the groundwater treatment system.

Deep confined-aquifer wells—VOCs were not detected in the three wells (MW-27D, MW-29D, and MW-30D) sampled in the deep confined aquifer.

Natural-attenuation assessment parameters and haloacetic acids—No groundwater samples were collected for natural-attenuation assessment (NAA) parameters or haloacetic acids (HAA) in 2020, 2021, or 2022, as these analyses have been removed from the sampling program. Historical results for NAA and HAA are included in previous annual monitoring reports.

4.2.2 1,4-Dioxane

In general, 1,4-dioxane levels in high cVOC-concentration areas have decreased from initial sampling in 2009 to 2022 but tend to fluctuate over time. 1,4-Dioxane was detected in 49% of groundwater samples collected in 2022 (Table 4-2 and Figure 4-8), less than the 61% detected in 2021, with 2022 concentrations ranging from 1 µg/L (MW-48I) to 450 µg/L (MW-45S). The average of the detected 1,4-dioxane concentrations is 48.85 µg/L. 1,4-Dioxane exceeded its United

States Environmental Protection Agency (USEPA) 1×10^{-6} regional screening level criterion (0.46 $\mu\text{g/L}$) in all samples in which it was detected (41 of 84 samples). Higher concentrations occur primarily in the upper and intermediate surficial-aquifer zones, in wells east of Pond 1 (DMW-03S [170 $\mu\text{g/L}$], and MW-52S/I [69 $\mu\text{g/L}$ and 29 $\mu\text{g/L}$, respectively]). Elevated 1,4-dioxane concentrations are also present in the TT Area East (MW-45S and DMW-09I [450 $\mu\text{g/L}$ and 100 $\mu\text{g/L}$, respectively]) and the area downgradient (MW-53S/I [75 $\mu\text{g/L}$ and 140 $\mu\text{g/L}$, respectively]). The highest concentration of 1,4-dioxane throughout the site (450 $\mu\text{g/L}$) was detected in the TT Area East at MW-45S.

An elevated 1,4-dioxane concentration (130 $\mu\text{g/L}$) was also reported for MW-16S, north of the PHA. Substantially lower concentrations of 1,4-dioxane are reported for wells at the Drum Area plume (the highest concentration in the area was 18 $\mu\text{g/L}$ [DMW-07S]). 1,4-Dioxane was not detected in the deep confined-aquifer groundwater samples (i.e., MW-27D, MW-29D, and MW-30D).

4.2.3 Metals

Tables 4-2 and 4-3 summarize descriptive statistics and detections, respectively, of total metals (unfiltered groundwater samples) and dissolved metals (filtered groundwater samples) in DRA monitoring wells. Metal concentrations that exceed MDE groundwater standards are listed in Table 4-3 and shown on Figures 4-9 through 4-13. Eight total metals and seven dissolved metals were detected at concentrations exceeding groundwater standards in one or more groundwater samples collected in 2022.

As shown in Table 4-3, the maximum concentrations of cadmium, chromium, and nickel exceed standards by more than one order of magnitude in both the total and dissolved metals fractions. Maximum concentrations of arsenic in both the total and dissolved metals fractions (both 19 $\mu\text{g/L}$ detected at MW-14I) are nearly twice its standard of 10 $\mu\text{g/L}$. Wells DMW-03 and MW-45S appears to be installed in the respective cadmium and chromium source-areas. Total cadmium concentrations at MW-45S and DMW-03I during this round (81 $\mu\text{g/L}$ and 800 $\mu\text{g/L}$, respectively) are typically several times higher than their historical concentrations were in nearby wells DMW-01A and DMW-01B. Note that wells DMW-01A/B have not been sampled since 2019.

Maximum concentrations of total and dissolved nickel (880 µg/L and 850 µg/L, respectively) were detected in well MW-24S, southwest of Taxiway Tango in the grassy area between Taxiway Tango and the airport runway. Maximum concentrations of total and dissolved zinc (1,900 µg/L and 2,800 µg/L, respectively) were also detected at MW-24S, with exceedances also detected at MW-41S (720 µg/L, dissolved and total), MW-45S (830 µg/L, dissolved and total), and at MW-54I (1000 µg/L and 920 µg/L) for total and dissolved zinc (respectively).

Hexavalent chromium was detected in 11 of 32 samples in which it was analyzed, at concentrations ranging from 0.013 µg/L to 0.44 µg/L (note that the sample collected at DMW-06S was rejected, so the total number of samples successfully analyzed for hexavalent chromium was 32). Six detections exceeded the MDE screening criteria of 0.035 µg/L; exceedances ranged from 0.065 µg/L (MW-14D) to 0.44 µg/L (MW-15D). Most (i.e., four of six) exceedances of hexavalent chromium were detected in wells screened in the lower surficial aquifer or the deep confined aquifer. All other metals detected in groundwater samples collected from the deep confined-aquifer wells (i.e., in wells MW-27D, MW-29D, MW-30D, and MW-31D) were below their respective available groundwater criteria.

4.2.4 Petroleum Hydrocarbons

Thirty-seven samples from the DRA upper surficial-aquifer and one samples from the intermediate surficial-aquifer (MW-34I) were submitted for total petroleum hydrocarbons (TPH)-diesel-range organics (DRO) and TPH-gasoline-range organics (GRO) analysis (Table 3-1). As shown in Table 4-2, sitewide TPH-DRO were detected in 55% of the groundwater samples collected in 2022, at concentrations ranging from 230 µg/L to 320,000 µg/L, whereas TPH-GRO were detected in 39% of groundwater samples, at concentrations ranging from 54 µg/L to 29,000 µg/L. TPH-DRO and TPH-GRO exceedances of the groundwater standard (47 µg/L for both) are in Figure 4-14. The average detected concentration of TPH-DRO is 16,130 µg/L; the highest concentration reported is for well MW-54S. The average detected concentration of TPH-GRO is approximately 3,789 µg/L, with the highest concentration reported for 2022 also at well MW-54S. The previous highest detection of TPH-DRO at MW-54S was 3,800 µg/L in 2017; the concentration detected in 2022 (320,000 µg/L) is approximately two orders of magnitude greater. TPH-GRO has been detected on numerous occasions above its 2022 detection (29,000 µg/L), including 94,000

µg/L (2018), 67,000 µg/L (2017), and 65,000 µg/L (2019). The 2022 sample log sheet for MW-54S (Appendix B) reports a high turbidity (1,000 NTU) at the time of sampling, which most likely influenced the detected concentrations in this well.

One sample from the intermediate aquifer (MW-34I) was erroneously submitted to the laboratory for TPH-DRO and GRO analysis. TPH-GRO was detected at 77 µg/L, a concentration higher than the groundwater standard of 47 µg/L. TPH-DRO was not detected. Given these results, analyte characteristics, and site history, continued monitoring for TPH-DRO and GRO in the intermediate aquifer is not warranted.

Two samples from Main Terminal (MT) were submitted for TPH-DRO/GRO analysis. TPH-GRO was detected in MT-MW-02S at a concentration of 1,700 µg/L but was not detected in MT-MW-01S. TPH-DRO was detected at both wells, with detected concentrations of 470 µg/L (MT-MW-01S) and 7,400 µg/L (MT-MW-02S). The detected concentrations exceeded the groundwater standard of 47 µg/L.

4.2.5 Radium-228 and Total Alpha Radium

As shown in Table 4-2, radium-228 was detected in six of seven samples, while total alpha radium was detected in five of seven groundwater samples. Radium-228 concentrations range from 0.667 picocuries per liter (pCi/L) to 17.7 pCi/L. The average detected radium-228 concentration is 7.28 pCi/L, with the highest radium-228 concentration reported at well DMW-06I, screened in the intermediate surficial aquifer in the southeastern portion of the DRA. The radium-228 concentration at DMW-03I (14.1 pCi/L), east of Pond 1, also exceeded its groundwater standard (5 pCi/L), as did the concentration at DMW-06D (8.6 pCi/L). Total alpha radium was detected above the groundwater standard (5 pCi/L) at DMW-6I and was detected just under the standard at DMW-3I (4.87 pCi/L). All other concentrations of total alpha radium are less than the groundwater standard (5 pCi/L).

SECTION 5 SUMMARY

This section summarizes the findings of the 2022 groundwater sampling and analysis program for the Dump Road Area (DRA) and Main Terminal (MT) of Martin State Airport (MSA), including groundwater flow directions in the Dump Road Area.

- The airport runway and taxiway are at higher ground surface elevations that form a site-wide groundwater divide. East of the taxiway, groundwater generally flows to the south and southeast, towards Frog Mortar Creek.
- The groundwater flow patterns at the Dump Road Area are locally influenced by zones of enhanced groundwater recharge (the ponds) and enhanced groundwater discharge (the extraction). The groundwater interim remedial action extraction and treatment system in the Dump Road Area started operation in November 2017 and has operated continuously with only a few inactive periods. The extraction wells create cones of depression along the western shore of Frog Mortar Creek, and the groundwater east of the groundwater ridge flows towards the 16 extraction wells.
- Concentrations of chlorinated volatile organic compounds (cVOCs) exceed Maryland Department of the Environment (MDE) groundwater standards throughout much of the Dump Road Area, and at multiple depths. The two highest trichloroethene (TCE) concentrations observed in the current sampling round are 12,000 micrograms per liter ($\mu\text{g/L}$) and 20,000 $\mu\text{g/L}$, reported for upper and intermediate surficial-aquifer wells MW-54S and MW-54I (northwest of MW-45S in the Taxiway Tango median area), respectively. Multiple sources of chlorinated volatile organic compounds have resulted in groundwater plumes that extend to areas north of Pond 2, south to wells MW-40S/I and DMW-07I, and west to the area between Taxiway Tango and the airport runway. Concentrations of chlorinated volatile organic compounds in groundwater are consistent with the 2021 and 2020 groundwater results, with some exceptions. The extraction wells continue to mitigate plume migration into Frog Mortar Creek.
- Volatile organic compounds (VOCs) were detected in groundwater at concentrations greater than the Maryland Department of the Environment groundwater standards in delineated areas north, east, and west of the waste material in the central portion of the Dump Road Area.
- The semivolatile organic compound (SVOC) 1,4-dioxane was detected primarily in groundwater samples from the upper and intermediate surficial aquifer zones. 1,4-Dioxane is co-located in areas that contain the highest concentrations of chlorinated volatile organic

compounds (west of Taxiway Tango at MW-54S/I/D, east of Taxiway Tango at MW-45S and at MW-41S/I, the area hydraulically downgradient of MW-45S, and near and east of Pond 1).

- Concentrations of eight total and seven dissolved metals exceed groundwater standards in one or more surficial-aquifer groundwater samples. Maximum detected concentrations of cadmium and nickel exceed Maryland Department of the Environment groundwater standards by more than one order of magnitude.
- Wells DMW-03 and MW-45S are installed in the apparent respective cadmium and chromium source-areas east of Taxiway Tango. The total cadmium concentration at MW-45S during this round (800 µg/L) is several times higher than any other cadmium concentration detected elsewhere during the sampling event. Chromium concentrations were detected at range of much lower concentrations in 2022 (2.5 µg/L - 110 µg/L) as compared to the range of concentrations in 2021 (0.21 µg/L – 1,100 µg/L). The measured dissolved concentration of cadmium is similar to the concentration detected for its total metals fraction, at 810 µg/L, indicating that these metals are predominately present in their dissolved states.
- Hexavalent chromium was detected in 11 of the 32 samples in which it was analyzed. Six detections exceeded the Maryland Department of the Environment groundwater standard of 0.035 µg/L, detections ranged from 0.013 µg/L to 0.44 µg/L and within the range of background concentrations.
- Total petroleum hydrocarbons (TPH) diesel-range organics (DRO) and gasoline-range organics (GRO) were frequently detected in upper surficial-aquifer groundwater samples. Most concentrations exceed the Maryland Department of the Environment groundwater standard (47 µg/L). The highest concentrations of TPH-DRO and TPH-GRO detected in this round (in 2022) were detected at well MW-54S.
- Wells MT-MW-01S and MT-MW-02S were submitted for TPH-DRO/GRO analysis in 2022. TPH-GRO was detected in MT-MW-02S but was not detected in MT-MW-01S, while TPH-DRO was detected at both wells. The detected concentrations exceeded the groundwater standard of 47 µg/L.
- Radium-228 and total alpha radium were detected in six and five of seven groundwater samples in which they were analyzed, respectively. Detected radium-228 concentrations range from 0.667 picocuries per liter (pCi/L) to 17.7 pCi/L and detected total alpha radium concentrations range from 0.67 pCi/L to 6.39 pCi/L. Detected concentrations of radium-228 exceed the groundwater standard (5 pCi/L) in three monitoring wells, while one total alpha radium concentration exceeded its groundwater standard (also 5 pCi/L).

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FIGURES



Figure 1-1 Martin State Airport Site Location Map

Figure 2-1 Martin State Airport and Surrounding Features

Figure 2-2 Site Features and Areas of Concern—Dump Road Area

Figure 2-3 Recognized Environmental Conditions—Main Terminal Area

Figure 3-1 Groundwater Monitoring Well Locations, 2022—Dump Road Area

Figure 4-1 Groundwater Elevation Contour Map, April 2022—Upper Surficial Aquifer, Dump Road Area

Figure 4-2 Groundwater Elevation Contour Map, April 2022—Intermediate Surficial Aquifer, Dump Road Area

Figure 4-3 Groundwater Elevation Contour Map, April 2022—Lower Surficial Aquifer, Dump Road Area

Figure 4-4 Concentrations of Trichloroethene, *cis*-1,2-Dichloroethene and Vinyl Chloride Exceeding Groundwater Standards, 2022—Upper Surficial Aquifer, Dump Road Area

Figure 4-5 Concentrations of Trichloroethene, *cis*-1,2-Dichloroethene and Vinyl Chloride Exceeding Groundwater Standards, 2022—Intermediate Surficial Aquifer, Dump Road Area

Figure 4-6 Concentrations of Trichloroethene, *cis*-1,2-Dichloroethene and Vinyl Chloride Exceeding Groundwater Standards, 2022—Lower Surficial and Deep Confined Aquifers, Dump Road Area

Figure 4-7 Concentrations of Benzene Exceeding the Groundwater Standard, 2022—Dump Road Area

Figure 4-8 Concentrations of 1,4-Dioxane Exceeding the Groundwater Standard, 2022—Dump Road Area

Figure 4-9 Concentrations of Total Metals Exceeding Groundwater Standards, 2022—Upper Surficial Aquifer, Dump Road Area

Figure 4-10 Concentrations of Dissolved Metals Exceeding Groundwater Standards, 2022—Upper Surficial Aquifer, Dump Road Area

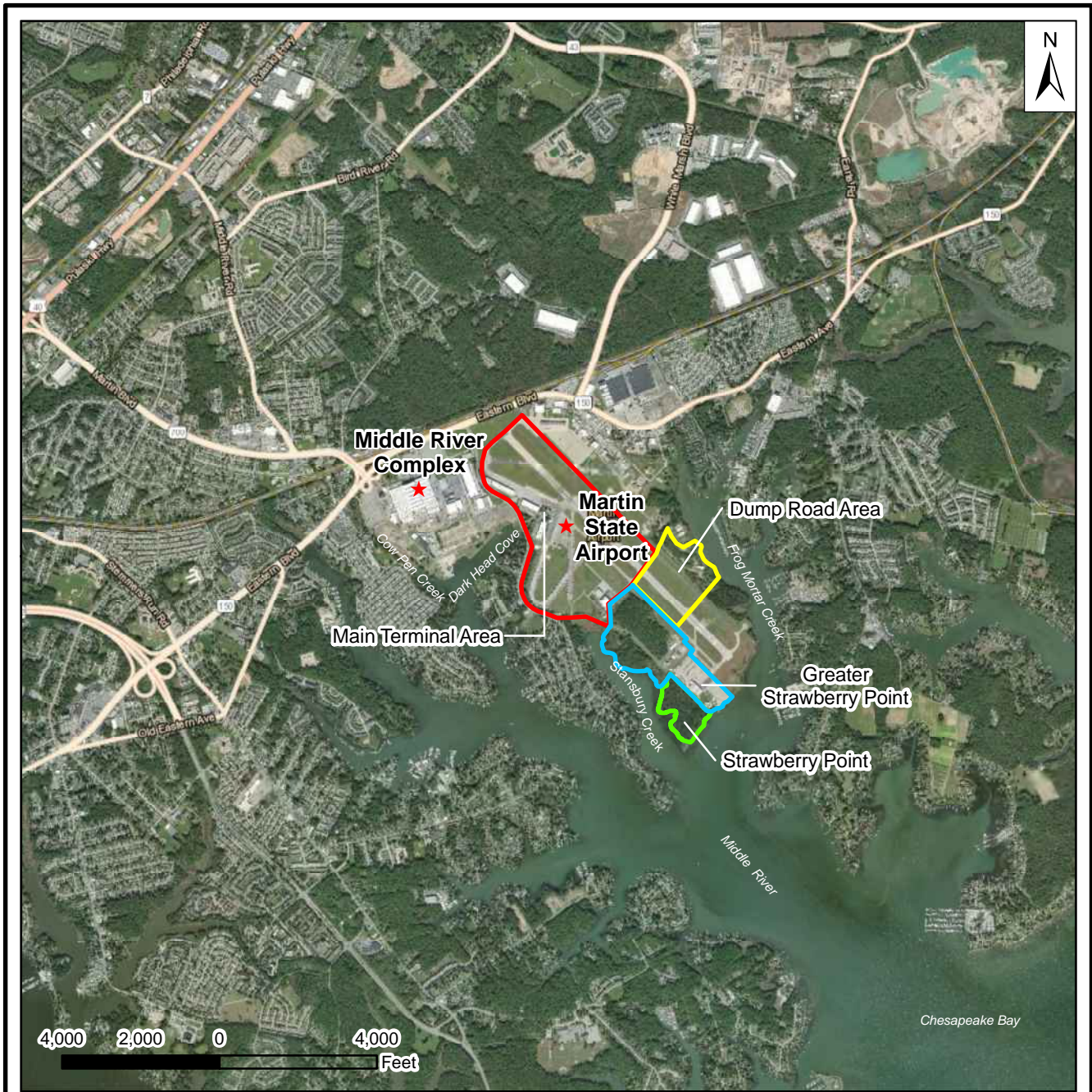
Figure 4-11 Concentrations of Total Metals Exceeding Groundwater Standards, 2022—Intermediate Surficial Aquifer, Dump Road Area

Figure 4-12 Concentrations of Dissolved Metals Exceeding Groundwater Standards, 2022—Intermediate Surficial Aquifer, Dump Road Area

Figure 4-13 Concentrations of Total and Dissolved Metals Exceeding Groundwater Standards, 2022—Lower Surficial and Deep Confined Aquifers, Dump Road Area

Figure 4-14 Concentrations of Petroleum Hydrocarbons Exceeding Groundwater Standards, 2022—Upper Surficial Aquifer, Dump Road Area





Aerial photograph provided by ESRI's ArcGIS Online World Imagery map service (© 2017 ESRI and its data suppliers).

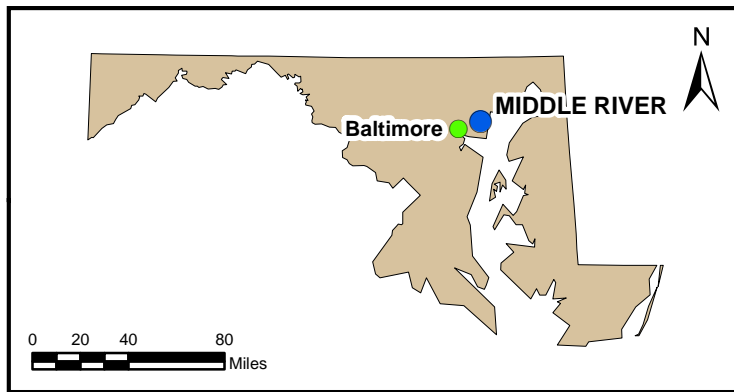


FIGURE 1-1

**MARTIN STATE AIRPORT
SITE LOCATION MAP**

*Lockheed Martin, Martin State Airport
Middle River, Maryland*

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2017 aerial photograph provided by the State of Maryland.

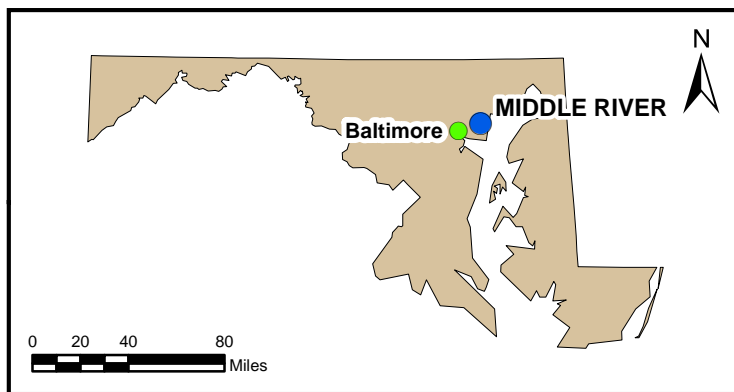


FIGURE 2-1

MARTIN STATE AIRPORT AND SURROUNDING FEATURES

*Lockheed Martin, Martin State Airport
Middle River, Maryland*

DATE MODIFIED: 09/12/18

CREATED BY: JEE



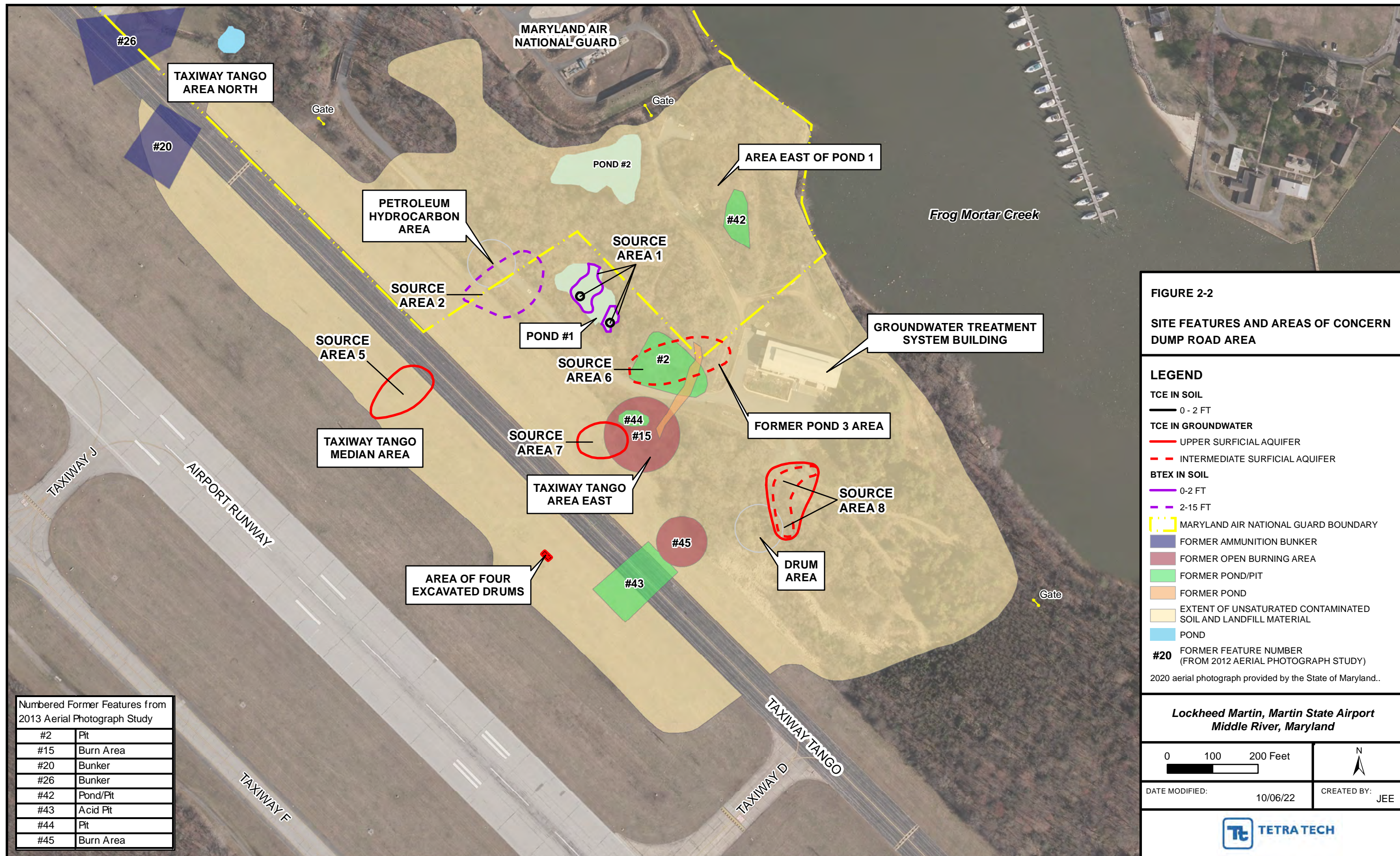


FIGURE 2-2
SITE FEATURES AND AREAS OF CONCERN
DUMP ROAD AREA

LEGEND

TCE IN SOIL
 — 0-2 FT

TCE IN GROUNDWATER
 — UPPER SURFICIAL AQUIFER
 - - INTERMEDIATE SURFICIAL AQUIFER

BTEX IN SOIL
 — 0-2 FT
 - - 2-15 FT

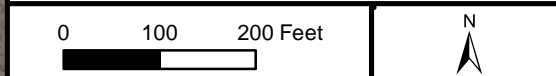
— MARYLAND AIR NATIONAL GUARD BOUNDARY
 ■ FORMER AMMUNITION BUNKER
 ■ FORMER OPEN BURNING AREA
 ■ FORMER POND/PIT
 ■ FORMER POND
 ■ EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
 ■ POND

#20 FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)
 2020 aerial photograph provided by the State of Maryland..

Numbered Former Features from 2013 Aerial Photograph Study

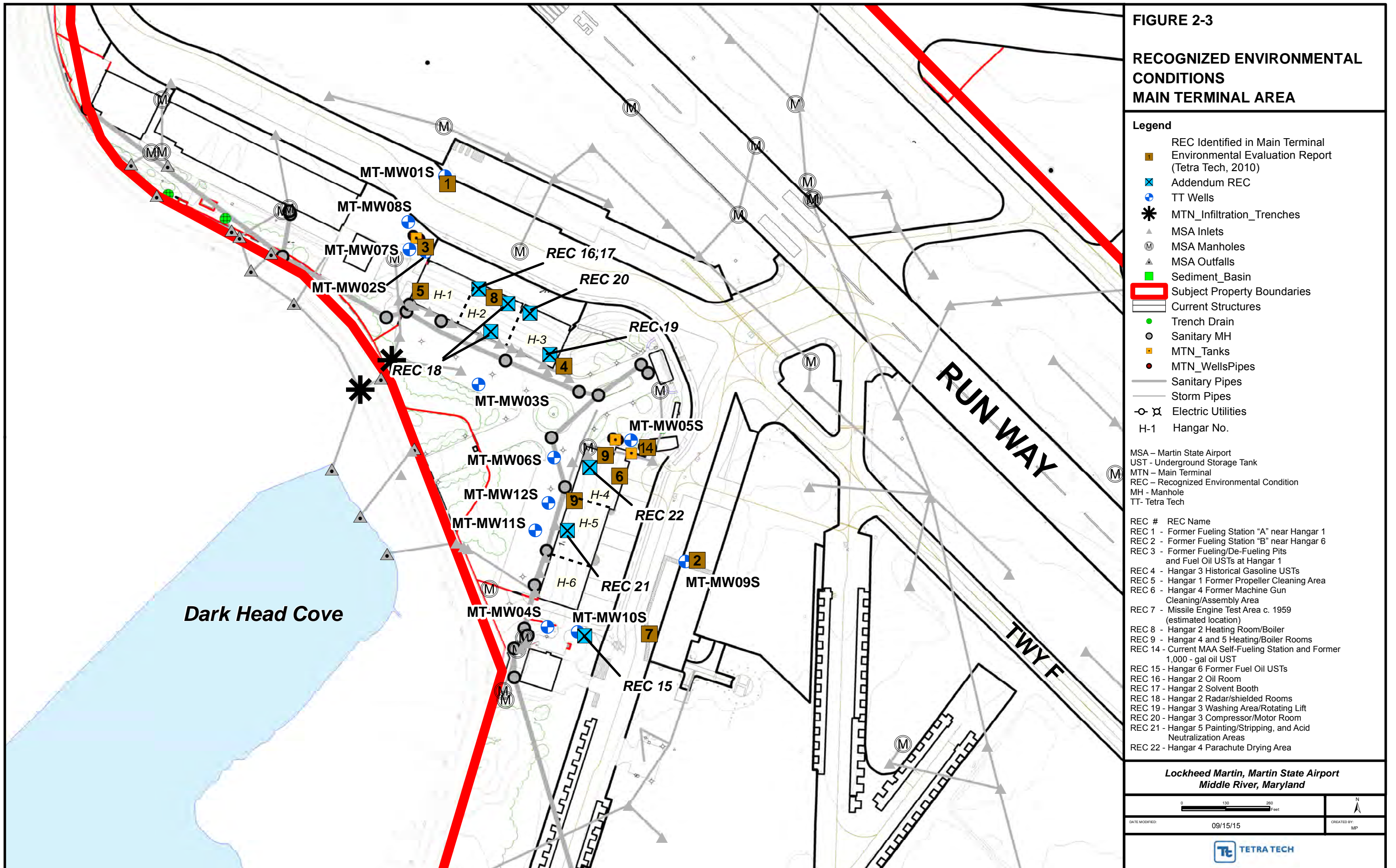
#2	Pit
#15	Burn Area
#20	Bunker
#26	Bunker
#42	Pond/Pit
#43	Acid Pit
#44	Pit
#45	Burn Area

Lockheed Martin, Martin State Airport
Middle River, Maryland



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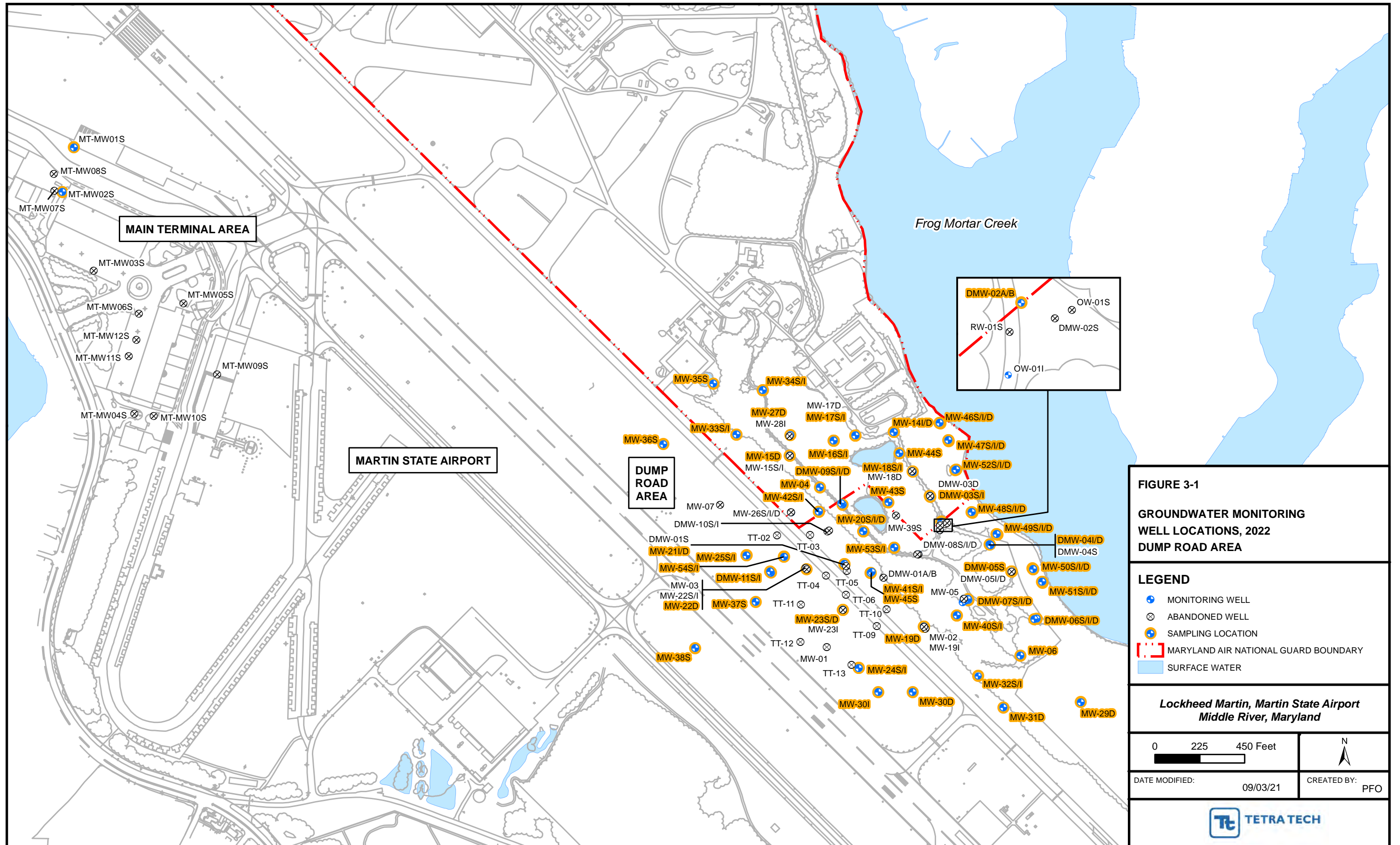


FIGURE 3-1
GROUNDWATER MONITORING WELL LOCATIONS, 2022 DUMP ROAD AREA

LEGEND

- + MONITORING WELL
- ⊗ ABANDONED WELL
- + SAMPLING LOCATION
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- SURFACE WATER

**Lockheed Martin, Martin State Airport
 Middle River, Maryland**

0 225 450 Feet

DATE MODIFIED: 09/03/21 CREATED BY: PFO

Tt TETRA TECH

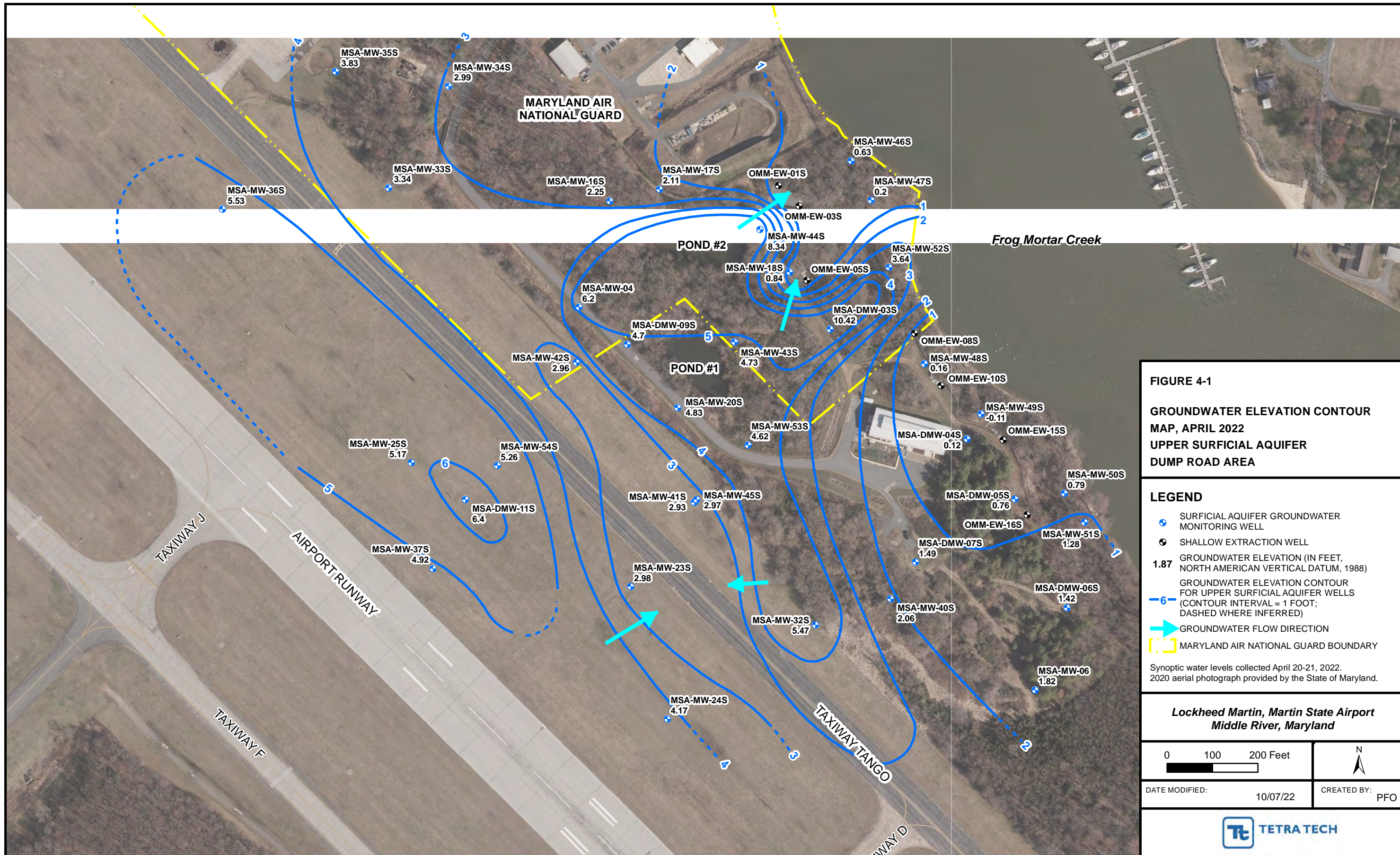
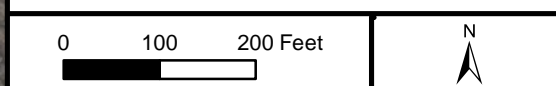


FIGURE 4-1
GROUNDWATER ELEVATION CONTOUR
MAP, APRIL 2022
UPPER SURFICIAL AQUIFER
DUMP ROAD AREA

- LEGEND**
- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
 - SHALLOW EXTRACTION WELL
 - 1.87** GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN VERTICAL DATUM, 1988)
 - GROUNDWATER ELEVATION CONTOUR FOR UPPER SURFICIAL AQUIFER WELLS (CONTOUR INTERVAL = 1 FOOT; DASHED WHERE INFERRED)
 - GROUNDWATER FLOW DIRECTION
 - MARYLAND AIR NATIONAL GUARD BOUNDARY

Synoptic water levels collected April 20-21, 2022.
 2020 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland



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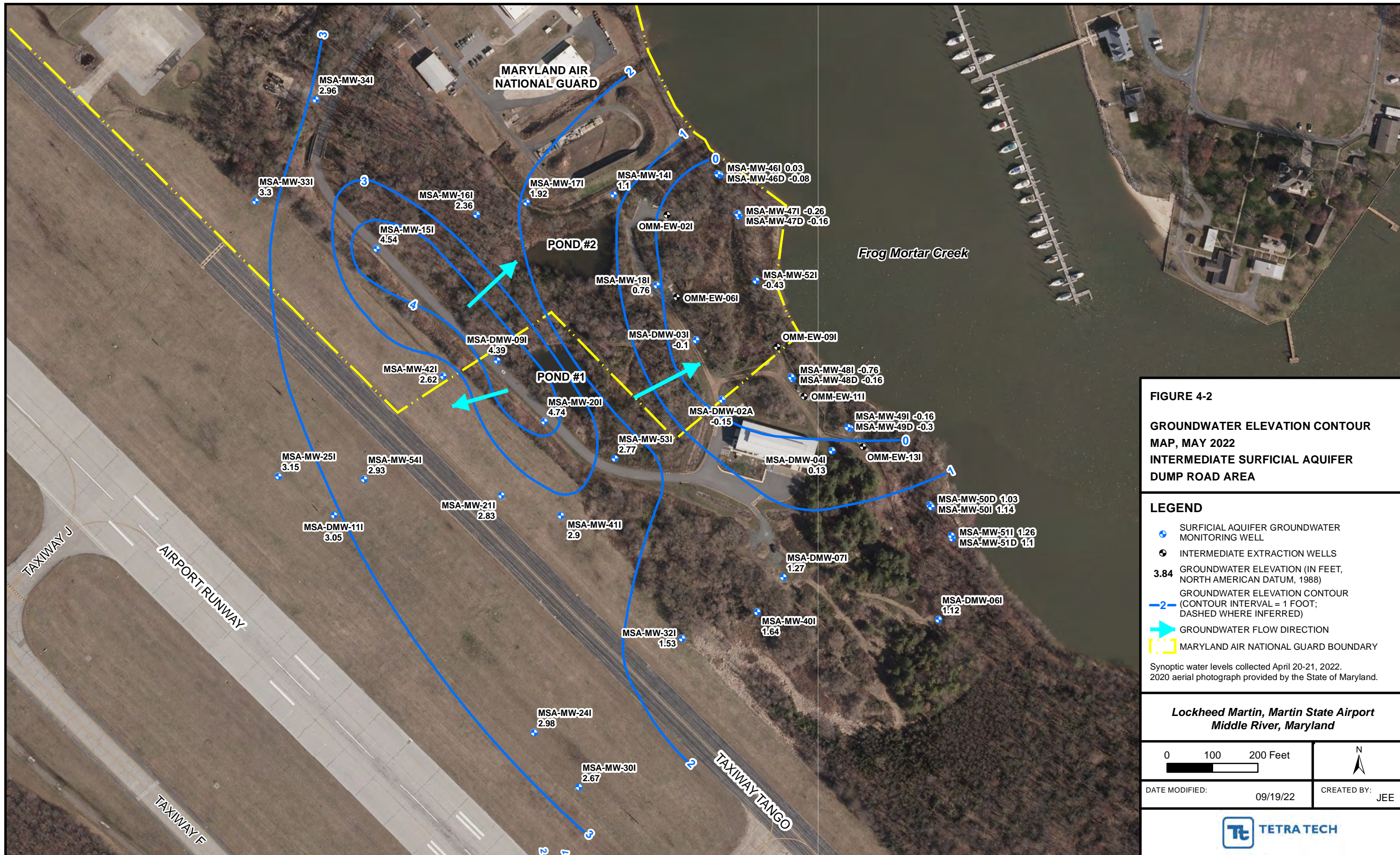
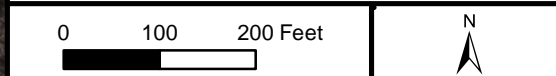


FIGURE 4-2
GROUNDWATER ELEVATION CONTOUR
MAP, MAY 2022
INTERMEDIATE SURFICIAL AQUIFER
DUMP ROAD AREA

- LEGEND**
- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
 - INTERMEDIATE EXTRACTION WELLS
 - 3.84** GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN DATUM, 1988)
 - GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL = 1 FOOT; DASHED WHERE INFERRED)
 - GROUNDWATER FLOW DIRECTION
 - MARYLAND AIR NATIONAL GUARD BOUNDARY

Synoptic water levels collected April 20-21, 2022.
 2020 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland



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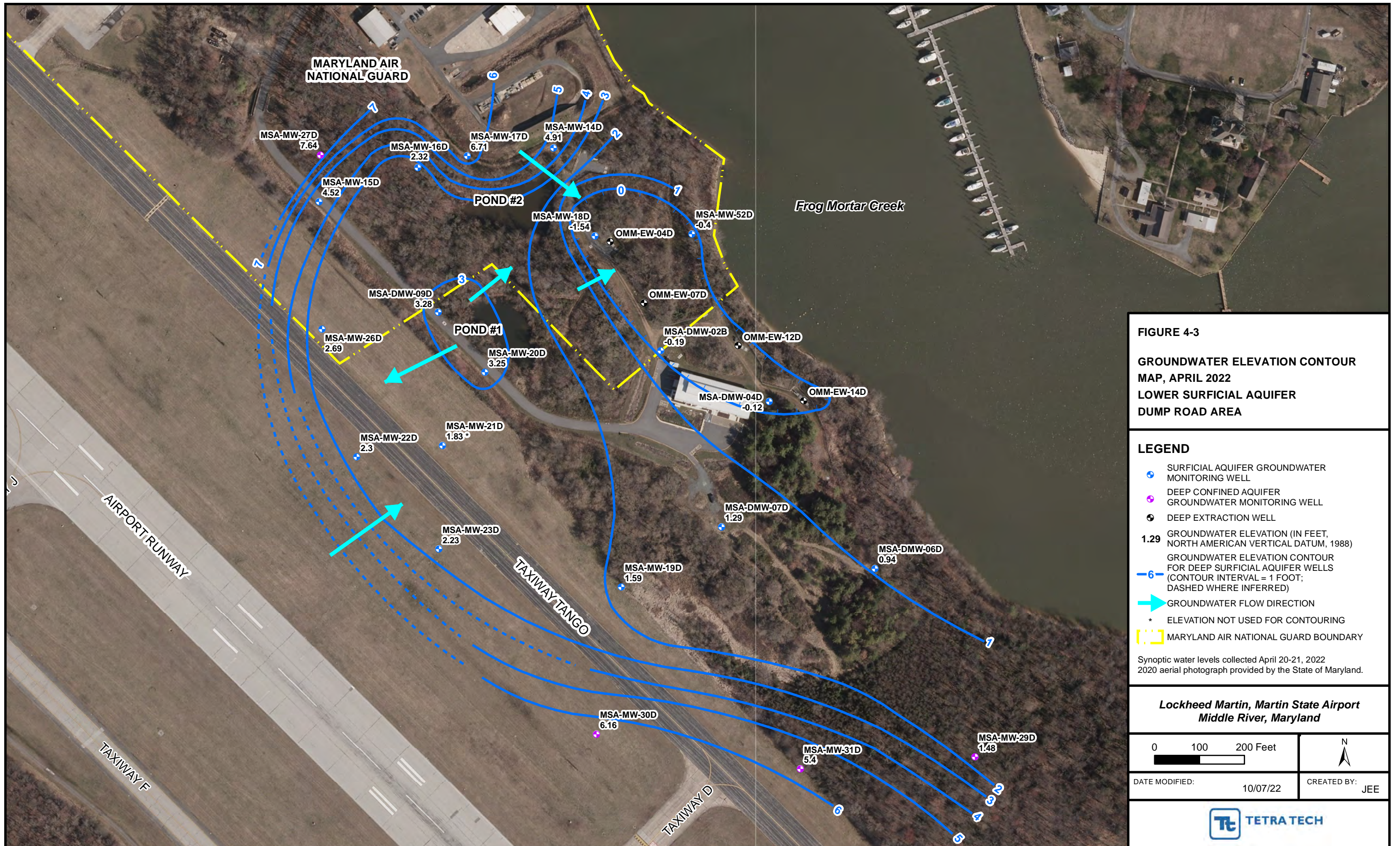
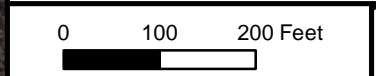


FIGURE 4-3
GROUNDWATER ELEVATION CONTOUR
MAP, APRIL 2022
LOWER SURFICIAL AQUIFER
DUMP ROAD AREA

- LEGEND**
- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
 - DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
 - DEEP EXTRACTION WELL
 - 1.29 GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN VERTICAL DATUM, 1988)
 - GROUNDWATER ELEVATION CONTOUR FOR DEEP SURFICIAL AQUIFER WELLS (CONTOUR INTERVAL = 1 FOOT; DASHED WHERE INFERRED)
 - GROUNDWATER FLOW DIRECTION
 - * ELEVATION NOT USED FOR CONTOURING
 - MARYLAND AIR NATIONAL GUARD BOUNDARY

Synoptic water levels collected April 20-21, 2022
 2020 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland



DATE MODIFIED: 10/07/22

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FIGURE 4-5
CONCENTRATIONS OF TRICHLOROETHENE, CIS-1,2-DICHLOROETHENE AND VINYL CHLORIDE EXCEEDING GROUNDWATER STANDARDS, 2022
INTERMEDIATE SURFICIAL AQUIFER DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

Samples collected April 20-21, 2022.
 All results in micrograms per liter (µg/L).
 cDCE = cis-1,2-Dichloroethene.
 J = Estimated value.
 TCE = Trichloroethene.
 VC = Vinyl chloride.

Screening Levels:

- cis-1,2-Dichloroethene: 70 µg/L.
- Trichloroethene: 5 µg/L.
- Vinyl chloride: 2 µg/L.

2020 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland



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FIGURE 4-6
CONCENTRATIONS OF TRICHLOROETHENE, CIS-1,2-DICHLOROETHENE AND VINYL CHLORIDE EXCEEDING GROUNDWATER STANDARDS, 2022
LOWER SURFICIAL AND DEEP CONFINED AQUIFERS, DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

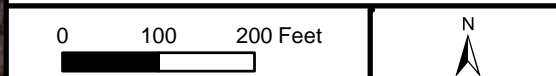
Samples collected April 20-21, 2022.
 All results in micrograms per liter (µg/L).
 cDCE = cis-1,2-Dichloroethene.
 J = Estimated value.
 TCE = Trichloroethene.
 VC = Vinyl chloride.

Screening Levels:

- cis-1,2-Dichloroethene: 70 µg/L.
- Trichloroethene: 5 µg/L.
- Vinyl chloride: 2 µg/L.

2020 aerial photograph provided by the State of Maryland.

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Middle River, Maryland



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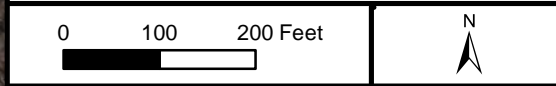
FIGURE 4-7
CONCENTRATIONS OF BENZENE EXCEEDING THE GROUNDWATER STANDARD, 2022 DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- ▭ MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated value.
 All results in micrograms per liter (µg/L).
 Screening level for benzene is 5 µg/L.
 2020 aerial photograph provided by the State of Maryland.

**Lockheed Martin, Martin State Airport
 Middle River, Maryland**



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FIGURE 4-8
CONCENTRATIONS OF 1,4-DIOXANE
EXCEEDING THE GROUNDWATER
STANDARD, 2022
DUMP ROAD AREA

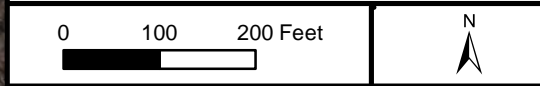
LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

The U.S. Environmental Protection Agency Regional Screening Level for 1,4-dioxane (0.46 µg/L) was used as the criterion to determine exceedances.

J = estimated value.
 J- = estimated value, biased low.
 All results in micrograms per liter (µg/L).
 2020 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland



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FIGURE 4-9
CONCENTRATIONS OF TOTAL METALS EXCEEDING GROUNDWATER STANDARDS, 2022
UPPER SURFICIAL AQUIFER DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated value.
 All results in micrograms per liter (µg/L).

Screening Levels:

- Arsenic: 6 µg/L	- Mercury: 2 µg/L
- Beryllium: 4 µg/L	- Nickel: 39 µg/L
- Cadmium: 5 µg/L	- Zinc: 600 µg/L
- Chromium: 100 µg/L	- Hexavalent Chromium: 0.035 µg/L
- Lead: 15 µg/L	

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MSA-MW-24S	
BERYLLIUM	8.6 J
CHROMIUM	110
LEAD	37
MERCURY	2.6
NICKEL	880 J
ZINC	1900 J

MSA-MW-41S	
CADMIUM	67
NICKEL	89
ZINC	720

MSA-MW-45S	
CADMIUM	81
NICKEL	110
ZINC	830

MSA-MW-54S	
ARSENIC	14
CADMIUM	19

MSA-MW-48S	
HEXAVALENT CHROMIUM	0.24

MSA-DMW-03S	
ARSENIC	13

MSA-MW-17S	
NICKEL	43

MSA-MW-34S	
NICKEL	180

MSA-MW-35S	
NICKEL	120



FIGURE 4-10
CONCENTRATIONS OF DISSOLVED METALS EXCEEDING GROUNDWATER STANDARDS, 2022
UPPER SURFICIAL AQUIFER DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- ▭ MARYLAND AIR NATIONAL GUARD BOUNDARY

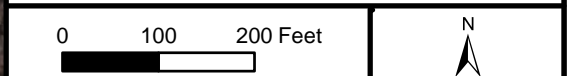
J = estimated value.
All results in micrograms per liter (µg/L).

Screening Levels:

- Arsenic: 6 µg/L.
- Beryllium: 4 µg/L.
- Cadmium: 5 µg/L.
- Nickel: 39 µg/L.
- Zinc: 600 µg/L.
- Hexavalent Chromium: 0.035 µg/L.

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Middle River, Maryland



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FIGURE 4-11
CONCENTRATIONS OF TOTAL METALS EXCEEDING GROUNDWATER STANDARDS, 2022
INTERMEDIATE SURFICIAL AQUIFER DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

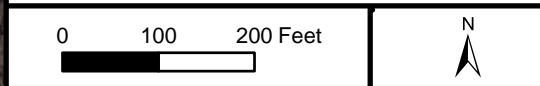
All results in micrograms per liter (µg/L).

Screening Levels:

- Arsenic: 6 µg/L.
- Cadmium: 5 µg/L.
- Beryllium: 4 µg/L.
- Nickel: 39 µg/L.

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Middle River, Maryland



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FIGURE 4-13
CONCENTRATIONS OF TOTAL AND DISSOLVED METALS EXCEEDING GROUNDWATER STANDARDS, 2022 LOWER SURFICIAL AND DEEP CONFINED AQUIFERS, DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

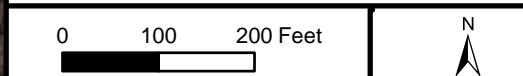
All results in micrograms per liter (µg/L).

Screening Levels:

- Beryllium: 4 µg/L.
- Cadmium: 5 µg/L.
- Mercury: 2 µg/L.
- Nickel: 39 µg/L.
- Hexavalent Chromium: 0.035 µg/L.

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FIGURE 4-14
CONCENTRATIONS OF PETROLEUM HYDROCARBONS EXCEEDING GROUNDWATER STANDARDS, 2022 UPPER SURFICIAL AQUIFER DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD

J = estimated sample.
 TPH = Total petroleum hydrocarbons.
 DRO = Diesel range organics.
 GRO = Gasoline range organics.
 All results in micrograms per liter (µg/L).

Screening Levels:
 - TPH-DRO: 47 µg/L. - TPH-GRO: 47 µg/L.

2020 aerial photograph provided by the State of Maryland.

**Lockheed Martin, Martin State Airport
 Middle River, Maryland**



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TABLES

**Table 3-1 Chemical Analyses and Laboratory Analytical Methods
for Wells Sampled in 2022**

Table 4-1 Groundwater Levels and Elevations, April 20-21, 2022

Table 4-2 Statistical Summary of Dump Road Area Groundwater Sampling Results—2022

**Table 4-3 Detected Analytes and Screening-Criteria Exceedances for
Groundwater Samples—2022, Dump Road Area**

Table 3-1

Chemical Analyses and Laboratory Analytical Methods for Wells Sampled in 2022
 Lockheed Martin, Martin State Airport, Middle River, Maryland
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Monitoring Well	Analytical Requirements							
	VOCs (TICs, Freon 22, Freon 113)	1,4-Dioxane	Hexavalent Chromium ¹	Total PPM	Dissolved PPM	Mercury	GRO and DRO	Radium 224, 226, and 228
	(USEPA 8260)	(USEPA 8270 SIM)	(218.6)	(USEPA 6020)	(USEPA 6020)	(USEPA 7470)	(USEPA 8015)	(USEPA 900 Series)
Lower Surficial-Aquifer								
DMW-2B	X	X						
DMW-4D	X	X		X	X	X		
DMW-6D	X	X		X	X	X		X
DMW-7D				X	X	X		
DMW-9D	X	X		X	X	X		
MW-14D	X	X	X					
MW-15D	X	X	X	X	X	X		
MW-16D	X	X	X	X	X	X		X
MW-19D	X	X		X	X	X		
MW-20D	X	X		X	X	X		
MW-21D	X	X		X	X	X		
MW-22D	X	X		X	X	X		
MW-23D	X	X		X	X	X		
MW-46D	X	X	X	X	X	X		
MW-47D	X	X	X	X	X	X		
MW-48D	X	X	X	X	X	X		
MW-49D	X	X	X	X	X	X		
MW-50D	X	X	X	X	X	X		
MW-51D	X	X	X	X	X	X		
MW-52D	X	X	X	X	X	X		
Deep Wells								
MW-27D	X	X		X	X	X		
MW-29D	X	X	X	X	X	X		X
MW-30D	X	X	X					
MW-31D			X	X	X	X		
2022 Totals (94 wells)	84	84	33	86	86	86	38	7

Notes:

1. Hexavalent chromium will be analyzed by USEPA Method 218.6 (ion chromatography) with a specified detection limit of 0.005 ug/L which is lower than the method's published detection limit of 0.10 ug/L.

2. MW-16D (total/dissolved metals) and MW-34I (TPH DRO/GRO) were sampled for analytes not stated in the work plan and are denoted with a bolded X

Abbreviations:

µg/L - micrograms per liter
 DRO - diesel-range organics
 GRO - gasoline-range organics
 mL - milliliter

PPM - priority pollutant metals
 TICs - tentatively identified compounds
 USEPA - Unites States Environmental Protection Agency
 VOCs - volatile organic compounds

Table 4-1
Groundwater Levels and Elevations—April 20-21, 2022
Dump Road Area, Martin State Airport
Middle River, Maryland
Page 1 of 3

Well ID	Aquifer level	Elevation- top of well casing NAVD88 ⁽¹⁾ (feet)	Depth to groundwater- top of well casing (feet)	Groundwater elevation NAVD88 ⁽¹⁾ (feet)
Dump Road Area - upper surficial aquifer				
MSA-DMW-03S	S	16.52	6.1	10.42
MSA-DMW-04S	S	20.52	20.4	0.12
MSA-DMW-05S	S	21.34	20.58	0.76
MSA-DMW-06S	S	18.62	17.2	1.42
MSA-DMW-07S	S	21.84	20.35	1.49
MSA-DMW-09S	S	11.45	6.75	4.7
MSA-DMW-11S	S	9.2	2.8	6.4
MSA-MW-16S	S	10.2	7.95	2.25
MSA-MW-17S	S	7.61	5.5	2.11
MSA-MW-18S	S	8.89	8.05	0.84
MSA-MW-20S	S	12.44	7.61	4.83
MSA-MW-23S	S	10.01	7.03	2.98
MSA-MW-24S	S	7.72	3.55	4.17
MSA-MW-25S	S	9.69	4.52	5.17
MSA-MW-32S	S	7.27	1.8	5.47
MSA-MW-33S	S	9.97	6.63	3.34
MSA-MW-34S	S	7.89	4.9	2.99
MSA-MW-35S	S	12.63	8.8	3.83
MSA-MW-36S	S	11.88	6.35	5.53
MSA-MW-37S	S	10.7	5.78	4.92
MSA-MW-4	S	10.34	4.14	6.2
MSA-MW-40S	S	17.48	15.42	2.06
MSA-MW-41S	S	10.23	7.3	2.93
MSA-MW-42S	S	8.88	5.92	2.96
MSA-MW-43S	S	18.08	13.35	4.73
MSA-MW-44S	S	9.21	0.87	8.34
MSA-MW-45S	S	10.03	7.06	2.97
MSA-MW-46S	S	11.26	10.63	0.63
MSA-MW-47S	S	11.96	11.76	0.2
MSA-MW-48S	S	19.92	19.76	0.16
MSA-MW-49S	S	19.84	19.95	-0.11
MSA-MW-50S	S	12.55	11.76	0.79
MSA-MW-51S	S	9.69	8.41	1.28
MSA-MW-52S	S	13.24	9.6	3.64
Dump Road Area - upper surficial aquifer (continued)				
MSA-MW-53S	S	14.37	9.75	4.62
MSA-MW-54S	S	10.75	5.49	5.26
MSA-MW-6	S	15.72	13.9	1.82

Table 4-1
Groundwater Levels and Elevations—April 20-21, 2022
Dump Road Area, Martin State Airport
Middle River, Maryland
Page 2 of 3

Well ID	Aquifer level	Elevation- top of well casing NAVD88 ⁽¹⁾ (feet)	Depth to groundwater- top of well casing (feet)	Groundwater elevation NAVD88 ⁽¹⁾ (feet)
Dump Road Area - intermediate surficial aquifer				
MSA-DMW-03I	I	16.45	16.55	-0.1
MSA-DMW-04I	I	20.48	20.35	0.13
MSA-DMW-06I	I	18.64	17.52	1.12
MSA-DMW-07I	I	21.9	20.63	1.27
MSA-DMW-09I	I	11.4	7.01	4.39
MSA-DMW-11I	I	9.15	6.1	3.05
MSA-DMW-2A	I	21.65	21.8	-0.15
MSA-MW-14I	I	11.72	10.62	1.1
MSA-MW-15I	I	8.79	4.25	4.54
MSA-MW-16I	I	10.06	7.7	2.36
MSA-MW-17I	I	7.68	5.76	1.92
MSA-MW-18I	I	8.91	8.15	0.76
MSA-MW-20I	I	12.39	7.65	4.74
MSA-MW-21I	I	10.83	8	2.83
MSA-MW-24I	I	7.68	4.7	2.98
MSA-MW-25I	I	9.72	6.57	3.15
MSA-MW-30I	I	7.52	4.85	2.67
MSA-MW-32I	I	7.28	5.75	1.53
MSA-MW-33I	I	10.02	6.72	3.3
MSA-MW-34I	I	7.88	4.92	2.96
MSA-MW-40I	I	17.59	15.95	1.64
MSA-MW-41I	I	10.23	7.33	2.9
MSA-MW-42I	I	8.87	6.25	2.62
MSA-MW-46D	I	11.67	11.75	-0.08
MSA-MW-46I	I	11.19	11.16	0.03
MSA-MW-47D	I	12.04	12.2	-0.16
MSA-MW-47I	I	11.94	12.2	-0.26
MSA-MW-48D	I	20.12	20.28	-0.16
MSA-MW-48I	I	19.94	20.7	-0.76
MSA-MW-49D	I	19.6	19.9	-0.3
MSA-MW-49I	I	19.59	19.75	-0.16
Dump Road Area - intermediate surficial aquifer (continued)				
MSA-MW-50D	I	13.12	12.09	1.03
MSA-MW-50I	I	12.64	11.5	1.14
MSA-MW-51D	I	9.55	8.45	1.1
MSA-MW-51I	I	9.61	8.35	1.26
MSA-MW-52I	I	13.27	13.7	-0.43
MSA-MW-53I	I	14.39	11.62	2.77
MSA-MW-54I	I	10.83	7.9	2.93
Dump Road Area - lower surficial aquifer				

Table 4-1
Groundwater Levels and Elevations—April 20-21, 2022
Dump Road Area, Martin State Airport
Middle River, Maryland
Page 3 of 3

Well ID	Aquifer level	Elevation- top of well casing NAVD88 ⁽¹⁾ (feet)	Depth to groundwater- top of well casing (feet)	Groundwater elevation NAVD88 ⁽¹⁾ (feet)
MSA-DMW-04D	D	20.44	20.56	-0.12
MSA-DMW-06D	D	18.51	17.57	0.94
MSA-DMW-07D	D	21.94	20.65	1.29
MSA-DMW-09D	D	11.41	8.13	3.28
MSA-DMW-2B	D	21.66	21.85	-0.19
MSA-MW-14D	D1	11.56	6.65	4.91
MSA-MW-15D	D	8.77	4.25	4.52
MSA-MW-16D	D	10.22	7.9	2.32
MSA-MW-17D	D	7.56	0.85	6.71
MSA-MW-18D	D	8.88	10.42	-1.54
MSA-MW-19D	D	7.94	6.35	1.59
MSA-MW-20D	D	12.4	9.15	3.25
MSA-MW-21D	D	10.78	8.95	1.83
MSA-MW-22D	D	11.02	8.72	2.3
MSA-MW-23D	D	10.03	7.8	2.23
MSA-MW-26D	D	11.66	8.97	2.69
MSA-MW-52D	D	13.04	13.44	-0.4
Dump Road Area - deep confined aquifer				
MSA-MW-27D	DD	8.39	0.75	7.64
MSA-MW-29D	DD	11.43	9.95	1.48
MSA-MW-30D	DD	8.26	2.1	6.16
MSA-MW-31D	DD	6.95	1.55	5.4

Synoptic groundwater-level measurements were collected on April 20-21, 2022.

1 Based on an October 2010 survey of all Dump Road Area wells

"--" - not available

D - lower surficial aquifer

D1 - aquitard beneath lower surficial aquifer

DD - Deep confined aquifer below the lower surficial aquifer

I - intermediate surficial aquifer

MSA - Martin State Airport

NAVD88 = North American Vertical Datum of 1988

NM - not measured

S - upper surficial aquifer

SW - surface water

Table 4-2
 Statistical Summary of Dump Road Area Groundwater Sampling Results - 2022
 Martin State Airport, Middle River, Maryland
 Page 1 of 1

Parameter	Annual (2022) DRA Martin State Airport Groundwater Samples											
	Frequency of Detection		Minimum concentration (detects)	Maximum concentration (detects)	Location of maximum detected concentration	Sample with maximum detected concentration	Minimum concentration (nondetects)	Maximum concentration (nondetects)	Average of detected results	Average of all results	Standard deviation	Sample Date
	Number	Percent										
Volatile organic compounds (µg/L)												
1,1,1-TRICHLOROETHANE	3/84	4	4.1	10 J	MSA-MW-48D	MSA-MW-48D-052422	0.48	480	6.5	11.35	39.11	20220524
1,1,2-TRICHLOROTRIFLUOROETHANE	2/84	2	0.59 J	1.3	MSA-DMW-04I	MSA-DMW-4I-051922	0.41	410	0.95	9.60	33.51	20220519
1,1-DICHLOROETHANE	4/84	5	0.73 J	6.1	MSA-DMW-04I	MSA-DMW-4I-051922	0.47	470	3.56	11.16	38.37	20220519
1,1-DICHLOROETHENE	7/84	8	2.3	140	MSA-DMW-11S	MSA-DMW-11S-060922	0.49	490	29.87	13.59	42.31	20220609
1,2,3-TRIMETHYLBENZENE	6/84	7	1 J	15 J	MSA-DMW-09S	MSA-DMW-09S-051722	0.31	310	5.3	7.54	25.34	20220517
1,2,4-TRICHLOROBENZENE	2/84	2	2.4	57	MSA-MW-52I	MSA-MW-52I-061622	0.77	770	29.7	18.42	62.96	20220616
1,2,4-TRIMETHYLBENZENE	3/84	4	2.3	31 J	MSA-DMW-09S	MSA-DMW-09S-051722	0.52	520	15.43	12.50	42.38	20220517
1,2-DICHLOROBENZENE	3/84	4	2.1	3.5	MSA-DMW-03S	MSA-DMW-3S-051922	0.48	480	2.6	11.27	39.12	20220519
1,2-DICHLOROETHANE	24/84	29	0.25 J	61 J	MSA-MW-45S	MSA-MW-45S-060722	0.21	210	12.18	7.88	19.50	20220607
1,3-DICHLOROBENZENE	1/84	1	5.5	5.5	MSA-MW-48I	MSA-MW-48I-052422	0.45	450	5.5	10.60	36.76	20220524
1,4-DICHLOROBENZENE	5/84	6	3.9 J	35	MSA-MW-48I	MSA-MW-48I-052422	0.41	410	18.78	10.54	33.64	20220524
2-BUTANONE	2/84	2	1.2 J	1.2 J	MSA-MW-52S	MSA-MW-52S-061622	1.2	1200	1.2	27.62	97.41	20220616
2-BUTANONE	2/84	2	1.2 J	1.2 J	MSA-MW-42S	MSA-MW-42S-060222	1.2	1200	1.2	27.62	97.41	20220602
4-ISOPROPYLTOLUENE	1/84	1	0.57 J	0.57 J	MSA-MW-42S	MSA-MW-42S-060222	0.56	560	0.57	13.02	45.64	20220602
ACETONE	2/84	2	5.4 J	11	MSA-MW-42S	MSA-MW-42S-060222	5.4	5400	8.2	126.61	440.46	20220602
BENZENE	17/84	20	0.54 J	97	MSA-DMW-09S	MSA-DMW-09S-051722	0.42	420	16.89	12.41	35.88	20220517
CARBON TETRACHLORIDE	6/84	7	2.5	7,200	MSA-MW-54I	MSA-MW-54I-060922	0.26	130	1382.42	101.61	790.68	20220609
CHLOROBENZENE	17/84	20	0.42 J	580	MSA-MW-41I	MSA-MW-41I-060222	0.38	380	67.01	21.88	75.95	20220602
CHLOROFORM	8/84	10	0.47 J	1,700	MSA-MW-54I	MSA-MW-54I-060922	0.47	240	409.70	44.03	232.14	20220609
CIS-1,2-DICHLOROETHENE	64/84	76	0.5 J	23,000	MSA-MW-54S	MSA-MW-54S-060922	0.46	18	1342.37	1022.94	3442.89	20220609
DIISOPROPYL ETHER	3/84	4	0.39 J	2.8 J	MSA-MW-16S	MSA-MW-16S-052522	0.17	170	1.43	4.01	13.85	20220525
ETHYLBENZENE	4/84	5	1.4	240	MSA-DMW-09S	MSA-DMW-09S-051722	0.42	420	73.725	13.21	42.60	20220517
ISOPROPYLBENZENE	2/84	2	0.54 J	1.1	MSA-MW-42S	MSA-MW-42S-060222	0.49	490	0.82	11.50	40.03	20220602
M+P-XYLENES	8/84	10	1.1 J	2,200	MSA-DMW-09S	MSA-DMW-09S-051722	0.42	420	380.44	45.72	253.22	20220517
METHYLENE CHLORIDE	2/84	2	3.1 J	120 J	MSA-MW-41S	MSA-MW-41S-060222	2.6	2600	61.55	61.31	212.09	20220602
N-PROPYLBENZENE	1/84	1	0.76 J	0.76 J	MSA-MW-42S	MSA-MW-42S-060222	0.57	570	0.76	13.29	46.51	20220602
NAPHTHALENE	4/84	5	1.3	160 J	MSA-DMW-07S	MSA-DMW-7S-052022	0.8	800	71.225	21.08	67.54	20220520
O-XYLENE	8/84	10	0.51 J	240	MSA-DMW-09S	MSA-DMW-09S-051722	0.42	420	45.25	13.99	43.72	20220517
SEC-BUTYLBENZENE	3/84	4	0.53 J	0.58 J	MSA-DMW-05S	MSA-DMW-5S-051922	0.53	530	0.56	12.46	43.34	20220519
TERTIARY-BUTYL ALCOHOL	4/84	5	9.5 J	96	MSA-MW-52S	MSA-MW-52S-061622	7.2	7200	37.13	169.05	586.27	20220616
TETRACHLOROETHENE	2/84	2	4.2	6.5	MSA-DMW-04I	MSA-DMW-4I-051922	0.44	440	5.35	10.41	35.85	20220519
TOLUENE	8/84	10	4.1	6,900	MSA-MW-54S	MSA-MW-54S-060922	0.44	220	1126.76	111.72	772.42	20220609
TOTAL XYLENES	10/84	12	1.1 J	2,400	MSA-DMW-09S	MSA-DMW-09S-051722	0.42	420	336.55	49.55	277.39	20220517
TRANS-1,2-DICHLOROETHENE	12/84	14	0.51 J	220 J	MSA-DMW-03S	MSA-DMW-3S-051922	0.51	510	29.69	15.89	47.68	20220519
TRICHLOROETHENE	56/84	67	0.61 J	20,000	MSA-MW-54I	MSA-MW-54I-060922	0.44	22	1373.35	915.88	2708.08	20220609
VINYL CHLORIDE	54/84	64	0.54 J	6,800	MSA-DMW-11S	MSA-DMW-11S-060922	0.45	450	599.56	388.43	1198.53	20220609
Semivolatile organic compounds (µg/L)												
1,4-DIOXANE	41/84	49	1	450	MSA-MW-45S	MSA-MW-45S-060722	0.36	0.42	48.85	23.94	63.25	20220607
Metals, total (µg/L)												
ANTIMONY	6/86	7	0.61 J	3.1	MSA-MW-24S	MSA-MW-24S-060822	0.57	0.57	1.24	0.35	0.33	20220608
ARSENIC	46/86	53	0.78 J	19	MSA-MW-14I	MSA-MW-14I-052622	0.75	0.75	4.63	2.65	3.85	20220526
BERYLLIUM	32/86	37	0.62 J	8.6 J	MSA-MW-24S	MSA-MW-24S-060822	0.62	0.62	2.67	1.19	1.67	20220608
CADMIUM	44/86	51	0.21 J	800	MSA-DMW-03I	MSA-DMW-3I-052322	0.2	0.2	46.42	23.80	99.80	20220523
CHROMIUM	26/86	30	2.5 J	110	MSA-MW-24S	MSA-MW-24S-060822	2.5	2.5	9.35	3.70	11.95	20220608
COPPER	54/86	63	1.7 J	1,300 J	MSA-MW-24S	MSA-MW-24S-060822	1.7	1.7	45.11	28.64	143.35	20220608
LEAD	42/86	49	0.51 J	37	MSA-MW-24S	MSA-MW-24S-060822	0.45	0.45	2.23	1.20	4.01	20220608
MERCURY	26/86	30	0.13 J	3.2	MSA-DMW-04D	MSA-DMW-4D-051922	0.13	0.17	0.61	0.23	0.52	20220519
NICKEL	71/86	83	1.5 J	880 J	MSA-MW-24S	MSA-MW-24S-060822	1.5	1.5	54.42	45.06	103.09	20220608
SELENIUM	24/86	28	0.91 J	20 J	MSA-MW-24S	MSA-MW-24S-060822	0.89	0.89	2.78	1.10	2.56	20220608
SILVER	11/86	13	0.065 J	1.9	MSA-MW-47I	MSA-MW-47I-061422	0.053	0.053	0.51	0.09	0.28	20220614
THALLIUM	23/86	27	0.2 J	1.3	MSA-MW-24S	MSA-MW-24S-060822	0.2	0.58	0.46	0.20	0.20	20220608
ZINC	62/86	72	15 J	1,900 J	MSA-MW-24S	MSA-MW-24S-060822	15	15	186.39	136.47	264.06	20220608
Metals, filtered (µg/L)												
ANTIMONY	3/86	3	0.61 J	1.3 J	MSA-MW-48S	MSA-MW-48S-052422	0.57	0.57	0.88	0.31	0.12	20220524
ARSENIC	40/86	47	0.83 J	19	MSA-MW-14I	MSA-MW-14I-052622	0.75	0.75	4.67	2.37	3.65	20220526
BERYLLIUM	27/86	31	0.72 J	8.9 J	MSA-MW-24S	MSA-MW-24S-060822	0.62	0.62	3.02	1.16	1.65	20220608
CADMIUM	39/86	45	0.2 J	810	MSA-DMW-03I	MSA-DMW-3I-052322	0.2	0.2	45.41	20.65	96.82	20220523
CHROMIUM	22/86	26	2.6 J	24	MSA-MW-24S	MSA-MW-24S-060822	2.5	2.5	5.78	2.41	3.36	20220608
COPPER	38/86	44	1.8 J	470 J	MSA-MW-24S	MSA-MW-24S-060822	1.7	1.7	37.67	17.12	59.39	20220608
LEAD	23/86	27	0.46 J	7.5	MSA-DMW-09I	MSA-DMW-09I-051722	0.45	0.45	1.48	0.56	0.94	20220517
MERCURY	16/86	19	0.13 J	2.7	MSA-DMW-04D	MSA-DMW-4D-051922	0.13	0.17	0.35	0.12	0.29	20220519
NICKEL	70/86	81	1.6 J	850 J	MSA-MW-24S	MSA-MW-24S-060822	1.5	1.5	53.88	43.99	99.41	20220608
SELENIUM	24/86	28	0.89 J	11 J	MSA-MW-24S	MSA-MW-24S-060822	0.89	0.89	2.03	0.89	1.35	20220608
SILVER	1/86	1	0.62 J	0.62 J	MSA-MW-47I	MSA-MW-47I-061422	0.053	0.053	0.62	0.03	0.06	20220614
THALLIUM	18/86	21	0.21 J	1.2	MSA-MW-24S	MSA-MW-24S-060822	0.2	0.58	0.43	0.18	0.18	20220608
ZINC	54/86	63	16 J	2,800 J	MSA-MW-24S	MSA-MW-24S-060822	15	15	215.78	138.28	338.94	20220608
Field parameters												
COLOR (cu)	82/82	100	0	0	MSA-DMW-03S	MSA-DMW-3S-051922	NULL	NULL	0	0	0	20220519
DISSOLVED OXYGEN (mg/L)	82/82	100	0	4.89	MSA-MW-47D	MSA-MW-47D-061422	NULL	NULL	0.36	0.36	1.06	20220614
OXIDATION REDUCTION POTENTIAL (mv)	82/82	100	-310	470	MSA-MW-50I	MSA-MW-50I-060722	NULL	NULL	99.95	99.95	157.65	20220607
PH (s.u.)	82/82	100	3.02	9.54	MSA-DMW-03S	MSA-DMW-3S-051922	NULL	NULL	5.94	5.94	1.33	20220519
SALINITY (ppt)	82/82	100	0	2.2	MSA-DMW-03S	MSA-DMW-3S-051922	NULL	NULL	0.26	0.26	0.41	20220519
SPECIFIC CONDUCTANCE (ms/cm)	82/82	100	0.012	4.1	MSA-DMW-03S	MSA-DMW-3S-051922	NULL	NULL	0.80	0.80	0.89	20220519
TEMPERATURE (deg C)	82/82	100	2.63	26.28	MSA-MW-44S	MSA-MW-44S-052022	NULL	NULL	17.49	17.49	2.95	20220520
TURBIDITY (ntu)	82/82	100	0.05	1,000	MSA-MW-54S	MSA-MW-54S-060922	NULL	NULL	19.54	19.54	109.93	20220609
Miscellaneous (µg/L)												
HEXAVALENT CHROMIUM	11/32	34	0.013 J	0.44	MSA-MW-15D	MSA-MW-15D-052622	0.005	0.05	0.15	0.05	0.11	20220526
Petroleum hydrocarbons (µg/L)												
GASOLINE-RANGE ORGANICS	15/38	39	54 J	29,000	MSA-MW-54S	MSA-MW-54S-060922	49	49	3,788.53	1,510.30	4,791.14	20220609
DIESEL-RANGE ORGANICS	21/38	55	230 J	320,000	MSA-MW-54S	MSA-MW-54S-060922	210	680	16,130	8,976.71	51,832.28	20220609
Radiological (pci/L)												
RADIUM-228	6/7	86	0.667	17.7	MSA-DMW-06I	MSA-DMW-6I-060622	0.412	0.412	7.28	6.27	7.25	20220606
TOTAL ALPHA RADIUM	5/7											

Table 4-3
 Detected Analytes and Screening-Criteria Exceedances for
 Groundwater Samples—2022
 Dump Road Area, Martin State Airport
 Missile River, Maryland
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LOCATION SAMPLE ID SAMPLE DATE	Maryland Department of the Environment Groundwater Standard (1)(2)(R)	DMW-02A	DMW-02B	DMW-03I	DMW-03S	DMW-04D	DMW-04I	DMW-05S	DMW-06D	DMW-06I	DMW-06S	DMW-07D
		MSA-DMW-2A-051822 20220518	MSA-DMW-2B-051822 20220518	MSA-DMW-3I-052322 20220523	MSA-DMW-3S-051922 20220519	MSA-DMW-4D-051922 20220519	MSA-DMW-4I-051922 20220519	MSA-DMW-5S-051922 20220519	MSA-DMW-6D-060622 20220606	MSA-DMW-6I-060622 20220606	MSA-DMW-6S-060622 20220606	MSA-DMW-7D-052022 20220520
Volatile organic compounds (µg/L)												
1,1,1-TRICHLOROETHANE	200	48 U	0.48 U	9.6 U	0.96 U	0.48 U	5.4	0.48 U	0.48 U	5.4	0.48 U	0.48 U
1,1,2-TRICHLOROETHANE	NC	41 U	0.41 U	8.2 U	0.82 U	0.41 U	1.3	0.59 J	0.41 U	1.3	0.59 J	0.41 U
1,1-DICHLOROETHANE	2.8	47 U	0.47 U	9.4 U	0.94 U	0.47 U	6.1	0.73 J	0.47 U	6.1	0.73 J	0.47 U
1,1-DICHLOROETHENE	7	49 U	0.49 U	9.8 U	0.98 U	0.49 U	17	1.6	0.49 U	17	1.6	0.49 U
1,2,3-TRIMETHYLBENZENE	NC	31 U	0.31 U	6.2 U	0.62 U	0.31 U	6.6 J	1.1	0.31 U	6.6 J	1.1	0.31 U
1,2,4-TRICHLOROBENZENE	70	77 U	0.77 U	15 U	1.5 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
1,2,4-TRIMETHYLBENZENE	5.6	52 U	0.52 U	10 U	1.0 U	0.52 U	2.3	0.52 U	0.52 U	2.3	0.52 U	0.52 U
1,2-DICHLOROBENZENE	600	48 U	0.48 U	9.6 U	0.96 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
1,2-DICHLOROETHANE	5	21 U	0.21 U	4.2 U	0.42 U	0.21 U	1.4	0.21 U	0.21 U	1.4	0.21 U	0.21 U
1,3-DICHLOROBENZENE	NC	45 U	0.45 U	9 U	0.9 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,4-DICHLOROBENZENE	75	41 U	0.41 U	8.2 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
2-BUTANONE	560	120 U	1.2 U	23 U	2.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
4-ISOPROPYLTOLUENE	NC	56 U	0.56 U	11 U	1.1 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U
ACETONE	1,400	540 U	5.4 U	110 U	11 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
BENZENE	5	42 U	0.42 U	8.4 U	0.84 U	0.42 U	2.4	0.42 U	0.42 U	2.4	0.42 U	0.42 U
CARBON TETRACHLORIDE	5	26 U	0.26 U	5.2 U	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	100	38 U	0.38 U	7.6 U	0.76 U	0.38 U	0.77 J	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
CHLOROFORM	80	47 U	0.47 U	9.4 U	0.94 U	0.47 U	1.0	0.47 U	0.47 U	1.0	0.47 U	0.47 U
CIS-1,2-DICHLOROETHENE	70	830	4.3	440	980 J	33	2000 J	2700 J	0.46 U	2000 J	2700 J	0.46 U
DIISOPROPYL ETHER	NC	17 U	0.17 U	3.4 U	0.34 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
ETHYLBENZENE	700	42 U	0.42 U	8.4 U	0.84 U	0.42 U	1.4	0.42 U	0.42 U	1.4	0.42 U	0.42 U
ISOPROPYLBENZENE	45	49 U	0.49 U	9.8 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
M-P-XYLENES	NC	42 U	0.42 U	8.4 U	0.84 U	0.42 U	2.7	0.42 U	0.42 U	2.7	0.42 U	0.42 U
METHYLENE CHLORIDE	5	260 U	2.6 U	52 U	5.2 U	2.6 U	3.1 J	2.6 U	2.6 U	3.1 J	2.6 U	2.6 U
NAPHTHALENE	0.17	80 U	0.8 U	16 U	1.6 U	0.8 U	1.3	0.8 U	0.8 U	1.3	0.8 U	0.8 U
N-PROPYLBENZENE	NC	57 U	0.57 U	11 U	1.1 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
O-XYLENE	NC	42 U	0.42 U	8.4 U	0.84 U	0.42 U	2.1	0.42 U	0.42 U	2.1	0.42 U	0.42 U
SEC-BUTYLBENZENE	NC	53 U	0.53 U	11 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
TERTIARY-BUTYL ALCOHOL	NC	720 U	7.2 U	140 U	14 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U
TETRACHLOROETHENE	5	44 U	0.44 U	8.8 U	0.88 U	0.44 U	6.5	0.44 U	0.44 U	6.5	0.44 U	0.44 U
TOLUENE	1,000	44 U	0.44 U	8.8 U	0.88 U	0.44 U	4.1	0.44 U	0.44 U	4.1	0.44 U	0.44 U
TOTAL XYLENES	1,000	42 U	0.42 U	8.4 U	0.84 U	0.42 U	2.1	0.42 U	0.42 U	2.1	0.42 U	0.42 U
TRANS-1,2-DICHLOROETHENE	100	51 U	0.51 U	10 U	1.0 U	0.51 U	2.0	0.51 U	0.51 U	2.0	0.51 U	0.51 U
TRICHLOROETHENE	5	2400	1.6	560	5.6	1.6	4500 J	3000 J	0.44 U	4500 J	3000 J	0.44 U
VINYL CHLORIDE	2	290	0.45 U	240	3600 J	2.3	92 J	990 J	0.45 U	92 J	990 J	0.45 U
Semivolatile organic compounds (µg/L)												
1,4-DIOXANE	0.46	48 J	0.37 U	25 J	170 J	0.37 U	19 J	6.8 J	0.39 U	19 J	6.8 J	0.39 U
Field parameters												
TEMPERATURE (deg C)	NC	20.65	21.25	15.38	22.51	22.16	19.31	16.51	14.53	15.29	17.72	20.56
DISSOLVED OXYGEN (mg/L)	NC	0	4.75	0	0	0	0	0	0.11	0	0	0
SPECIFIC CONDUCTANCE (ms/cm)	NC	0.722	0.016	0.87	4.1	0.442	1.04	0.849	0.378	0.384	0.691	0.482
OXIDATION REDUCTION POTENTIAL (mv)	NC	266	243	306	-310	266	277	-22	252	405	-99	268
TURBIDITY (ntu)	NC	12.4	6.89	5.6	5.84	1.46	4.69	11.7	6.85	9.9	4.95	4.99
SALINITY (ppt)	NC	0.4	0	0.4	2.2	0.2	0.5	0.4	0.2	0.3	0.2	0.2
PH (s.u.)	NC	4.92	4.13	9.54	4.29	3.98	6.38	5.19	4.24	7.37	4.56	4.56
Metals (µg/L)												
ANTIMONY	6	0.57 U	--	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	10	0.75 U	--	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
BERYLLIUM	4	3	--	4.3	0.62 U	3	2.9	0.64 J	1.2	8.4	0.62 U	1.9
CADMIUM	5	360	--	800	0.2 U	2	11	0.2 U	1.1	3.6	0.2 U	1.8
CHROMIUM	100	2.8 J	--	3.7 J	4.7 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
COPPER	1,300	33	--	8.2	1.7 U	31	68	2.3	11	60	1.7 U	17
LEAD	15	2.1	--	1.8	1.1	0.45 U	3.2	0.45 U	1.4	0.45 U	1.4	0.45 U
MERCURY	2	0.13 J	--	0.13 U	0.19 J	3.2	0.22	0.13 U	0.55	0.21	0.13 U	1.9
NICKEL	39	140	--	85	2.7	41	52	6.8	49	59	1.5 U	85
SELENIUM	50	1.5 J	--	1.4 J	0.89 U	1.5 J	1.1	0.89 U	2.7 J	0.89 U	0.89 U	0.91 J
SILVER	9.4	0.053 U	--	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	2	0.43 J	--	0.58 U	0.2 U	0.43 J	0.24 J	0.64 J	0.2 U	0.2 U	0.2 U	0.2 U
ZINC	600	420	--	250	15 U	79	170	18 J	100	230	15 U	150
Metals, filtered (µg/L)												
ANTIMONY	6	0.57 U	--	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	10	0.75 U	--	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
BERYLLIUM	4	2.9	--	4.2	0.62 U	3	2.9	0.62 U	1.3	7.8	0.62 U	1.8
CADMIUM	5	350	--	810	0.2 U	1.9	11	0.2 U	1	3	0.2 U	1.9
CHROMIUM	100	2.5 U	--	3.8 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
COPPER	1,300	33	--	8.9	1.7 U	31	66	1.7 U	10	55	1.7 U	17
LEAD	15	1.9	--	1.7	0.45 U	0.5 J	3.2	0.45 U	1.2	0.45 U	1.2	0.45 U
MERCURY	2	0.13 U	--	0.13 U	0.14 J	2.7	0.13 U	0.13 J	0.13 U	0.13 U	0.13 U	0.31
NICKEL	39	140	--	91	1.5 U	42	51	6.3	48	55	1.5 U	87
SELENIUM	50	1.4 J	--	1.4 J	0.89 U	1.8 J	0.96 J	0.89 U	2.5 J	0.89 U	0.89 U	1.1 J
SILVER	9.4	0.053 U	--	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	2	0.31 J	--	0.55 U	0.2 U	0.63 J	0.22 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
ZINC	600	420	--	270	15 U	80	170	18 J	100	220	15 U	150
Miscellaneous (µg/L)												
HEXAVALENT CHROMIUM	0.035	--	--	--	--	--	--	--	--	--	0.005 UR	--
Petroleum hydrocarbons (µg/L)												
GASOLINE-RANGE ORGANICS	47	--	--	--	830	--	--	2,400	--	--	49 U	--
DIESEL-RANGE ORGANICS	47	--	--	--	1,800	--	--	410 J	--	--	890	--
Radionuclides (pCi/L)												
RADIUM-226	5	--	--	14.1	--	--	--	--	8.6	17.7	1.69 J	--
TOTAL ALPHA RADIUM	5	--	--	4.87	--	--	--	--	2.93	6.39	1.2	--

1- MDE groundwater standards (MDE, 2018) unless otherwise noted.
 2- USEPA regional screening level for 1,4-dioxane (set at a 1x10⁻⁶ risk level); MDE standard is not available.
 3- USEPA Radionuclides Rule 66 FR 76708; MDE standard is not available.
Bold font indicates a positive detection.
Gray shading indicates value exceeds standard.
 -- not analyzed
 J - detected, concentration estimated
 MDE - Maryland Department of the Environment
 µg/L - micrograms per liter
 MW - monitoring well
 NA - not available (second column) or not analyzed
 NJ - tentatively identified; concentration estimated
 pCi/L - picocuries per liter
 U - not detected
 USEPA - United States Environmental Protection Agency

Table 4-3
 Detected Analytes and Screening-Criteria Exceedances for
 Groundwater Samples—2022
 Dump Road Area, Martin State Airport
 Missile River, Maryland
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DMW-071 MSA-DMW-71-052022 20220520	DMW-075 MSA-DMW-75-052022 20220520	DMW-090 MSA-DMW-090-051722 20220517	DMW-091 MSA-DMW-091-051722 20220517	DMW-095 MSA-DMW-095-051722 20220517	DMW-111 MSA-DMW-111-060922 20220608	DMW-115 MSA-DMW-115-060922 20220609	MW-04 MSA-MW-04-051322 20220513	MW-06 MSA-MW-06-060622 20220606	MW-140 MSA-MW-140-052622 20220526	MW-141 MSA-MW-141-052622 20220526	MW-150 MSA-MW-150-052622 20220526	MW-160 MSA-MW-160-052522 20220525	MW-161 MSA-MW-161-052522 20220525	MW-165 MSA-MW-165-052522 20220525
Intermediate	Upper	Lower	Intermediate	Upper	Intermediate	Upper	Upper	Upper	Aquifer below	Intermediate	Lower	Lower	Intermediate	Upper
0.48 U	96 U	48 U	19 U	19 U	4.8 U	48 U	0.48 U	0.48 U	0.48 U	34 U	0.48 U	0.48 U	19 U	0.96 U
0.41 U	82 U	41 U	16 U	16 U	4.1 U	41 U	0.41 U	0.41 U	0.41 U	21 U	0.41 U	0.41 U	16 U	0.82 U
0.47 U	94 U	47 U	19 U	19 U	4.7 U	47 U	0.47 U	0.47 U	0.47 U	24 U	0.47 U	0.47 U	19 U	0.94 U
0.49 U	98 U	49 U	20 U	20 U	4.9 U	49 U	0.49 U	0.49 U	0.49 U	25 U	0.49 U	0.49 U	20 U	0.98 U
0.31 UJ	62 UJ	31 U	12 U	15 J	3.1 U	31 U	0.31 U	0.31 U	0.31 U	16 U	0.31 U	0.31 U	12 U	0.62 U
0.77 U	150 U	77 U	31 U	31 U	7.7 U	77 U	0.77 UJ	0.77 UJ	0.77 UJ	39 UJ	0.77 UJ	0.77 UJ	31 U	1.5 U
0.52 UJ	100 UJ	52 U	21 U	31 J	5.2 U	52 U	0.52 U	0.52 U	0.52 U	26 U	0.52 U	0.52 U	21 U	1 U
0.48 U	96 U	48 U	19 U	19 U	4.8 U	48 U	0.48 U	0.48 U	0.48 U	24 U	0.48 U	0.48 U	19 U	0.96 U
0.56 J	42 U	24 J	46	8.4 U	2.1 U	21 U	0.98 J	0.21 U	0.21 U	11 U	0.21 U	0.21 U	8.4 U	0.42 U
0.45 U	90 U	45 U	18 U	18 U	4.5 U	45 U	0.45 U	0.45 U	0.45 U	23 U	0.45 U	0.45 U	18 U	0.9 U
0.41 U	82 U	41 U	16 U	16 U	4.1 U	41 U	0.41 U	0.41 U	0.41 U	21 U	0.41 U	0.41 U	16 U	0.82 U
1.2 U	220 U	120 U	46 U	46 U	12 U	120 U	1.2 U	1.2 U	1.2 U	58 U	1.2 U	1.2 U	46 U	2.3 U
0.56 UJ	110 UJ	56 U	22 U	22 U	5.6 U	56 U	0.56 U	0.56 U	0.56 U	28 U	0.56 U	0.56 U	22 U	1.1 U
5.4 U	1100 U	540 U	220 U	220 U	54 U	540 U	5.4 U	5.4 U	5.4 U	270 U	5.4 UJ	5.4 UJ	220 UJ	11 UJ
0.42 U	84 U	42 U	21 J	97	4.2 U	42 U	0.42 U	0.42 U	0.42 U	26 J	0.42 U	0.42 U	17 U	0.66 U
0.26 U	52 U	26 U	15 J	10 U	2.6 U	26 U	0.26 U	0.26 U	0.26 U	13 U	0.26 U	0.26 U	10 U	0.52 U
0.7 J	76 U	38 U	15 U	210	3.8 U	38 U	0.8	0.38 U	0.38 U	19 U	0.38 U	0.38 U	15 U	0.76 U
0.47 U	94 U	47 U	19 U	19 U	4.7 U	47 U	0.47 U	0.47 U	0.47 U	24 U	0.47 U	0.47 U	19 U	0.94 U
57	8400	680	1400	18 U	340	7200	0.72 J	0.54 J	0.46 U	75	0.94 J	0.46 U	480	22
0.17 U	34 U	17 U	6.8 U	6.8 U	1.7 U	17 U	0.17 U	0.17 U	0.17 U	8.5 U	0.17 U	0.17 U	6.8 U	2.8 J
0.42 U	84 U	42 U	21 U	240	4.2 U	42 U	0.42 U	0.42 U	0.42 U	21 U	0.42 U	0.42 U	17 U	0.84 U
0.49 U	98 U	49 U	20 U	49 U	4.9 U	49 U	0.49 U	0.49 U	0.49 U	25 U	0.49 U	0.49 U	20 U	0.98 U
0.42 U	84 U	42 U	17 U	2200	4.2 U	42 U	0.42 U	0.42 U	0.42 U	21 U	0.42 U	0.42 U	17 U	0.84 U
2.6 U	520 U	260 U	100 U	100 U	26 U	260 U	2.6 U	2.6 U	2.6 U	130 U	2.6 U	2.6 U	100 U	5.2 U
0.8 UJ	160 J	80 U	32 U	32 U	8 U	80 U	0.8 U	0.8 U	0.8 U	40 U	0.8 U	0.8 U	32 U	1.6 U
0.57 U	110 U	57 U	23 U	23 U	5.7 U	57 U	0.57 U	0.57 U	0.57 U	29 U	0.57 U	0.57 U	23 U	1.1 U
0.42 U	84 U	42 U	17 U	240	4.2 U	42 U	0.42 U	0.42 U	0.42 U	21 U	0.42 U	0.42 U	17 U	0.84 U
0.53 U	110 U	53 U	21 U	21 U	5.3 U	53 U	0.53 U	0.53 U	0.53 U	27 U	0.53 U	0.53 U	21 U	1.1 U
7.2 UJ	1400 UJ	720 U	290 U	290 U	72 U	720 U	7.2 UJ	7.2 UJ	7.2 U	360 U	7.2 U	7.2 UJ	290 UJ	14 UJ
0.44 U	88 U	44 U	18 U	18 U	4.4 U	44 U	0.44 U	0.44 U	0.44 U	22 U	0.44 U	0.44 U	18 U	0.88 U
0.44 U	88 U	44 U	18 U	180	4.4 U	44 U	0.44 U	0.44 U	0.44 U	22 U	0.44 U	0.44 U	18 U	0.88 U
0.42 U	84 U	42 U	17 U	2400	4.2 U	42 U	0.42 U	0.42 U	0.42 U	21 U	0.42 U	0.42 U	17 U	0.84 U
1.3 U	100 U	51 U	20 U	20 U	5.1 U	51 U	0.51 U	0.51 U	0.51 U	26 U	0.51 U	0.51 U	20 U	1 U
44	1400	4000	1800	18 U	61	1400	0.44 U	0.44 U	0.44 U	22 U	0.44 U	0.44 U	2500 J	0.88 U
23	2100	78 J	550	18 U	110	6800	1	0.45 U	0.45 U	1400	0.45 U	0.45 U	33 J	83
1.1 J	18 J	36 J	100 J	5.8 J	0.37 UJ	8.3	2.2 J	0.36 U	0.37 U	15	0.37 U	0.37 U	0.37 U	130 J-
16.78	21.19	15.54	18.44	16.92	15.94	16.1	17.07	14.97	15.69	14.79	19.03	14.22	14.12	13.54
0	0	0	0	0	0	0	0	0	1.17	0	0.15	0	0.77	0
0.611	1.04	0.348	0.782	0.862	0.048	0.492	1.21	0.695	0.169	1.53	0.047	0.024	0.086	1.88
157	51	99	85	125	47	3	-162	-20	25	-82	204	321	281	-80
8.03	12.26	26	16.5	4.39	2.46	1.51	4.83	5.54	5.16	5.36	2.36	5.18	3.2	5.18
0.3	0.5	0.2	0.4	0.4	0	0.02	0.6	0.3	0.1	0.8	0	0	0	0.9
5.14	6.39	4.58	5.8	7.08	5.81	6.8	8.05	6.47	7.55	6.73	5.62	4.39	3.98	6.63
0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	--	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
0.75 U	0.75 U	0.75 U	0.75 U	1.1 J	3.8 J	5	0.75 U	1.7 J	--	19	0.75 U	0.75 U	6.5	0.78 J
1.7	0.62 U	0.68 J	3.2	0.62 U	0.62 U	0.62 U	0.62 U	0.62 J	--	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
2.7	0.2 U	0.21 J	6.6	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	0.2 U	0.2 U	0.31 J	0.2 U
3.3 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U	2.9 J
34	3.5	13	17	1.7 U	4.8	1.7 U	1.7 U	1.7 U	--	1.7 U	3.4	4.7	3.2	1.7 U
2.3	0.45 U	5	4	0.45 U	0.71 J	0.45 U	0.45 U	0.45 U	--	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.49	0.13 U	0.13 U	0.13 U	--	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
37	6.5	54	110	1.5 U	1.5 J	2.9	1.5 U	5.5	--	1.5 U	9.4	11	53	28
0.89 U	0.89 U	0.89 U	1.9 J	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	--	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	--	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.58 J	0.2 U	0.2 U	0.2 U	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
150	15 U	170	360	15 U	17 J	15 U	30	24	--	15 U	15 J	19 J	87	23
0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	--	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
0.75 U	0.75 U	6.3	1.2 J	0.9 J	3.9 J	4.1 J	0.75 U	1.5 J	--	19	0.75 U	0.75 U	4 J	0.75 U
1.7	0.62 U	0.62 U	3	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	--	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
2	0.2 U	0.2 U	6	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	0.2 U	0.2 U	0.29 J	0.2 U
2.7 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	--	2.5 U	2.5 U	2.5 U	2.5 U	2.7 J
1.7 U	3.1	1.7 U	22	1.7 U	2.3	1.7 U	1.7 U	1.7 U	--	1.7 U	3.3	5.3	1.8 J	1.7 U
0.95 J	0.45 U	0.45 U	7.5	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	--	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.17 J	0.13 U	0.13 U	0.13 U	--	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
39	6.7	58	100	1.5 U	1.6 J	2.2	1.5 U	5.5	--	1.5 U	9.7	11	50	25
0.89 U	0.89 U	0.89 U	2.1	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	--	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	--	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.42 J	0.2 U	0.2 U	0.2 U	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
150	15 U	160	330	15 U	16 J	15 U	15 U	19 J	--	15 U	15 U	17 J	81	15 U
--	--	--	--	--	--	--	--	--	0.065 J	--	0.44	0.3	--	--
--	4,700	--	--	5,200	--	4,200	49 U	49 U	--	--	--	--	--	54 J
--	400 J	--	--	920	--	1,100	310 J	380 J	--	--	--	--	--	230 J
--	--	--	--	--	--	--	--	--	--	--	--	0.906	--	0.667
--	--	--	--	--	--	--	--	--	--	--	--	0.443 U	--	0.67

APPENDICES

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- Appendix A—Groundwater Level Measurement Records**
- Appendix B—Monitoring Well Purging and Sampling Records**
- Appendix C—Waste Disposal Documentation**
- Appendix D—Analytical Data Tables**
- Appendix E—Data-Validation Reports with Chain-of-Custody Forms**
- Appendix F—Full Laboratory Analytical Reports**

APPENDIX A—GROUNDWATER LEVEL MEASUREMENT RECORDS



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GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name:	<u>MSA Annual GW 2022</u>	Project No.:	<u>112IC09567</u>
Location:	<u>Martin State Airport</u>	Personnel:	<u>Walt Pryor</u>
Weather Conditions:	<u>4/20 (Clear 65 deg F) 4/21 (Clear 59 deg F)</u>	Measuring Device:	<u>Solinst WL Meter</u>
Tidally Influenced:	<u>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></u>	Remarks:	<u></u>

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MSA-DMW-03I	4/21/2022	1018	16.45	57.13	16.55		-0.10	
MSA-DMW-03S	4/21/2022	1015	16.52	26.39	6.10		10.42	
MSA-DMW-04D	4/20/2022	1421	20.44	83.52	20.56		-0.12	
MSA-DMW-04I	4/20/2022	1418	20.48	59.22	20.35		0.13	
MSA-DMW-04S	4/20/2022	1415	20.52	32.75	20.40		0.12	
MSA-DMW-05S	4/20/2022	1426	21.34	32.91	20.58		0.76	
MSA-DMW-06D	4/20/2022	1450	18.51	72.51	17.57		0.94	
MSA-DMW-06I	4/20/2022	1447	18.64	53.43	17.52		1.12	
MSA-DMW-06S	4/20/2022	1444	18.62	27.22	17.20		1.42	
MSA-DMW-07D	4/20/2022	0824	21.94	76.41	20.65		1.29	
MSA-DMW-07I	4/20/2022	0822	21.90	52.82	20.63		1.27	
MSA-DMW-07S	4/20/2022	0820	21.84	30.07	20.35		1.49	
MSA-DMW-09D	4/21/2022	0939	11.41	65.73	8.13		3.28	
MSA-DMW-09I	4/21/2022	0937	11.40	39.97	7.01		4.39	
MSA-DMW-09S	4/21/2022	0935	11.45	13.35	6.75		4.70	
MSA-DMW-11I	4/20/2022	0903	9.15	36.65	6.10		3.05	
MSA-DMW-11S	4/20/2022	0900	9.20	15.65	2.80		6.40	
MSA-DMW-2A	4/21/2022	1005	21.65	62.41	21.80		-0.15	
MSA-DMW-2B	4/21/2022	1007	21.66	95.65	21.85		-0.19	
MSA-MW-14D	4/21/2022	1117	11.56	118.00	6.65		4.91	
MSA-MW-14I	4/21/2022	1115	11.72	50.81	10.62		1.10	
MSA-MW-15D	4/21/2022	0923	8.77	63.02	4.25		4.52	
MSA-MW-15I	4/21/2022	0922	8.79	46.07	4.25		4.54	
MSA-MW-16D	4/21/2022	1054	10.22	71.11	7.90		2.32	
MSA-MW-16I	4/21/2022	1052	10.06	47.89	7.70		2.36	
MSA-MW-16S	4/21/2022	1050	10.20	22.35	7.95		2.25	
MSA-MW-17D	4/21/2022	1109	7.56	69.61	0.85		6.71	
MSA-MW-17I	4/21/2022	1107	7.68	46.73	5.76		1.92	
MSA-MW-17S	4/21/2022	1105	7.61	19.79	5.50		2.11	
MSA-MW-18D	4/21/2022	1034	8.88	75.19	10.42		-1.54	
MSA-MW-18I	4/21/2022	1032	8.91	48.73	8.15		0.76	
MSA-MW-18S	4/21/2022	1030	8.89	24.85	8.05		0.84	
MSA-MW-19D	4/20/2022	1045	7.94	81.05	6.35		1.59	
MSA-MW-20D	4/21/2022	0949	12.40	71.81	9.15		3.25	
MSA-MW-20I	4/21/2022	0947	12.39	45.91	7.65		4.74	



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GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: MSA Annual GW 2022 **Project No.:** 112IC09567
Location: Martin State Airport **Personnel:** Walt Pryor
Weather Conditions: 4/20 (Clear 65 deg F) 4/21 (Clear 59 deg F) **Measuring Device:** Solinst WL Meter
Tidally Influenced: Yes No **Remarks:** _____

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MSA-MW-20S	4/21/2022	0945	12.44	20.48	7.61		4.83	
MSA-MW-21D	4/20/2022	1117	10.78	79.91	8.95		1.83	
MSA-MW-21I	4/20/2022	1115	10.83	39.75	8		2.83	
MSA-MW-22D	4/20/2022	0930	11.02	80.07	8.72		2.3	
MSA-MW-23D	4/20/2022	0942	10.03	86.9	7.8		2.23	
MSA-MW-23S	4/20/2022	0940	10.01	26.95	7.03		2.98	
MSA-MW-24I	4/20/2022	0954	7.68	45.51	4.7		2.98	
MSA-MW-24S	4/20/2022	0952	7.72	25.05	3.55		4.17	
MSA-MW-25I	4/20/2022	0852	9.72	44.21	6.57		3.15	
MSA-MW-25S	4/20/2022	0850	9.69	19.83	4.52		5.17	
MSA-MW-26D	4/20/2022	1130	11.66	68.66	8.97		2.69	
MSA-MW-27D	4/20/2022	0915	8.39	185	0.75		7.64	
MSA-MW-29D	4/20/2022	1510	11.43	160	9.95		1.48	
MSA-MW-30D	4/20/2022	1010	8.26	208	2.1		6.16	
MSA-MW-30I	4/20/2022	1002	7.52	43.13	4.85		2.67	
MSA-MW-31D	4/20/2022	1020	6.95	200	1.55		5.4	
MSA-MW-32I	4/20/2022	1037	7.28	65.31	5.75		1.53	
MSA-MW-32S	4/20/2022	1035	7.27	33.93	1.8		5.47	
MSA-MW-33I	4/21/2022	1137	10.02	70.62	6.72		3.3	
MSA-MW-33S	4/21/2022	1135	9.97	45.13	6.63		3.34	
MSA-MW-34S	4/21/2022	1150	7.89	37.21	4.9		2.99	
MSA-MW-34I	4/21/2022	1153	7.88	56.45	4.92		2.96	
MSA-MW-35S	4/21/2022	0910	12.63	34.77	8.8		3.83	
MSA-MW-36S	4/20/2022	0840	11.88	35.05	6.35		5.53	
MSA-MW-37S	4/20/2022	0910	10.7	25.02	5.78		4.92	
MSA-MW-4	4/21/2022	0928	10.34	25.93	4.14		6.2	
MSA-MW-40I	4/20/2022	1618	17.59	43.62	15.95		1.64	
MSA-MW-40S	4/20/2022	1615	17.48	27.91	15.42		2.06	
MSA-MW-41I	4/20/2022	1055	10.23	54.42	7.33		2.9	
MSA-MW-41S	4/20/2022	1053	10.23	35.03	7.3		2.93	



Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: MSA Annual GW 2022 **Project No.:** 112IC09567
Location: Martin State Airport **Personnel:** Walt Pryor
Weather Conditions: 4/20 (Clear 65 deg F) 4/21 (Clear 59 deg F) **Measuring Device:** Solinst WL Meter
Tidally Influenced: Yes No **Remarks:** _____

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MSA-MW-42I	4/21/2022	1127	8.87	33.2	6.25		2.62	
MSA-MW-42S	4/21/2022	1125	8.88	11.82	5.92		2.96	
MSA-MW-43S	4/21/2022	1025	18.08	16.71	13.35		4.73	
MSA-MW-44S	4/21/2022	1040	9.21	15.06	0.87		8.34	
MSA-MW-45S	4/20/2022	1100	10.03	24.95	7.06		2.97	
MSA-MW-46D	4/20/2022	1250	11.67	63.65	11.75		-0.08	
MSA-MW-46I	4/20/2022	1248	11.19	48.13	11.16		0.03	
MSA-MW-46S	4/20/2022	1245	11.26	28.04	10.63		0.63	
MSA-MW-47D	4/20/2022	1306	12.04	58.62	12.2		-0.16	
MSA-MW-47I	4/20/2022	1303	11.94	35.34	12.2		-0.26	
MSA-MW-47S	4/20/2022	1300	11.96	22.75	11.76		0.2	
MSA-MW-48D	4/20/2022	1345	20.12	53.55	20.28		-0.16	
MSA-MW-48I	4/20/2022	1343	19.94	38.08	20.7		-0.76	
MSA-MW-48S	4/20/2022	1340	19.92	22.75	19.76		0.16	
MSA-MW-49D	4/20/2022	1404	19.6	63.71	19.9		-0.3	
MSA-MW-49I	4/20/2022	1402	19.59	48.22	19.75		-0.16	
MSA-MW-49S	4/20/2022	1400	19.84	33.02	19.95		-0.11	
MSA-MW-50D	4/20/2022	1531	13.12	63.52	12.09		1.03	
MSA-MW-50I	4/20/2022	1528	12.64	48.14	11.5		1.14	
MSA-MW-50S	4/20/2022	1525	12.55	32.88	11.76		0.79	
MSA-MW-51D	4/20/2022	1547	9.55	63.46	8.45		1.1	
MSA-MW-51I	4/20/2022	1543	9.61	42.12	8.35		1.26	
MSA-MW-51S	4/20/2022	1540	9.69	22.97	8.41		1.28	
MSA-MW-52D	4/20/2022	1318	13.04	53.04	13.44		-0.4	
MSA-MW-52I	4/20/2022	1315	13.27	37.88	13.7		-0.43	
MSA-MW-52S	4/20/2022	1312	13.24	22.99	9.6		3.64	
MSA-MW-53I	4/21/2022	0957	14.39	42.73	11.62		2.77	
MSA-MW-53S	4/21/2022	0955	14.37	12.15	9.75		4.62	
MSA-MW-54I	4/20/2022	0920	10.83	45.24	7.9		2.93	
MSA-MW-54S	4/20/2022	0917	10.75	21.73	5.49		5.26	
MSA-MW-6	4/20/2022	1555	15.72	32.69	13.9		1.82	

*All measurements are from top of casing.

APPENDIX B—MONITORING WELL PURGING AND SAMPLING RECORDS

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-2A-051822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-18
Sample Time:	12:00:00

WELL INFORMATION:

Well ID:	MSA-DMW-2A
Well Diameter (in):	2
Top Screen (ft-BTOR):	50
Bottom Screen (ft-BTOR):	60
Total Well Depth (ft-BTOR):	60

Purge Date:	2022-05-18
Static Water Level (ft-BTOR):	19.98
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity ppt	Other
11:55:00	21.31	300	Clear	4.21	0.722	0	12.4	20.65	266	0.4	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-2A-051822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-18
Sample Time:	12:00:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:10:00	21.25	300	Clear	4.87	0.743	2.12	70.9	21.78	154	0.4	
11:15:00	21.28	300	Clear	4.22	0.75	0.35	21.6	21.3	226	0.4	
11:20:00	21.28	300	Clear	4.25	0.741	0.17	22.6	20.97	242	0.4	
11:25:00	21.29	300	Clear	4.23	0.726	0.1	16.8	20.79	254	0.4	
11:30:00	21.3	300	Clear	4.23	0.718	0	13.8	20.78	259	0.3	
11:35:00	21.31	300	Clear	4.23	0.722	0	14.6	20.76	257	0.4	
11:40:00	21.31	300	Clear	4.22	0.725	0	11.73	20.65	263	0.4	
11:45:00	21.31	300	Clear	4.21	0.731	0	11.2	20.5	263	0.4	
11:50:00	21.31	300	Clear	4.21	0.729	0	11.2	20.64	265	0.4	
11:55:00	21.31	300	Clear	4.21	0.722	0	12.4	20.65	266	0.4	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-2B-051822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-18
Sample Time:	13:20:00

WELL INFORMATION:

Well ID:	MSA-DMW-2B
Well Diameter (in):	2
Top Screen (ft-BTOR):	85
Bottom Screen (ft-BTOR):	95
Total Well Depth (ft-BTOR):	95

Purge Date:	2022-05-18
Static Water Level (ft-BTOR):	20.08
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:15:00	21.84	300	Clear	4.92	0.016	4.75	6.89	21.25	243	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-2B-051822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-18
Sample Time:	13:20:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:30:00	21.98	300	Clear	5.43	0.029	3.4	68.3	24.58	196	0	
12:35:00	21.98	300	Clear	5.4	0.02	5.01	29.5	22.92	207	0	
12:40:00	21.78	300	Clear	5.38	0.019	5.44	17.2	22.24	214	0	
12:45:00	21.72	300	Clear	5.36	0.019	4.61	13.6	21.71	217	0	
12:50:00	21.7	300	Clear	5.25	0.017	4.59	12.8	21.8	218	0	
12:55:00	21.71	300	Clear	5.16	0.017	4.56	11.6	21.62	229	0	
13:00:00	21.74	300	Clear	4.99	0.017	4.63	12.48	21.32	234	0	
13:05:00	21.78	300	Clear	4.93	0.017	4.67	8.25	21.39	237	0	
13:10:00	21.78	300	Clear	4.98	0.016	4.72	8.51	21.31	242	0	
13:15:00	21.84	300	Clear	4.92	0.016	4.75	6.89	21.25	243	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-3I-052322
QA/QC Duplicate ID:	None
MS/MSD Collected:	no

Sampled By:	WP
Sample Date:	2022-05-23
Sample Time:	09:32:00

WELL INFORMATION:

Well ID:	MSA-DMW-3I
Well Diameter (in):	2
Top Screen (ft-BTOR):	48.26
Bottom Screen (ft-BTOR):	58.26
Total Well Depth (ft-BTOR):	58.26

Purge Date:	2022-05-23
Static Water Level (ft-BTOR):	15.5
PID Monitor Reading:	0.00
Purge Method:	low_flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	horiba_u_52
Turbidity Meter:	lamotte_2020we

Pump Controller:	geotech_geopump_peristaltic_pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:27:00	15.65	300	Clear	4.13	0.87	0	5.6	15.38	306	0.4	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
Total Alpha Radium	903	HNO3	1	1	Plastic	yes
Radium 228	904	HNO3	2	1	Plastic	yes

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

Latitude	Longitude
0.000000	0.000000

Walt

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-3I-052322
QA/QC Duplicate ID:	None
MS/MSD Collected:	no

Sampled By:	WP
Sample Date:	2022-05-23
Sample Time:	09:32:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:42:00	15.5	300	Clear	3.95	0.834	1.5	155	18.59	295	0.4	
08:47:00	15.65	300	Clear	3.91	0.847	0.49	50.1	16.43	315	0.4	
08:52:00	15.65	300	Clear	3.95	0.85	0.4	11	16.07	317	0.4	
09:02:00	15.65	300	Clear	4.06	0.854	0	9.27	15.68	315	0.4	
09:12:00	15.65	300	Clear	4.1	0.866	0	8.61	15.46	311	0.4	
09:17:00	15.65	300	Clear	4.11	0.867	0	5.65	15.41	309	0.4	
09:22:00	15.65	300	Clear	4.12	0.871	0	5.63	15.29	307	0.4	
09:27:00	15.65	300	Clear	4.13	0.87	0	5.6	15.38	306	0.4	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-3S-051922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-19
Sample Time:	11:25:00

WELL INFORMATION:

Well ID:	MSA-DMW-3S
Well Diameter (in):	2
Top Screen (ft-BTOR):	16.96
Bottom Screen (ft-BTOR):	26.96
Total Well Depth (ft-BTOR):	26.96

Purge Date:	2022-05-19
Static Water Level (ft-BTOR):	13.41
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:20:00	19.44	150	Clear	9.54	4.1	0	5.84	22.51	-310	2.2	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

*Zachary
Musser*

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-3S-051922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-19
Sample Time:	11:25:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:00:00	9.88	300	Clear	7	4.59	0.25	10.93	18.01	-3	2.5	
10:05:00	-9999	300	Clear	8.31	4.46	0	7.04	18.01	-119	2.4	
10:10:00	14.09	300	Clear	8.92	4.38	0	12	19.43	-73	2.4	
10:20:00	15.3	300	Clear	8.48	4.32	0	16.2	19.27	-100	2.3	
10:25:00	16.29	300	Clear	8.73	4.32	0	12.4	19.06	-148	2.3	
10:30:00	17.06	300	Clear	8.8	4.35	0	8.41	19.08	-176	2.3	
10:35:00	17.42	150	Clear	8.89	4.33	0	8.94	19.21	-196	2.3	
10:40:00	17.69	150	Clear	8.94	4.35	0	12.04	19.36	-212	2.3	
10:45:00	18.02	150	Clear	9.06	4.32	0	11.9	19.62	-231	2.3	
10:50:00	18.31	150	Clear	9.17	4.31	0	8.01	19.84	-247	2.3	
10:55:00	18.55	150	Clear	9.22	4.3	0	8.72	20.09	-257	2.3	
11:00:00	18.74	150	Clear	9.29	4.28	0	6.62	20.8	-269	2.3	
11:05:00	18.9	150	Clear	9.37	4.25	0	7.83	20.98	-278	2.3	
11:10:00	19.03	150	Clear	9.44	4.2	0	6.03	21.44	-290	2.2	
11:15:00	19.17	150	Clear	9.51	4.07	0	4.64	21.99	-301	2.2	
11:20:00	19.44	150	Clear	9.54	4.1	0	5.84	22.51	-310	2.2	

GROUNDWATER SAMPLE LOGSHEET



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-3S-051922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-19
Sample Time:	11:25:00

PHOTOS:

Photo ID 1795
Photo Date 2022-05-19
Photo Description:



GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-4D-051922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	YES

Sampled By:	Zach Musser
Sample Date:	2022-05-19
Sample Time:	13:05:00

WELL INFORMATION:

Well ID:	MSA-DMW-4D
Well Diameter (in):	2
Top Screen (ft-BTOR):	70.52
Bottom Screen (ft-BTOR):	80.52
Total Well Depth (ft-BTOR):	80.52

Purge Date:	2022-05-19
Static Water Level (ft-BTOR):	19.51
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:00:00	19.68	300	Clear	4.29	0.442	0	1.46	22.16	266	0.2	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-4D-051922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	YES

Sampled By:	Zach Musser
Sample Date:	2022-05-19
Sample Time:	13:05:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:10:00	19.6	300	Clear	9.33	0.306	1.15	4.34	27.81	6	0.1	
12:15:00	19.61	300	Clear	6.04	0.233	0.39	2.37	25.62	157	0.1	
12:20:00	19.62	300	Clear	4.86	0.238	0.33	2.2	23.9	204	0	
12:25:00	19.61	300	Clear	4.67	0.243	0.32	1.55	23.21	216	0.1	
12:30:00	19.61	300	Clear	4.58	0.247	0.32	1.4	22.93	227	0.1	
12:35:00	19.63	300	Clear	4.55	0.249	0.31	1.68	22.91	234	0.1	
12:40:00	19.64	300	Clear	4.48	0.257	0.29	1.69	22.71	244	0.1	
12:45:00	19.65	300	Clear	4.35	0.367	0	2.13	22.29	252	0.2	
12:50:00	19.65	300	Clear	4.3	0.432	0	1.67	22.6	257	0.2	
12:55:00	19.66	300	Clear	4.31	0.434	0	1.56	22.43	264	0.2	
13:00:00	19.68	300	Clear	4.29	0.442	0	1.46	22.16	266	0.2	

GROUNDWATER SAMPLE LOGSHEET



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-4D-051922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	YES

Sampled By:	Zach Musser
Sample Date:	2022-05-19
Sample Time:	13:05:00

PHOTOS:

Photo ID 1789
Photo Date 2022-05-19
Photo Description:



GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-4I-051922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-19
Sample Time:	14:38:00

WELL INFORMATION:

Well ID:	MSA-DMW-4I
Well Diameter (in):	2
Top Screen (ft-BTOR):	46.63
Bottom Screen (ft-BTOR):	56.63
Total Well Depth (ft-BTOR):	56.63

Purge Date:	2022-05-19
Static Water Level (ft-BTOR):	19.51
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:33:00	19.59	300	Clear	3.98	1.04	0	4.69	19.31	277	0.5	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-4I-051922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-19
Sample Time:	14:38:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:48:00	19.52	300	Clear	3.79	0.651	7.48	8.94	26.32	310	0.3	
13:53:00	19.54	300	Clear	3.85	0.666	0.58	7.37	26.12	304	0.3	
13:58:00	19.55	300	Clear	4.02	0.729	0	7.03	20.92	290	0.4	
14:03:00	19.55	300	Clear	4.08	0.76	0	9.16	19.33	282	0.4	
14:08:00	19.56	300	Clear	4.07	0.824	0	11.05	18.67	279	0.4	
14:13:00	19.56	300	Clear	4.02	0.861	0	7.66	18.82	280	0.4	
14:18:00	19.57	300	Clear	3.94	0.888	0	4.42	18.88	281	0.4	
14:23:00	19.57	300	Clear	3.91	1.05	0	7.8	19.31	283	0.5	
14:28:00	19.58	300	Clear	3.93	1.04	0	8.51	19.4	281	0.5	
14:33:00	19.59	300	Clear	3.98	1.04	0	4.69	19.31	277	0.5	

GROUNDWATER SAMPLE LOGSHEET



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-4I-051922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-19
Sample Time:	14:38:00

PHOTOS:

Photo ID 1792
Photo Date 2022-05-19
Photo Description:



GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-5S-051922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-19
Sample Time:	08:27:00

WELL INFORMATION:

Well ID:	MSA-DMW-5S
Well Diameter (in):	2
Top Screen (ft-BTOR):	20.45
Bottom Screen (ft-BTOR):	30.45
Total Well Depth (ft-BTOR):	30.45

Purge Date:	2022-05-18
Static Water Level (ft-BTOR):	20.21
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:22:00	21.19	300	Clear	6.38	0.849	0	11.7	16.51	-22	0.4	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-5S-051922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-19
Sample Time:	08:27:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
07:27:00	20.69	300	Clear	6.14	0.786	2.84	83	20.42	88	0.4	
07:32:00	20.89	300	Clear	6.42	0.805	0.39	87.5	19.09	-17	0.4	
07:37:00	21.03	300	Clear	6.4	0.806	0	71.1	17.91	-14	0.4	
07:42:00	21.09	300	Clear	6.28	0.807	0	56.3	17.12	-3	0.4	
07:47:00	21.15	300	Clear	6.18	0.812	0	38.3	16.65	2	0.4	
07:52:00	21.16	300	Clear	6.17	0.819	0	27.4	16.46	-1	0.4	
07:57:00	21.17	300	Clear	6.17	0.826	0	20.6	16.3	-4	0.4	
08:02:00	21.17	300	Clear	6.19	0.833	0	19.5	16.25	-8	0.4	
08:07:00	21.18	300	Clear	6.23	0.842	0	15.8	16.26	-12	0.4	
08:12:00	21.19	300	Clear	6.28	0.844	0	14.1	16.37	-15	0.4	
08:17:00	21.19	300	Clear	6.32	0.846	0	13.3	16.46	-19	0.4	
08:22:00	21.19	300	Clear	6.38	0.849	0	11.7	16.51	-22	0.4	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-6D-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-06
Sample Time:	10:24:00

WELL INFORMATION:

Well ID:	MSA-DMW-6D
Well Diameter (in):	2
Top Screen (ft-BTOR):	60.05
Bottom Screen (ft-BTOR):	70.05
Total Well Depth (ft-BTOR):	70.05

Purge Date:	2022-06-06
Static Water Level (ft-BTOR):	17.1
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:19:00	17.35	200	Clear	5.19	0.378	0.11	6.85	14.53	252	0.2	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
Total Alpha Radium	903	HNO3	1	1	Plastic	yes
Radium 228	904	HNO3	2	1	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

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GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-6D-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-06
Sample Time:	10:24:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:34:00	17.1	300	Clear	6	0.376	1.93	272	15.36	62	0.2	
09:39:00	17.4	200	Clear	5.28	0.374	0.68	60.1	14.55	169	0.2	
09:44:00	17.35	200	Clear	5.17	0.373	0.44	28.8	14.55	193	0.2	
09:54:00	17.35	200	Clear	5.14	0.375	0.26	20.1	14.58	218	0.2	
10:04:00	17.35	200	Clear	5.14	0.377	0.19	12.8	14.58	236	0.2	
10:09:00	17.35	200	Clear	5.15	0.377	0.13	6.99	14.56	242	0.2	
10:14:00	17.35	200	Clear	5.16	0.377	0.12	6.89	14.54	248	0.2	
10:19:00	17.35	200	Clear	5.19	0.378	0.11	6.85	14.53	252	0.2	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-6I-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-06
Sample Time:	12:02:00

WELL INFORMATION:

Well ID:	MSA-DMW-6I
Well Diameter (in):	2
Top Screen (ft-BTOR):	41.28
Bottom Screen (ft-BTOR):	51.28
Total Well Depth (ft-BTOR):	51.28

Purge Date:	2022-06-06
Static Water Level (ft-BTOR):	17.05
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:57:00	17.1	200	Clear	4.24	0.384	0	9.9	15.29	405	0.2	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
Total Alpha Radium	903	HNO3	1	1	Plastic	yes
Radium 228	904	HNO3	2	1	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

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GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-6I-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-06
Sample Time:	12:02:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:52:00	17.05	300	Clear	5.01	0.354	3.5	100	15.02	294	0.2	
10:57:00	17.1	200	Clear	4.46	0.372	0.3	672	14.67	345	0.2	
11:02:00	17.1	200	Clear	4.32	0.38	0	320	14.72	372	0.2	
11:12:00	17.1	200	Clear	4.23	0.381	0	48	14.96	393	0.2	
11:22:00	17.1	200	Clear	4.16	0.383	0	35.7	14.88	400	0.2	
11:32:00	17.1	200	Clear	4.11	0.384	0	24.5	14.94	409	0.2	
11:42:00	17.1	200	Clear	4.18	0.384	0	14.3	15.17	408	0.2	
11:52:00	17.1	200	Clear	4.19	0.384	0	9.95	15.2	406	0.2	
11:57:00	17.1	200	Clear	4.24	0.384	0	9.9	15.29	405	0.2	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-6S-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-06
Sample Time:	14:28:00

WELL INFORMATION:

Well ID:	MSA-DMW-6S
Well Diameter (in):	2
Top Screen (ft-BTOR):	15.54
Bottom Screen (ft-BTOR):	25.54
Total Well Depth (ft-BTOR):	25.54

Purge Date:	2022-06-06
Static Water Level (ft-BTOR):	17.4
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:23:00	17.5	200	Clear	7.37	0.691	0	4.95	17.72	-99	0.3	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Total Alpha Radium	903	HNO3	1	1	Plastic	yes
Radium 228	904	HNO3	2	1	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

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GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-6S-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-06
Sample Time:	14:28:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:38:00	17.4	300	Clear	5.9	0.576	1	500	26.5	6	0.3	
13:43:00	17.5	200	Clear	6.41	0.623	0.5	252	22	-46	0.3	
13:48:00	17.5	200	Clear	6.98	0.68	0	122	18.22	-74	0.3	
13:58:00	17.5	200	Clear	7.26	0.688	0	13.5	17.99	-90	0.3	
14:08:00	17.5	200	Clear	7.33	0.693	0	5.16	17.55	-96	0.3	
14:18:00	17.5	200	Clear	7.34	0.693	0	5	17.6	-97	0.3	
14:23:00	17.5	200	Clear	7.37	0.691	0	4.95	17.72	-99	0.3	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-7D-052022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-20
Sample Time:	07:25:00

WELL INFORMATION:

Well ID:	MSA-DMW-7D
Well Diameter (in):	2
Top Screen (ft-BTOR):	69.15
Bottom Screen (ft-BTOR):	79.15
Total Well Depth (ft-BTOR):	79.15

Purge Date:	2022-05-20
Static Water Level (ft-BTOR):	20.63
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:50:00	20.58	300	Clear	4.56	0.482	0	4.99	20.56	268	0.2	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-7D-052022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-20
Sample Time:	07:25:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:00:00	20.64	300	Clear	4.85	0.515	2.22	50.4	19.75	182	0.2	
09:05:00	20.64	300	Clear	4.57	0.526	0.15	61.9	19.47	218	0.3	
09:10:00	20.64	300	Clear	4.56	0.511	0	35.2	19.36	231	0.2	
09:15:00	20.63	300	Clear	4.55	0.501	0	18.7	19.36	242	0.2	
09:20:00	20.63	300	Clear	4.54	0.498	0	12.6	19.27	247	0.2	
09:25:00	20.62	300	Clear	4.54	0.492	0	12.28	19.41	252	0.2	
09:30:00	20.6	300	Clear	4.54	0.487	0	8.83	19.67	256	0.2	
09:35:00	20.6	300	Clear	4.55	0.486	0	9.05	19.76	259	0.2	
09:40:00	20.59	300	Clear	4.55	0.486	0	7.92	19.8	262	0.2	
09:45:00	20.58	300	Clear	4.55	0.484	0	4.57	20.21	265	0.2	
09:50:00	20.58	300	Clear	4.56	0.482	0	4.99	20.56	268	0.2	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-71-052022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-20
Sample Time:	08:30:00

WELL INFORMATION:

Well ID:	MSA-DMW-71
Well Diameter (in):	2
Top Screen (ft-BTOR):	44.11
Bottom Screen (ft-BTOR):	54.11
Total Well Depth (ft-BTOR):	54.11

Purge Date:	2022-05-19
Static Water Level (ft-BTOR):	20.71
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:25:00	20.65	300	Clear	5.14	0.611	0	8.03	16.78	157	0.3	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-7I-052022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-20
Sample Time:	08:30:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
07:30:00	20.72	300	Clear	5.05	0.581	0.71	106	19.03	228	0.3	
07:35:00	20.71	300	Clear	4.9	0.614	0	82	16.72	191	0.3	
07:40:00	20.71	300	Clear	4.9	0.615	0	77	16.88	180	0.3	
07:45:00	20.71	300	Clear	4.89	0.615	0	46.5	16.76	174	0.3	
07:50:00	20.71	300	Clear	4.91	0.619	0	31.4	16.35	172	0.3	
07:55:00	20.71	300	Clear	4.94	0.612	0	24.5	16.95	169	0.3	
08:00:00	20.7	300	Clear	4.97	0.618	0	29.6	16.92	168	0.3	
08:05:00	20.72	300	Clear	5.02	0.619	0	15.2	17.05	165	0.3	
08:10:00	20.7	300	Clear	5.03	0.614	0	12.4	17.23	165	0.3	
08:15:00	20.68	300	Clear	5.1	0.613	0	11.73	16.71	160	0.3	
08:20:00	20.66	300	Clear	5.16	0.616	0	8.27	16.56	158	0.3	
08:25:00	20.65	300	Clear	5.14	0.611	0	8.03	16.78	157	0.3	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-7S-052022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-20
Sample Time:	11:15:00

WELL INFORMATION:

Well ID:	MSA-DMW-7S
Well Diameter (in):	2
Top Screen (ft-BTOR):	19.77
Bottom Screen (ft-BTOR):	29.77
Total Well Depth (ft-BTOR):	29.77

Purge Date:	2022-05-20
Static Water Level (ft-BTOR):	20.23
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:10:00	20.34	300	Clear	6.39	1.04	0	12.26	21.19	51	0.5	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-7S-052022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-20
Sample Time:	11:15:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:15:00	20.34	300	Clear	6.34	0.834	0	119	23.03	35	0.4	
10:20:00	20.34	300	Clear	6.42	0.843	0	113	22.34	25	0.4	
10:25:00	20.34	300	Clear	6.42	0.863	0	72.6	21.23	30	0.4	
10:30:00	20.34	300	Clear	6.42	0.875	0	53.8	20.9	34	0.4	
10:35:00	20.34	300	Clear	6.42	0.872	0	39.3	21.13	38	0.4	
10:40:00	20.34	300	Clear	6.41	0.88	0	28.4	21.04	41	0.4	
10:45:00	20.34	300	Clear	6.4	1.06	0	22.1	20.39	44	0.5	
10:50:00	20.34	300	Clear	6.41	1.06	0	17.1	20.49	45	0.5	
10:55:00	20.34	300	Clear	6.41	1.04	0	14.6	20.99	46	0.5	
11:00:00	20.34	300	Clear	6.41	1.03	0	13.5	21.39	48	0.5	
11:05:00	20.34	300	Clear	6.4	1.05	0	12	20.88	50	0.5	
11:10:00	20.34	300	Clear	6.39	1.04	0	12.26	21.19	51	0.5	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-9D-051722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-17
Sample Time:	10:32:00

WELL INFORMATION:

Well ID:	MSA-DMW-9D
Well Diameter (in):	2
Top Screen (ft-BTOR):	60.2
Bottom Screen (ft-BTOR):	70.2
Total Well Depth (ft-BTOR):	70.2

Purge Date:	2022-05-17
Static Water Level (ft-BTOR):	7.18
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:27:00	7.23	300	Clear	4.58	0.348	0	26	15.54	99	0.2	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-9D-051722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-17
Sample Time:	10:32:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:32:00	7.23	300	Clear	5.01	0.233	6.07	16.4	15.81	277	0.1	
09:32:00	7.24	300	Cloudy	4.87	0.281	1.3	107	15.69	183	0.1	
09:37:00	7.24	300	Cloudy	4.72	0.302	0.35	-9999	15.82	124	0.1	
09:42:00	7.22	300	Cloudy	4.59	0.325	0.15	-9999	15.51	117	0.2	
09:47:00	7.22	300	Cloudy	4.52	0.333	0.18	674	15.48	113	0.2	
09:52:00	7.22	300	Clear	4.48	0.338	0.17	87.7	15.43	112	0.2	
09:57:00	7.23	300	Clear	4.44	0.34	0.25	43.7	15.42	110	0.2	
10:02:00	7.23	300	Clear	4.42	0.343	1.26	33.3	15.43	110	0.2	
10:07:00	7.23	300	Clear	4.43	0.344	1.26	30.8	15.53	108	0.2	
10:12:00	7.23	300	Clear	4.45	0.345	0.96	22.2	15.57	106	0.2	
10:17:00	7.23	300	Clear	4.48	0.347	0	29.3	15.58	104	0.2	
10:22:00	7.23	300	Clear	4.54	0.348	0	29.7	15.55	101	0.2	
10:27:00	7.23	300	Clear	4.58	0.348	0	26	15.54	99	0.2	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-9I-051722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-17
Sample Time:	11:58:00

WELL INFORMATION:

Well ID:	MSA-DMW-9I
Well Diameter (in):	2
Top Screen (ft-BTOR):	34.7
Bottom Screen (ft-BTOR):	44.7
Total Well Depth (ft-BTOR):	44.7

Purge Date:	2022-05-17
Static Water Level (ft-BTOR):	6.4
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:53:00	6.53	300	Clear	5.8	0.782	0	16.5	18.44	85	0.4	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-9I-051722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-17
Sample Time:	11:58:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:53:00	6.5	300	Cloudy	5.98	0.722	4.81	43.4	19.36	23	0.4	
10:58:00	6.53	300	Clear	6.2	0.819	1.3	30.5	19.17	19	0.4	
11:03:00	6.52	300	Clear	6.23	0.832	0.08	22	18.12	26	0.4	
11:08:00	6.53	300	Clear	6.17	0.825	0.27	14.9	18.56	37	0.4	
11:13:00	6.53	300	Clear	6.07	0.79	0.37	9.63	19.51	53	0.4	
11:18:00	6.53	300	Clear	6.07	0.79	0.37	9.63	19.51	53	0.4	
11:23:00	6.53	300	Clear	6.03	0.786	0.27	11.18	19.5	59	0.4	
11:28:00	6.52	300	Clear	6.01	0.776	0	11.92	19.77	62	0.4	
11:33:00	6.52	300	Clear	5.96	0.768	0	13.2	19.87	68	0.4	
11:38:00	6.53	300	Clear	5.9	0.802	0	15	17.91	73	0.4	
11:43:00	6.53	300	Clear	5.85	0.801	0	15.9	17.84	78	0.4	
11:48:00	6.53	300	Clear	5.82	0.789	0	16.1	18.34	82	0.4	
11:53:00	6.53	300	Clear	5.8	0.782	0	16.5	18.44	85	0.4	

GROUNDWATER SAMPLE LOGSHEET



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-9I-051722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-17
Sample Time:	11:58:00

PHOTOS:

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-9S-051722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-17
Sample Time:	13:20:00

WELL INFORMATION:

Well ID:	MSA-DMW-9S
Well Diameter (in):	2
Top Screen (ft-BTOR):	9.45
Bottom Screen (ft-BTOR):	19.45
Total Well Depth (ft-BTOR):	19.45

Purge Date:	2022-05-17
Static Water Level (ft-BTOR):	5.98
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:15:00	6.22	300	Clear	7.08	0.862	0	4.39	16.92	-125	0.4	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-9S-051722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-17
Sample Time:	13:20:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:30:00	6.24	300	Clear	6.91	1.11	1.47	15.3	22.65	-62	0.6	
12:35:00	6.22	300	Clear	6.96	1.2	0.55	7.09	18.23	-86	0.6	
12:40:00	6.22	300	Clear	7.04	1.15	0	6.12	17.89	-101	0.6	
12:45:00	6.23	300	Clear	7.05	1.11	0	11.8	17.48	-105	0.5	
12:50:00	6.24	300	Clear	7.04	1.07	0	9.64	17.07	-114	0.4	
12:55:00	6.23	300	Clear	7.04	0.899	0	7.66	17.19	-114	0.4	
13:00:00	6.22	300	Clear	7.01	0.833	0	4.99	16.83	-116	0.4	
13:05:00	6.23	300	Clear	6.98	0.87	0	4.25	16.87	-118	0.4	
13:10:00	6.22	300	Clear	7.15	0.869	0	6.15	16.88	-127	0.4	
13:15:00	6.22	300	Clear	7.08	0.862	0	4.39	16.92	-125	0.4	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-111-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-08
Sample Time:	09:40:00

WELL INFORMATION:

Well ID:	MSA-DMW-111
Well Diameter (in):	2
Top Screen (ft-BTOR):	30.56
Bottom Screen (ft-BTOR):	40.56
Total Well Depth (ft-BTOR):	40.56

Purge Date:	2022-06-08
Static Water Level (ft-BTOR):	6.1
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:35:00	6.43	300	Clear	5.81	0.048	0	2.46	15.94	47	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-111-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-08
Sample Time:	09:40:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:25:00	6.34	300	Clear	6.53	0.029	3.17	8.27	19.37	306	0	
08:30:00	6.37	300	Clear	5.46	0.046	0.61	4.44	16.42	96	0	
08:35:00	6.38	300	Clear	5.47	0.055	0.25	5.52	16.01	74	0	
08:40:00	6.39	300	Clear	5.41	0.055	0.09	4.33	15.89	71	0	
08:45:00	6.4	300	Clear	5.41	0.052	0.03	2.96	15.97	68	0	
08:50:00	6.4	300	Clear	5.31	0.05	0	3.48	15.96	77	0	
08:55:00	6.4	300	Clear	5.19	0	0	3.48	15.9	77	0	
09:00:00	6.4	300	Clear	4.99	0.048	0	2.88	15.89	85	0	
09:05:00	6.41	300	Clear	5	0.048	0	3.47	15.89	83	0	
09:10:00	6.41	300	Clear	5.26	0.047	0	3.39	15.82	71	0	
09:15:00	4.62	300	Clear	5.34	0.047	0	3.76	15.87	68	0	
09:20:00	6.42	300	Clear	5.59	0.047	0	3.45	15.9	55	0	
09:25:00	6.42	300	Clear	5.86	0.047	0	3	15.93	46	0	
09:30:00	6.42	300	Clear	5.81	0.048	0	2.52	15.96	48	0	
09:35:00	6.43	300	Clear	5.81	0.048	0	2.46	15.94	47	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-11S-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-09
Sample Time:	10:55:00

WELL INFORMATION:

Well ID:	MSA-DMW-11S
Well Diameter (in):	2
Top Screen (ft-BTOR):	10.01
Bottom Screen (ft-BTOR):	20.01
Total Well Depth (ft-BTOR):	20.01

Purge Date:	2022-06-09
Static Water Level (ft-BTOR):	3.39
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:50:00	4.15	300	Clear	6.8	0.492	0	1.51	16.1	3	0.02	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-DMW-11S-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-09
Sample Time:	10:55:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:00:00	3.81	300	Clear	6.85	0.448	6.85	3.38	17.16	74	0.02	
10:05:00	3.98	300	Clear	6.77	0.419	0.73	5.51	16.77	45	0.02	
10:10:00	4.06	300	Clear	6.67	0.389	0.12	7.07	16.45	36	0.02	
10:15:00	4.08	300	Clear	6.74	0.38	0.02	6.93	16.36	28	0.02	
10:20:00	4.1	300	Clear	6.8	0.409	0	5.07	16.38	20	0.02	
10:25:00	4.12	300	Clear	6.81	0.435	0	3.76	15.98	16	0.02	
10:30:00	4.15	300	Clear	6.8	0.448	0	2.8	16.06	13	0.02	
10:35:00	4.13	300	Clear	6.79	0.46	0	2.49	15.97	11	0.02	
10:40:00	4.13	300	Clear	6.78	0.462	0	2.28	16.22	9	0.02	
10:45:00	4.13	300	Clear	6.77	0.483	0	1.73	16.17	6	0.02	
10:50:00	4.15	300	Clear	6.8	0.492	0	1.51	16.1	3	0.02	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-4-051322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-13
Sample Time:	14:50:00

WELL INFORMATION:

Well ID:	MSA-MW-4
Well Diameter (in):	4
Top Screen (ft-BTOR):	3
Bottom Screen (ft-BTOR):	30
Total Well Depth (ft-BTOR):	30

Purge Date:	2022-05-13
Static Water Level (ft-BTOR):	3.98
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:45:00	4.1	200	Clear	8.05	1.21	0	1.7	17.07	-162	0.6	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Walt B

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-4-051322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-13
Sample Time:	14:50:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:00:00	3.98	300	Clear	6.59	0.938	1.26	35.7	19.17	-10	0.5	
14:05:00	4.1	200	Clear	7.39	1.01	0	8.9	17.1	-110	0.5	
14:10:00	4.1	200	Clear	7.63	1.02	0	8.5	16.94	-133	0.5	
14:20:00	4.1	200	Clear	7.78	1.03	0	8.01	16.94	-147	0.5	
14:30:00	4.1	200	Clear	7.86	1.22	0	5.6	16.8	-152	0.5	
14:35:00	4.1	200	Clear	7.95	1.21	0	1.6	17.01	-156	0.6	
14:40:00	4.1	200	Clear	8	1.21	0	1.6	16.94	-159	0.6	
14:45:00	4.1	200	Clear	8.05	1.21	0	1.7	17.07	-162	0.6	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-6-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-06
Sample Time:	08:57:00

WELL INFORMATION:

Well ID:	MSA-MW-6
Well Diameter (in):	4
Top Screen (ft-BTOR):	14
Bottom Screen (ft-BTOR):	34
Total Well Depth (ft-BTOR):	34

Purge Date:	2022-06-06
Static Water Level (ft-BTOR):	14.11
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:52:00	14.18	200	Clear	6.47	0.695	0	4.83	14.97	-20	0.3	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Watt P

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-6-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-06
Sample Time:	08:57:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:02:00	14.11	300	Clear	5.13	0.702	2.34	165	18.31	73	0.3	
08:07:00	14.18	200	Clear	5.74	0.696	0.57	126	16.25	17	0.3	
08:12:00	14.18	200	Clear	5.93	0.692	0.12	13.9	15.85	6	0.3	
08:22:00	14.18	200	Clear	6.12	0.695	0	5.56	15.37	-4	0.3	
08:32:00	14.18	200	Clear	6.2	0.697	0	5	15.08	-8	0.3	
08:37:00	14.18	200	Clear	6.21	0.697	0	4.95	15.03	-9	0.3	
08:42:00	14.18	200	Clear	6.39	0.697	0	4.9	14.96	-17	0.3	
08:47:00	14.18	200	Clear	6.44	0.696	0	4.85	14.94	-19	0.3	
08:52:00	14.18	200	Clear	6.47	0.695	0	4.83	14.97	-20	0.3	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-14D-052622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-26
Sample Time:	12:30:00

WELL INFORMATION:

Well ID:	MSA-MW-14D
Well Diameter (in):	2
Top Screen (ft-BTOR):	108
Bottom Screen (ft-BTOR):	118
Total Well Depth (ft-BTOR):	118

Purge Date:	2022-05-26
Static Water Level (ft-BTOR):	6.32
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:25:00	7.3	150	Clear	7.55	0.169	1.17	5.54	15.69	25	0.1	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

Hex chrome 1245Missing bolt.

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt F

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-14D-052622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-26
Sample Time:	12:30:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:40:00	6.32	300	Clear	7.53	0.183	1.39	10.5	15.53	-56	0.1	
11:45:00	7.23	150	Clear	7.55	0.176	1.29	8.75	15.53	-38	0.1	
11:50:00	7.3	150	Clear	7.54	0.171	1.24	6.09	15.4	-21	0.1	
12:00:00	7.3	150	Clear	7.53	0.17	1.19	6.07	15.35	-1	0.1	
12:10:00	7.3	150	Clear	7.55	0.169	1.25	6.03	15.38	13	0.1	
12:15:00	7.3	150	Clear	7.54	0.169	1.2	6	15.4	18	0.1	
12:20:00	7.3	150	Clear	7.53	0.169	1.17	5.56	15.46	23	0.1	
12:25:00	7.3	150	Clear	7.55	0.169	1.17	5.54	15.69	25	0.1	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-14I-052622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-26
Sample Time:	11:05:00

WELL INFORMATION:

Well ID:	MSA-MW-14I
Well Diameter (in):	2
Top Screen (ft-BTOR):	40
Bottom Screen (ft-BTOR):	50
Total Well Depth (ft-BTOR):	50

Purge Date:	2022-05-26
Static Water Level (ft-BTOR):	10.25
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:00:00	10.35	200	Clear	6.73	1.53	0	5.16	14.79	-82	0.8	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

Missing bolt.

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Water

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-14I-052622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-26
Sample Time:	11:05:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:15:00	10.25	300	Clear	6.2	1.45	2.77	45.7	16.37	18	0.7	
10:20:00	10.35	200	Clear	6.69	1.46	0.46	15.6	15.35	-60	0.7	
10:25:00	10.35	200	Clear	6.77	1.48	0	9.96	15.04	-74	0.7	
10:35:00	10.35	200	Clear	6.75	1.49	0	5.75	14.82	-79	0.7	
10:45:00	10.35	200	Clear	6.72	1.52	0	5.7	14.81	-80	0.8	
10:50:00	10.35	200	Clear	6.72	1.52	0	5.25	14.78	-80	0.8	
10:55:00	10.35	200	Clear	6.72	1.53	0	5.2	14.78	-81	0.8	
11:00:00	10.35	200	Clear	6.73	1.53	0	5.16	14.79	-82	0.8	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-15D-052622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-26
Sample Time:	14:56:00

WELL INFORMATION:

Well ID:	MSA-MW-15D
Well Diameter (in):	2
Top Screen (ft-BTOR):	57
Bottom Screen (ft-BTOR):	62
Total Well Depth (ft-BTOR):	62

Purge Date:	2022-05-26
Static Water Level (ft-BTOR):	4.1
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:51:00	4.12	200	Clear	5.62	0.047	0.15	5.36	19.03	204	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

WP

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-15D-052622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-26
Sample Time:	14:56:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:46:00	4.1	300	Clear	7.31	0.066	3.14	74.4	21.39	63	0	
13:51:00	4.12	200	Clear	6.49	0.089	1.78	54.5	19.62	21	0	
13:56:00	4.12	200	Clear	6.44	0.104	1.49	12	19.09	64	0	
14:06:00	4.12	200	Clear	6.12	0.073	0.8	10.1	18.64	133	0	
14:16:00	4.12	200	Clear	5.7	0.059	0.47	5.91	18.67	173	0	
14:26:00	4.12	200	Clear	5.52	0.053	0.3	5.75	18.79	185	0	
14:36:00	4.12	200	Clear	5.57	0.049	0.22	5.5	18.9	197	0	
14:41:00	4.12	200	Clear	5.58	0.047	0.17	5.48	18.96	199	0	
14:46:00	4.12	200	Clear	5.6	0.047	0.16	5.4	19.01	201	0	
14:51:00	4.12	200	Clear	5.62	0.047	0.15	5.36	19.03	204	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-16D-052522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-25
Sample Time:	12:40:00

WELL INFORMATION:

Well ID:	MSA-MW-16D
Well Diameter (in):	2
Top Screen (ft-BTOR):	56
Bottom Screen (ft-BTOR):	66
Total Well Depth (ft-BTOR):	66

Purge Date:	2022-05-25
Static Water Level (ft-BTOR):	7.55
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:35:00	7.75	200	Clear	4.39	0.024	0	2.36	14.22	321	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Total Alpha Radium	903	HNO3	1	1	Plastic	yes
Radium 228	904	HNO3	2	1	Plastic	yes

OBSERVATIONS/NOTES:

Hex chrome 1255

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Walt R

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-16D-052522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-25
Sample Time:	12:40:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:50:00	7.55	300	Clear	7.71	0.067	8.2	19.6	14.86	-55	0	
11:55:00	7.8	300	Clear	5.54	0.029	0.35	4.3	14.31	189	0	
12:00:00	7.75	200	Clear	4.89	0.026	0	2.3	4.29	229	0	
12:10:00	7.75	200	Clear	4.54	0.025	0	2.4	14.24	281	0	
12:20:00	7.75	200	Clear	4.39	0.024	0	2.3	14.22	308	0	
12:25:00	7.75	200	Clear	4.36	0.024	0	2.3	14.21	314	0	
12:30:00	7.75	200	Clear	4.34	0.024	0	2.32	14.15	320	0	
12:35:00	7.75	200	Clear	4.39	0.024	0	2.36	14.22	321	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-16I-052522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-25
Sample Time:	10:06:00

WELL INFORMATION:

Well ID:	MSA-MW-16I
Well Diameter (in):	2
Top Screen (ft-BTOR):	35
Bottom Screen (ft-BTOR):	45
Total Well Depth (ft-BTOR):	45

Purge Date:	2022-05-25
Static Water Level (ft-BTOR):	7.25
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:01:00	7.8	200	Clear	3.98	0.086	0.77	3.2	14.12	281	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt P

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-16I-052522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-25
Sample Time:	10:06:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:16:00	7.25	300	Clear	4.11	0.121	4.05	26.9	14.86	288	0.1	
09:21:00	7.8	200	Clear	3.86	0.092	3.29	10.1	14.29	315	0	
09:26:00	7.8	200	Clear	3.82	0.088	3.15	8.65	14.21	332	0	
09:36:00	7.8	200	Clear	3.79	0.086	3	7.1	14.11	346	0	
09:46:00	7.8	200	Clear	3.88	0.086	1.27	4.4	14.09	301	0	
09:51:00	7.8	200	Clear	3.92	0.086	0.75	3.1	14.12	0	-9999	
09:56:00	7.8	200	Clear	3.96	0.086	0.77	3.15	14.13	285	0	
10:01:00	7.8	200	Clear	3.98	0.086	0.77	3.2	14.12	281	0	

GROUNDWATER SAMPLE LOGSHEET



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-16I-052522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-25
Sample Time:	10:06:00

PHOTOS:

Photo ID 1756
Photo Date 2022-05-25
Photo Description:



GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-16S-052522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-25
Sample Time:	11:19:00

WELL INFORMATION:

Well ID:	MSA-MW-16S
Well Diameter (in):	2
Top Screen (ft-BTOR):	10
Bottom Screen (ft-BTOR):	20
Total Well Depth (ft-BTOR):	20

Purge Date:	2022-05-25
Static Water Level (ft-BTOR):	8.2
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:14:00	8.27	200	Clear	6.63	1.88	0	5.18	13.54	-80	0.9	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes
Total Alpha Radium	903	HNO3	1	1	Plastic	yes
Radium 228	904	HNO3	2	1	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Wacht

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-16S-052522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-25
Sample Time:	11:19:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:29:00	8.2	300	Clear	5.69	1.76	1.91	25.6	14.54	25	0.9	
10:34:00	8.27	200	Clear	6.47	1.84	0	19.3	13.7	-60	0.9	
10:39:00	8.27	200	Clear	6.53	1.86	0	10.2	13.59	-69	0.9	
10:49:00	8.27	200	Clear	6.52	1.87	0	7.61	13.57	-71	0.9	
10:59:00	8.27	200	Clear	6.54	1.87	0	5.45	13.56	-75	0.9	
11:04:00	8.27	200	Clear	6.57	1.88	0	5.25	13.54	-77	1	
11:09:00	8.27	200	Clear	6.6	1.88	0	5.2	13.54	-79	0.9	
11:14:00	8.27	200	Clear	6.63	1.88	0	5.18	13.54	-80	0.9	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-17I-061022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-09
Sample Time:	09:50:00

WELL INFORMATION:

Well ID:	MSA-MW-17I
Well Diameter (in):	2
Top Screen (ft-BTOR):	36
Bottom Screen (ft-BTOR):	46
Total Well Depth (ft-BTOR):	46

Purge Date:	2022-06-09
Static Water Level (ft-BTOR):	5.82
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:45:00	6.71	300	Clear	4.25	0.059	0	3.17	14.81	327	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-17I-061022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-09
Sample Time:	09:50:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:40:00	6.34	300	Clear	4.95	0.062	0.67	14	18.69	326	0	
08:45:00	6.46	300	Clear	4.3	0.062	0.11	6.17	17	352	0	
08:50:00	6.58	300	Clear	4.03	0.061	0	3.85	16.43	365	0	
08:55:00	6.61	300	Clear	4.02	0.061	0	2.5	16.01	368	0	
09:00:00	6.63	300	Clear	4.25	0.06	0	2.52	15.87	362	0	
09:05:00	6.65	300	Clear	4.31	0.06	0	2.57	15.79	361	0	
09:10:00	6.65	300	Clear	4.32	0.06	0	3.22	15.41	359	0	
09:15:00	6.65	300	Clear	4.27	0.06	0	3.06	15.46	358	0	
09:20:00	6.65	300	Clear	4.21	0.06	0	2.9	15.4	350	0	
09:25:00	6.67	300	Clear	4.18	0.061	0	3.45	15.18	340	0	
09:30:00	6.69	300	Clear	4.18	0.061	0	3.29	14.9	337	0	
09:35:00	6.71	300	Clear	4.21	0.061	0	2.16	14.66	335	0	
09:40:00	6.71	300	Clear	4.16	0.06	0	4.06	14.75	332	0	
09:45:00	6.71	300	Clear	4.25	0.059	0	3.17	14.81	327	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-17S-061022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-10
Sample Time:	11:15:00

WELL INFORMATION:

Well ID:	MSA-MW-17S
Well Diameter (in):	2
Top Screen (ft-BTOR):	9
Bottom Screen (ft-BTOR):	19
Total Well Depth (ft-BTOR):	19

Purge Date:	2022-06-10
Static Water Level (ft-BTOR):	5.85
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:10:00	8.4	300	Clear	7.66	0.166	0.1	5.12	15.86	23	0.01	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-17S-061022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-10
Sample Time:	11:15:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:10:00	6.38	300	Clear	5.89	0.091	0	20.1	15.58	270	0	
10:15:00	7.08	300	Clear	6.18	0.09	1.93	17.6	15.09	233	0	
10:20:00	7.6	300	Clear	6.45	0.091	1.63	14.8	15.42	216	0	
10:25:00	7.91	300	Clear	6.57	0.096	1.4	16.3	15.3	182	0	
10:30:00	8.12	300	Clear	6.68	0.101	1.17	13	15.37	161	0	
10:35:00	8.3	300	Clear	6.77	0.11	0.94	10.25	15.26	140	0	
10:40:00	8.45	300	Clear	6.85	0.122	0.7	10.63	15.11	116	0.01	
10:45:00	8.5	300	Clear	7.06	0.133	1.46	9.69	15.43	86	0.01	
10:50:00	8.51	300	Clear	7.17	0.139	0.4	7.79	15.36	72	0.01	
10:55:00	8.49	300	Clear	7.41	0.147	0.28	5.91	15.66	54	0.01	
11:00:00	8.44	300	Clear	7.59	0.153	0.21	7.05	15.62	38	0.01	
11:05:00	8.44	300	Clear	7.59	0.161	0.14	6.06	15.64	30	0.01	
11:10:00	8.4	300	Clear	7.66	0.166	0.1	5.12	15.86	23	0.01	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-18I-051822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-18
Sample Time:	10:30:00

WELL INFORMATION:

Well ID:	MSA-MW-18I
Well Diameter (in):	2
Top Screen (ft-BTOR):	40
Bottom Screen (ft-BTOR):	50
Total Well Depth (ft-BTOR):	50

Purge Date:	2022-05-18
Static Water Level (ft-BTOR):	9.54
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:25:00	10.34	300	Clear	6.64	0.847	0	27.8	18.34	-5	0.4	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-18I-051822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-18
Sample Time:	10:30:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:35:00	10.09	300	Clear	7.17	0.517	2.76	764	17.88	-44	0.3	
09:40:00	10.27	300	Clear	6.71	0.852	0.51	86.3	18.25	-5	0.4	
09:45:00	10.3	300	Clear	6.67	1.05	0	48.5	18.41	-1	0.5	
09:50:00	10.28	300	Clear	6.65	1.05	0	41.6	18.45	-1	0.5	
09:55:00	10.23	300	Clear	6.64	1.05	0	32.3	18.48	-1	0.5	
10:00:00	10.21	300	Clear	6.64	1.04	0	31.1	18.46	-2	0.5	
10:05:00	10.24	300	Clear	6.63	0.888	0	28.2	18.41	-2	0.4	
10:10:00	10.27	300	Clear	6.63	0.883	0	30	18.39	-3	0.4	
10:15:00	10.31	300	Clear	6.62	0.87	0	26.8	18.35	-4	0.4	
10:20:00	10.33	300	Clear	6.63	0.857	0	26.6	18.33	-4	0.4	
10:25:00	10.34	300	Clear	6.64	0.847	0	27.8	18.34	-5	0.4	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-18S-051822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-18
Sample Time:	09:15:00

WELL INFORMATION:

Well ID:	MSA-MW-18S
Well Diameter (in):	2
Top Screen (ft-BTOR):	15
Bottom Screen (ft-BTOR):	25
Total Well Depth (ft-BTOR):	25

Purge Date:	2022-05-17
Static Water Level (ft-BTOR):	9.54
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:05:00	14.17	150	Clear	6.94	1.61	0	42.7	15.69	-67	0.8	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-18S-051822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-18
Sample Time:	09:15:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
07:55:00	7.88	300	Brown	8.12	0.87	2.6	-9999	17.95	-73	0.4	
08:00:00	8.96	300	Brown	7.36	0.498	0.06	-9999	16.67	-52	0.3	
08:05:00	9.64	150	Brown	7	0.712	0	-9999	15.82	-51	0.3	
08:10:00	10.3	150	Light brown	6.85	0.737	0	-9999	15.75	-43	0.4	
08:15:00	10.84	150	Clear	6.79	0.773	0	-9999	15.77	-41	0.4	
08:20:00	11.38	150	Clear	6.78	0.808	0	-9999	15.62	-43	0.4	
08:25:00	11.88	150	Clear	6.78	0.855	0	77.4	15.45	-46	0.4	
08:30:00	12.28	150	Clear	6.79	0.897	0	67.5	15.47	-47	0.4	
08:35:00	12.66	150	Clear	6.79	0.941	0	637	15.45	-50	0.5	
08:40:00	12.99	150	Clear	6.81	1.2	0	690	15.4	-53	0.6	
08:45:00	13.3	150	Clear	6.82	1.27	0	57.5	15.41	-55	0.6	
08:50:00	13.57	150	Clear	6.85	1.36	0	45.9	15.42	-58	0.7	
08:55:00	13.78	150	Clear	6.9	1.5	0	45.5	15.5	-61	0.7	
09:00:00	13.97	150	Clear	6.9	1.5	0	34.4	15.69	-64	0.8	
09:05:00	14.17	150	Clear	6.94	1.61	0	42.7	15.69	-67	0.8	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-19D-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	YES

Sampled By:	WP
Sample Date:	2022-06-07
Sample Time:	10:02:00

WELL INFORMATION:

Well ID:	MSA-MW-19D
Well Diameter (in):	2
Top Screen (ft-BTOR):	70
Bottom Screen (ft-BTOR):	80
Total Well Depth (ft-BTOR):	80

Purge Date:	2022-06-07
Static Water Level (ft-BTOR):	5.95
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:57:00	6.2	200	Clear	5.58	0.25	0	2.35	15.74	-26	0.1	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	9	40	Glass Vials	yes
1,4-dioxane	8270D	None	6	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	3	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	3	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

Missing 2 bolts.

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

West

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-19D-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	YES

Sampled By:	WP
Sample Date:	2022-06-07
Sample Time:	10:02:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:27:00	5.95	300	Clear	4.11	0.328	1.59	32.6	18.1	122	0.1	
08:32:00	6.3	200	Clear	5.21	0.179	0.19	16.1	16.94	-2	0.1	
08:37:00	6.2	200	Clear	5.61	0.164	0	13.6	16.34	-36	0.1	
08:47:00	6.2	200	Clear	5.83	0.162	0	8.65	15.91	-50	0.1	
08:57:00	6.2	200	Clear	5.87	0.178	0	8.35	15.69	-51	0.1	
09:02:00	6.2	200	Clear	5.9	0.191	0	8.15	15.66	-52	0.1	
09:12:00	6.2	200	Clear	5.8	0.212	0	7.87	15.55	-46	0.1	
09:22:00	6.2	200	Clear	5.69	0.228	0	6.9	15.59	-39	0.1	
09:32:00	6.2	200	Clear	5.65	0.236	0	5.72	15.6	-35	0.1	
09:42:00	6.2	200	Clear	5.61	0.245	0	2.4	15.73	-30	0.1	
09:52:00	6.2	200	Clear	5.59	0.248	0	2.38	15.73	-28	0.1	
09:57:00	6.2	200	Clear	5.58	0.25	0	2.35	15.74	-26	0.1	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-20D-051322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-13
Sample Time:	12:17:00

WELL INFORMATION:

Well ID:	MSA-MW-20D
Well Diameter (in):	2
Top Screen (ft-BTOR):	60
Bottom Screen (ft-BTOR):	70
Total Well Depth (ft-BTOR):	70

Purge Date:	2022-05-13
Static Water Level (ft-BTOR):	8.55
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:12:00	8.6	180	Clear	5.35	0.232	0	2.75	18.1	260	0.1	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt P.

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-20D-051322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-13
Sample Time:	12:17:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:27:00	8.55	300	Clear	7.49	0.221	5.58	8.07	17.97	181	0.1	
11:32:00	8.6	180	Clear	6.16	0.224	2.16	6.09	17.57	208	0.1	
11:37:00	8.6	180	Clear	6	0.225	1.67	5.03	17.53	220	0.1	
11:47:00	8.6	180	Clear	5.67	0.23	0.59	3.78	17.74	238	0.1	
11:57:00	8.6	180	Clear	5.48	0.232	0.34	2.91	18.05	252	0.1	
12:02:00	8.6	180	Clear	5.41	0.232	0	2.85	18.07	255	0.1	
12:07:00	8.6	180	Clear	5.38	0.232	0	2.8	18.1	257	0.1	
12:12:00	8.6	180	Clear	5.35	0.232	0	2.75	18.1	260	0.1	

GROUNDWATER SAMPLE LOGSHEET



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-20D-051322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-13
Sample Time:	12:17:00

PHOTOS:

Photo ID 1168
Photo Date 2022-05-13
Photo Description:



GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-20I-051322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-13
Sample Time:	11:07:00

WELL INFORMATION:

Well ID:	MSA-MW-20I
Well Diameter (in):	2
Top Screen (ft-BTOR):	35
Bottom Screen (ft-BTOR):	45
Total Well Depth (ft-BTOR):	45

Purge Date:	2022-05-13
Static Water Level (ft-BTOR):	7.11
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:02:00	7.72	180	Clear	7.7	0.136	0.95	5.18	17.47	83	0.1	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt P

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-20I-051322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-13
Sample Time:	11:07:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:12:00	7.11	300	Clear	7.37	0.215	3.92	22	19.12	162	0.1	
10:17:00	7.7	250	Clear	7.66	0.161	3.21	14.4	18.45	155	0.1	
10:22:00	7.72	180	Clear	7.77	0.141	2.69	10.05	18.18	147	0.1	
10:32:00	7.72	180	Clear	7.82	0.134	2	7.45	18.02	126	0.1	
10:42:00	7.72	180	Clear	7.8	0.134	1.67	5.39	17.8	107	0.1	
10:52:00	7.72	180	Clear	7.76	0.135	0.96	5.27	17.59	93	0.1	
10:57:00	7.72	180	Clear	7.72	0.135	0.96	5.2	17.48	86	0.1	
11:02:00	7.72	180	Clear	7.7	0.136	0.95	5.18	17.47	83	0.1	

GROUNDWATER SAMPLE LOGSHEET



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-20I-051322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-13
Sample Time:	11:07:00

PHOTOS:

Photo ID 1165
Photo Date 2022-05-13
Photo Description:



GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-20S-051322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-13
Sample Time:	09:39:00

WELL INFORMATION:

Well ID:	MSA-MW-20S
Well Diameter (in):	2
Top Screen (ft-BTOR):	10
Bottom Screen (ft-BTOR):	20
Total Well Depth (ft-BTOR):	20

Purge Date:	2022-05-13
Static Water Level (ft-BTOR):	7.05
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:34:00	7.5	180	Clear	6.41	0.223	0	9.76	17.04	70	0.1	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Walt Fry

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-20S-051322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-13
Sample Time:	09:39:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:29:00	7.5	180	Clear	6.41	0.223	0	9.95	17.04	74	0.1	
08:49:00	7.05	300	Clear	5.64	0.289	1.17	92.5	18.58	269	0.1	
08:54:00	7.5	180	Clear	6.17	0.273	0.39	68.3	17.84	88	0.1	
08:59:00	7.5	180	Clear	6.35	0.261	0.12	55.1	17.46	72	0.1	
09:09:00	7.5	180	Clear	6.35	0.245	0	18.8	17.22	75	0.1	
09:19:00	7.5	180	Clear	6.37	0.23	0	11	17.15	80	0.1	
09:24:00	7.5	180	Clear	6.39	0.225	0	9.98	17.15	79	0.1	
09:34:00	7.5	180	Clear	6.41	0.223	0	9.76	17.04	70	0.1	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-21D-060322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-03
Sample Time:	10:47:00

WELL INFORMATION:

Well ID:	MSA-MW-21D
Well Diameter (in):	2
Top Screen (ft-BTOR):	70
Bottom Screen (ft-BTOR):	80
Total Well Depth (ft-BTOR):	80

Purge Date:	2022-06-03
Static Water Level (ft-BTOR):	9
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:42:00	9.5	200	Clear	6.39	0.094	0	9.9	17.33	3	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt R

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-21D-060322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-03
Sample Time:	10:47:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:27:00	9	300	Clear	7.13	0.25	1.08	135	17.59	-67	0.1	
09:32:00	9.55	200	Clear	7.02	0.176	0	10.5	16.78	-96	0.1	
09:37:00	9.5	200	Clear	6.88	0.136	0	10.1	16.82	-75	0.1	
09:47:00	9.5	200	Clear	6.53	0.105	0	37.2	17.14	-35	0	
09:57:00	9.5	200	Clear	6.45	0.103	0	20.4	17.26	-19	0	
10:07:00	9.5	200	Clear	6.36	0.1	0	19.2	17.1	-7	0	
10:17:00	9.5	200	Clear	6.34	0.099	0	13.2	17.21	-2	0	
10:22:00	9.5	200	Clear	6.33	0.097	0	12.5	17.32	1	0	
10:32:00	9.5	200	Clear	6.37	0.096	0	9.98	17.24	1	0	
10:37:00	9.5	200	Clear	6.39	0.095	0	9.95	17.31	2	0	
10:42:00	9.5	200	Clear	6.39	0.094	0	9.9	17.33	3	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-211-060322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-03
Sample Time:	09:04:00

WELL INFORMATION:

Well ID:	MSA-MW-211
Well Diameter (in):	2
Top Screen (ft-BTOR):	30
Bottom Screen (ft-BTOR):	40
Total Well Depth (ft-BTOR):	40

Purge Date:	2022-06-03
Static Water Level (ft-BTOR):	8.3
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:59:00	8.31	200	Clear	6.87	1.11	0	5.07	16.96	-73	0.5	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt P.

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-21I-060322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-03
Sample Time:	09:04:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:14:00	8.3	300	Clear	5.73	0.961	2.96	31.3	18.9	31	0.5	
08:19:00	8.31	200	Clear	6.26	0.953	0.43	20.4	17.49	-35	0.5	
08:24:00	8.31	200	Clear	6.48	0.955	0	6.51	16.89	-50	0.5	
08:34:00	8.31	200	Clear	6.74	0.952	0	6.3	16.74	-65	0.5	
08:44:00	8.31	200	Clear	6.83	1.11	0	6.25	16.91	-70	0.5	
08:49:00	8.31	200	Clear	6.86	1.11	0	5.15	16.82	-72	0.5	
08:54:00	8.31	200	Clear	6.86	1.11	0	5.1	16.9	-72	0.5	
08:59:00	8.31	200	Clear	6.87	1.11	0	5.07	16.96	-73	0.5	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-22D-060322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zachary Musser
Sample Date:	2022-06-03
Sample Time:	09:45:00

WELL INFORMATION:

Well ID:	MSA-MW-22D
Well Diameter (in):	2
Top Screen (ft-BTOR):	70
Bottom Screen (ft-BTOR):	80
Total Well Depth (ft-BTOR):	80

Purge Date:	2022-06-03
Static Water Level (ft-BTOR):	8.87
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:40:00	8.96	300	Clear	6.56	0.161	1.85	9.6	18.47	14	0.01	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-22D-060322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zachary Musser
Sample Date:	2022-06-03
Sample Time:	09:45:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:40:00	9.02	300	Clear	7.73	0.072	3.9	57.2	23.67	153	0	
08:45:00	9.05	300	Clear	7.19	0	2.9	45.6	23.47	193	0	
08:50:00	9.06	300	Clear	7.12	0	9.53	42.8	23.42	210	0	
08:55:00	9.07	300	Clear	8.79	0.145	2.56	44.7	23.52	-33	0.01	
09:00:00	9.06	300	Clear	8.18	0.151	2.04	38.5	22.67	-44	0.01	
09:05:00	9.03	300	Clear	7.2	0.152	1.4	34.3	22.05	-28	0.01	
09:10:00	9.03	300	Clear	7.05	0.158	1.68	30.9	19.78	-10	0.01	
09:15:00	9.01	300	Clear	6.89	0.156	1.73	25.4	19.39	-8	0.01	
09:20:00	9	300	Clear	6.86	0.157	1.79	18.1	18.84	-6	0.01	
09:25:00	8.98	300	Clear	6.8	0.159	1.76	13.7	18.21	-1	0.01	
09:30:00	8.96	300	Clear	6.64	0.157	1.68	10.9	18.75	7	0.01	
09:35:00	8.98	300	Clear	6.63	0.159	1.75	10.2	18.65	10	0.01	
09:40:00	8.96	300	Clear	6.56	0.161	1.85	9.6	18.47	14	0.01	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-23D-060322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zachary Musser
Sample Date:	2022-06-03
Sample Time:	13:00:00

WELL INFORMATION:

Well ID:	MSA-MW-23D
Well Diameter (in):	2
Top Screen (ft-BTOR):	76
Bottom Screen (ft-BTOR):	86
Total Well Depth (ft-BTOR):	86

Purge Date:	2022-06-03
Static Water Level (ft-BTOR):	7.77
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:55:00	7.9	300	Clear	6.92	0.146	0	11.8	18.97	-66	0.01	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-23D-060322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zachary Musser
Sample Date:	2022-06-03
Sample Time:	13:00:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:50:00	7.9	300	Clear	7.73	0.148	1.18	1000	18.28	-18	0.01	
11:55:00	7.9	300	Clear	7.32	0.147	1.4	118	18.83	-53	0.01	
12:00:00	7.9	300	Clear	7.18	0.146	0.37	72.8	17.72	-65	0.01	
12:05:00	7.9	300	Clear	7.16	0.143	0.28	61.5	18.14	-71	0.01	
12:10:00	7.9	300	Clear	7.14	0.143	0.22	59.8	18.02	-74	0.01	
12:15:00	7.9	300	Clear	7.25	0.145	0.2	54.6	17.95	-82	0.01	
12:20:00	7.9	300	Clear	7.23	0.144	0.05	48.9	17.67	-82	0.01	
12:25:00	7.9	300	Clear	7.16	0.144	0	45.2	17.92	-84	0.01	
12:30:00	7.9	300	Clear	7.15	0.148	0	41.7	16.66	-85	0.01	
12:35:00	7.9	300	Clear	7.12	0.139	0	28.6	18.97	-42	0.01	
12:40:00	7.9	300	Clear	7.11	0.14	0	23.4	19.04	-49	0.01	
12:45:00	7.9	300	Clear	6.97	0.14	0	13.3	19.1	-60	0.01	
12:50:00	7.9	300	Clear	6.92	0.141	0	12.4	19.05	-65	0.01	
12:55:00	7.9	300	Clear	6.92	0.146	0	11.8	18.97	-66	0.01	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-23S-060322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zachary Musser
Sample Date:	2022-06-03
Sample Time:	11:15:00

WELL INFORMATION:

Well ID:	MSA-MW-23S
Well Diameter (in):	2
Top Screen (ft-BTOR):	17
Bottom Screen (ft-BTOR):	27
Total Well Depth (ft-BTOR):	27

Purge Date:	2022-06-03
Static Water Level (ft-BTOR):	7.25
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:10:00	7.42	300	Clear	7.31	0.331	0.78	20.9	19.08	-60	0.02	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-23S-060322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zachary Musser
Sample Date:	2022-06-03
Sample Time:	11:15:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:20:00	7.45	300	Clear	7.2	0.238	2.1	78.3	18.95	-36	0.01	
10:25:00	7.41	300	Clear	7.21	0.251	0.97	69.2	18.07	-48	0.01	
10:30:00	7.44	300	Clear	7.21	0.278	0.98	58.9	17.46	-50	0.01	
10:35:00	7.44	300	Clear	7.22	0.296	0.72	50.2	16.76	-54	0.01	
10:40:00	7.45	300	Clear	7.22	0.309	0.6	44.8	16.75	-58	0.01	
10:45:00	7.42	300	Clear	7.21	0.301	1.25	35.6	18.54	-54	0.01	
10:50:00	7.42	300	Clear	7.19	0.309	1.02	31.4	18.97	-54	0.01	
10:55:00	7.42	300	Clear	7.21	0.314	0.98	25.3	19.11	-57	0.01	
11:00:00	7.43	300	Clear	7.27	0.324	0.87	20.8	9.14	-60	0.02	
11:05:00	7.42	300	Clear	7.28	0.33	0.91	21.4	19.15	-60	0.02	
11:10:00	7.42	300	Clear	7.31	0.331	0.78	20.9	19.08	-60	0.02	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-24I-060822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-08
Sample Time:	14:15:00

WELL INFORMATION:

Well ID:	MSA-MW-24I
Well Diameter (in):	2
Top Screen (ft-BTOR):	35
Bottom Screen (ft-BTOR):	45
Total Well Depth (ft-BTOR):	45

Purge Date:	2022-06-08
Static Water Level (ft-BTOR):	4.81
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:10:00	5.22	300	Clear	7.23	0.189	0	4.39	16.58	-44	0.01	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-24I-060822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-08
Sample Time:	14:15:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:20:00	5.29	300	Clear	6.61	0.268	0.25	-9999	18.2	35	0.01	
13:25:00	5.2	300	Clear	7.3	0.276	0	14.6	17.6	-17	0.01	
13:30:00	5.2	300	Clear	7.42	0.265	0	15.7	17.27	-31	0.01	
13:35:00	5.2	300	Clear	7.4	0.25	0	11.09	17.41	-35	0.01	
13:40:00	5.2	300	Clear	7.36	0.241	0	8.14	17.18	-38	0.01	
13:45:00	5.2	300	Clear	7.34	0.232	0	8.84	17.12	-40	0.01	
13:55:00	5.22	300	Clear	7.31	0.211	0	6.03	17.45	-44	0.01	
14:00:00	5.22	300	Clear	7.3	0.204	0	4.83	16.78	-45	0.01	
14:05:00	5.22	300	Clear	7.27	0.189	0	4.84	16.68	-44	0.01	
14:10:00	5.22	300	Clear	7.23	0.189	0	4.39	16.58	-44	0.01	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-24S-060822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-08
Sample Time:	12:55:00

WELL INFORMATION:

Well ID:	MSA-MW-24S
Well Diameter (in):	2
Top Screen (ft-BTOR):	15
Bottom Screen (ft-BTOR):	25
Total Well Depth (ft-BTOR):	25

Purge Date:	2022-06-08
Static Water Level (ft-BTOR):	4.01
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:50:00	5.15	300	Clear	4.05	3.05	0	11.2	18	235	0.16	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:20:00	4.6	300	Clear	3.81	2.57	0.61	94	22.32	282	0.13	
11:25:00	4.98	300	Clear	3.81	2.75	0.12	133	18.71	265	0.14	
11:30:00	5.19	300	Clear	3.87	2.91	0	108.8	17.87	255	0.15	
11:35:00	5.15	300	Clear	3.91	3.03	0	70.7	17.43	246	0.16	
11:40:00	5.14	300	Clear	3.96	3.06	0	78.2	17.77	241	0.16	
11:45:00	5.13	300	Clear	3.98	3.11	0	58.3	17.11	239	0.16	
11:50:00	5.16	300	Clear	3.98	3.14	0	44.6	17.06	239	0.16	
11:55:00	5.18	300	Clear	3.97	3.14	0	25.6	17.24	240	0.16	
12:05:00	5.17	300	Clear	3.95	3.12	0	13.8	17.46	239	0.16	
12:10:00	5.15	300	Clear	3.95	3.12	0	17	17.16	237	0.16	
12:15:00	5.15	300	Clear	3.95	3.14	0	9.41	17.35	237	0.16	
12:20:00	5.15	300	Clear	3.99	3.13	0	12.5	17.66	238	0.16	
12:25:00	5.15	300	Clear	3.96	3.12	0	19	17.83	236	0.16	
12:30:00	5.15	300	Clear	3.96	3.1	0	9.78	18.06	235	0.16	
12:35:00	5.17	300	Clear	3.97	3.07	0	15.1	18.16	235	0.16	
12:40:00	5.16	300	Clear	3.97	3.06	0	11.7	18.26	235	0.15	
12:45:00	5.17	300	Clear	3.98	3.05	0	12.5	18.59	233	0.16	
12:50:00	5.15	300	Clear	4.05	3.05	0	11.2	18	235	0.16	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-25I-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-06
Sample Time:	09:40:00

WELL INFORMATION:

Well ID:	MSA-MW-25I
Well Diameter (in):	2
Top Screen (ft-BTOR):	34
Bottom Screen (ft-BTOR):	44
Total Well Depth (ft-BTOR):	44

Purge Date:	2022-06-06
Static Water Level (ft-BTOR):	6.54
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:35:00	6.93	150	Clear	7.34	0.49	0	27.5	15.97	-52	0.01	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-25I-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-06
Sample Time:	09:40:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:25:00	6.83	150	Cloudy	7.27	0.194	3.05	614	17.38	73	0.01	
08:30:00	6.9	150	Clear	7.34	0.17	0.91	43	15.82	22	0.01	
08:35:00	6.9	150	Clear	7.31	0.162	0.31	67.2	15.7	-2	0.01	
08:40:00	6.92	150	Clear	7.32	0.16	0.17	62.9	15.53	-15	0.01	
08:45:00	6.92	150	Clear	7.35	0.158	0.1	51.5	15.58	-25	0.01	
08:50:00	6.91	150	Clear	7.34	0.156	0.03	51	15.68	-31	0.01	
08:55:00	6.92	150	Clear	7.37	0.155	0	46.8	15.77	-36	0.01	
09:00:00	6.92	150	Clear	7.36	0.153	0	46.9	15.82	-40	0.01	
09:05:00	6.92	150	Clear	7.34	0.53	0	49.8	15.87	-42	0.01	
09:10:00	6.92	150	Clear	7.35	0.152	0	39.3	15.86	-45	0.01	
09:15:00	6.92	150	Clear	7.33	0.151	0	40.3	15.88	-47	0.01	
09:20:00	6.93	150	Clear	7.35	0.151	0	33.6	15.91	-48	0.01	
09:25:00	6.93	150	Clear	7.35	0.15	0	33.9	15.95	-50	0.01	
09:30:00	6.93	150	Clear	7.34	0.15	0	28.9	15.92	-51	0.01	
09:35:00	6.93	150	Clear	7.34	0.49	0	27.5	15.97	-52	0.01	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-25S-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-06
Sample Time:	10:55:00

WELL INFORMATION:

Well ID:	MSA-MW-25S
Well Diameter (in):	2
Top Screen (ft-BTOR):	10
Bottom Screen (ft-BTOR):	20
Total Well Depth (ft-BTOR):	20

Purge Date:	2022-06-06
Static Water Level (ft-BTOR):	5.17
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:50:00	7.4	150	Clear	7.19	0.173	0	4.97	15.16	-61	0.01	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-25S-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-06
Sample Time:	10:55:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:00:00	6.3	150	Clear	7.5	0.163	1.45	8.44	16.78	-32	0.01	
10:05:00	7.14	150	Clear	7.43	0.163	0.12	8.04	16.78	-47	0.01	
10:10:00	7.45	150	Clear	7.37	0.162	0	6.67	15.41	-53	0.01	
10:15:00	7.5	150	Clear	7.35	0.163	0	4.98	15.29	-57	0.01	
10:20:00	7.47	150	Clear	7.33	0.163	0	3.73	15.21	-59	0.01	
10:25:00	7.42	150	Clear	7.3	0.163	0	3.85	15.18	-60	0.01	
10:30:00	7.45	150	Clear	7.34	0.165	0	3.71	14.98	-58	0.01	
10:35:00	7.46	150	Clear	7.19	0.166	0	4.67	15.01	-58	0.01	
10:40:00	7.41	150	Clear	7.23	0.167	0	5.37	15.12	-61	0.01	
10:45:00	7.35	150	Clear	7.23	0.169	0	4.14	15.16	-62	0.01	
10:50:00	7.4	150	Clear	7.19	0.173	0	4.97	15.16	-61	0.01	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-27D-051722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-17
Sample Time:	08:35:00

WELL INFORMATION:

Well ID:	MSA-MW-27D
Well Diameter (in):	2.5
Top Screen (ft-BTOR):	175
Bottom Screen (ft-BTOR):	185
Total Well Depth (ft-BTOR):	185

Purge Date:	2022-05-17
Static Water Level (ft-BTOR):	0
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:30:00	0	300	Clear	4.2	0.014	1.81	1.68	14.66	345	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-27D-051722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-17
Sample Time:	08:35:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
07:45:00	0	300	Clear	6.15	0.014	5.16	11.9	19.96	269	0	
07:50:00	0	300	Clear	4.58	0.015	2.39	4.54	15.07	316	0	
07:55:00	0	300	Clear	4.45	0.015	1.96	1.96	14.77	321	0	
08:00:00	0	300	Clear	4.39	0.015	1.79	1.52	14.69	326	0	
08:05:00	0	300	Clear	4.37	0.015	1.74	1.68	14.69	328	0	
08:10:00	0	300	Clear	4.34	0.015	1.72	1.47	14.65	332	0	
08:15:00	0	300	Clear	4.3	0.014	1.98	1.58	14.65	336	0	
08:20:00	0	300	Clear	4.27	0.015	1.72	2.48	14.65	338	0	
08:25:00	0	300	Clear	4.23	0.014	1.74	1.6	14.63	342	0	
08:30:00	0	300	Clear	4.2	0.014	1.81	1.68	14.66	345	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-29D-061522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-14
Sample Time:	11:47:00

WELL INFORMATION:

Well ID:	MSA-MW-29D
Well Diameter (in):	2.5
Top Screen (ft-BTOR):	150
Bottom Screen (ft-BTOR):	160
Total Well Depth (ft-BTOR):	160

Purge Date:	2022-06-14
Static Water Level (ft-BTOR):	4.6
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:42:00	4.7	300	Clear	4.49	0.012	4.76	4.38	16.29	304	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
Total Alpha Radium	903	HNO3	1	1	Plastic	yes
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-29D-061522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-14
Sample Time:	11:47:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:57:00	4.66	300	Clear	7.58	0.03	459	3.96	25.31	135	0	
11:02:00	4.64	300	Clear	5.76	0.018	4.88	4.64	19.69	215	0	
11:07:00	4.67	300	Clear	4.94	0.013	4.74	5.48	19.02	253	0	
11:12:00	4.69	300	Clear	4.56	0.013	4.95	6.75	17.71	275	0	
11:17:00	4.7	300	Clear	4.33	0.013	5.02	7.02	16.78	289	0	
11:22:00	4.7	300	Clear	4.21	0.013	6.26	7.91	16.63	299	0	
11:27:00	4.7	300	Clear	4.48	0.012	4.99	8.82	16.44	294	0	
11:32:00	4.7	300	Clear	4.43	0.012	4.89	7.4	16.34	295	0	
11:37:00	4.7	300	Clear	4.53	0.012	4.82	7.32	16.28	300	0	
11:42:00	4.7	300	Clear	4.49	0.012	4.76	4.38	16.29	304	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-30D-061522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-15
Sample Time:	14:30:00

WELL INFORMATION:

Well ID:	MSA-MW-30D
Well Diameter (in):	2.5
Top Screen (ft-BTOR):	198
Bottom Screen (ft-BTOR):	208
Total Well Depth (ft-BTOR):	208

Purge Date:	2022-06-15
Static Water Level (ft-BTOR):	2.16
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:25:00	2.21	300	Clear	5.58	0.021	1.34	3.76	18.18	196	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-30D-061522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-15
Sample Time:	14:30:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:40:00	2.17	300	Clear	7.35	0.024	1.74	4	21.03	110	0	
13:45:00	2.18	300	Clear	6.15	0.027	1.55	3.75	19.81	146	0	
13:50:00	2.19	300	Clear	5.95	0.021	1.56	5.17	18.7	163	0	
13:55:00	2.19	300	Clear	5.91	0.021	1.51	3.7	18.58	168	0	
14:00:00	2.2	300	Clear	5.84	0.021	1.48	7.28	18.42	173	0	
14:05:00	2.2	300	Clear	5.69	0.021	1.45	4.14	18.4	180	0	
14:10:00	2.2	300	Clear	5.74	0.021	1.52	3.82	18.27	178	0	
14:15:00	2.21	300	Clear	5.62	0.021	1.41	4.43	18.29	184	0	
14:20:00	2.21	300	Clear	5.68	0.021	1.37	3.82	18.28	190	0	
14:25:00	2.21	300	Clear	5.58	0.021	1.34	3.76	18.18	196	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-30I-060822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-07
Sample Time:	09:33:00

WELL INFORMATION:

Well ID:	MSA-MW-30I
Well Diameter (in):	2
Top Screen (ft-BTOR):	35
Bottom Screen (ft-BTOR):	45
Total Well Depth (ft-BTOR):	45

Purge Date:	2022-06-07
Static Water Level (ft-BTOR):	4.86
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:28:00	5.06	300	Clear	5.77	0.081	0	0.05	2.63	233	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-30I-060822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-07
Sample Time:	09:33:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:43:00	5.05	300	Clear	6.03	0.101	0.57	1.99	17.79	276	0	
08:48:00	5.05	300	Clear	6.08	0.097	0.44	2.36	16.7	271	0	
08:53:00	5.05	300	Clear	6.11	0.096	0.39	2.46	15.88	266	0	
08:58:00	5.05	300	Clear	6.07	0.095	0.34	3.07	15.69	263	0	
09:03:00	5.05	300	Clear	5.96	0.092	0.27	2.83	15.6	260	0	
09:08:00	5.05	300	Clear	5.9	0.087	0.27	2.51	15.43	260	0	
09:13:00	5.05	300	Clear	5.87	0.087	0.18	3.95	15.45	256	0	
09:18:00	5.05	300	Clear	5.79	0.083	0.11	2.54	15.35	251	0	
09:23:00	5.06	300	Clear	5.79	0.082	0.08	2.28	15.42	243	0	
09:28:00	5.06	300	Clear	5.77	0.081	0	0.05	2.63	233	0	
14:37:00	5.05	300	Clear	5.52	0.131	1.2	3.74	18.86	288	0.01	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-31D-061522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-15
Sample Time:	13:17:00

WELL INFORMATION:

Well ID:	MSA-MW-31D
Well Diameter (in):	2.5
Top Screen (ft-BTOR):	190
Bottom Screen (ft-BTOR):	200
Total Well Depth (ft-BTOR):	200

Purge Date:	2022-06-15
Static Water Level (ft-BTOR):	1.55
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:12:00	2.02	300	Clear	8.1	0.311	0	5.39	18.61	-79	0.01	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-31D-061522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-15
Sample Time:	13:17:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:22:00	1.81	300	Clear	6.24	0.173	0.35	6.78	20.97	107	0.01	
12:27:00	1.97	300	Clear	6.91	0.257	0	6.7	19.05	22	0.01	
12:32:00	2.02	300	Clear	7.24	0.301	0	6.22	18.33	-7	0.01	
12:37:00	2.02	300	Clear	7.36	0.305	0	5.72	18.12	-20	0.01	
12:42:00	2.02	300	Clear	7.49	0.308	0	5.98	18.12	-32	0.01	
12:47:00	2.02	300	Clear	7.59	0.31	0	11.5	18.21	-43	0.01	
12:57:00	2.02	300	Clear	7.89	0.311	0	6.93	18.34	-63	0.01	
13:02:00	2.02	300	Clear	8.03	0.311	0	6.65	18.48	-71	0.01	
13:07:00	2.02	300	Clear	8.06	0.311	0	5.48	18.58	-75	0.01	
13:12:00	2.02	300	Clear	8.1	0.311	0	5.39	18.61	-79	0.01	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-32I-061022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-10
Sample Time:	11:30:00

WELL INFORMATION:

Well ID:	MSA-MW-32I
Well Diameter (in):	2
Top Screen (ft-BTOR):	55
Bottom Screen (ft-BTOR):	65
Total Well Depth (ft-BTOR):	65

Purge Date:	2022-06-10
Static Water Level (ft-BTOR):	5.6
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:25:00	7.65	100	Clear	6.89	0.312	0	4.9	19.64	-90	0.1	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt R

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-32I-061022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-10
Sample Time:	11:30:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:35:00	5.6	300	Clear	6.01	0.308	1.05	42	17.46	-32	0.1	
10:40:00	6.4	300	Clear	6.22	0.313	0	9.4	17.21	-50	0.1	
10:45:00	7.35	150	Clear	6.49	0.311	0	9.1	18.13	-67	0.1	
10:55:00	7.7	100	Clear	6.69	0.313	0	5.2	18.75	-83	0.1	
11:05:00	7.65	150	Clear	6.91	0.311	0	4.99	19.5	-96	0.1	
11:15:00	7.65	100	Clear	6.9	0.312	0	4.95	19.52	-97	0.1	
11:20:00	7.65	100	Clear	6.92	0.31	0	4.92	19.66	-92	0.1	
11:25:00	7.65	100	Clear	6.89	0.312	0	4.9	19.64	-90	0.1	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-32S-061522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	YES

Sampled By:	Zach Musser
Sample Date:	2022-06-15
Sample Time:	08:43:00

WELL INFORMATION:

Well ID:	MSA-MW-32S
Well Diameter (in):	2
Top Screen (ft-BTOR):	25
Bottom Screen (ft-BTOR):	35
Total Well Depth (ft-BTOR):	35

Purge Date:	2022-06-14
Static Water Level (ft-BTOR):	5.66
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:38:00	7.72	300	Clear	7.07	0.46	0	5.07	20.98	-7	0.02	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-32S-061522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	YES

Sampled By:	Zach Musser
Sample Date:	2022-06-15
Sample Time:	08:43:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
07:53:00	6.3	300	Clear	7.33	0.437	0.67	6.85	21.45	85	0.02	
07:58:00	6.82	300	Clear	7.3	0.437	0.09	5.06	23.24	3	0.02	
08:03:00	7.13	300	Clear	7.43	0.44	0	3.94	22.31	-10	0.02	
08:08:00	7.25	300	Clear	7.44	0.443	0	5.01	21.74	-13	0.02	
08:13:00	7.37	300	Clear	7.48	0.447	0	5.09	21.31	-16	0.02	
08:18:00	7.46	300	Clear	7.49	0.449	0	4.34	21.07	-15	0.02	
08:23:00	7.57	300	Clear	7.42	0.453	0	4.61	20.9	-14	0.02	
08:28:00	7.7	300	Clear	7.26	0.456	0	4.94	20.88	-9	0.02	
08:33:00	7.7	300	Clear	7.14	0.459	0	5.13	20.96	-7	0.02	
08:38:00	7.72	300	Clear	7.07	0.46	0	5.07	20.98	-7	0.02	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-331-060822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-08
Sample Time:	14:32:00

WELL INFORMATION:

Well ID:	MSA-MW-331
Well Diameter (in):	2
Top Screen (ft-BTOR):	60
Bottom Screen (ft-BTOR):	70
Total Well Depth (ft-BTOR):	70

Purge Date:	2022-06-08
Static Water Level (ft-BTOR):	6.6
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:17:00	6.7	200	Clear	7.42	0.131	0	5.38	17.19	-155	0.1	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt A.

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-33I-060822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-08
Sample Time:	14:32:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:57:00	6.6	300	Clear	6.86	0.125	0.93	18.9	19.82	-33	0.1	
13:02:00	6.75	200	Clear	8.75	0.124	0	7.2	18.52	-105	0.1	
13:07:00	6.7	200	Clear	9.34	0.124	0	6.4	18.2	-101	0.1	
13:17:00	6.7	200	Clear	9.31	0.126	0	6.2	17.99	-171	0.1	
13:27:00	6.7	200	Clear	8.57	0.131	0	6.01	17.92	-222	0.1	
13:37:00	6.7	200	Clear	8.13	0.13	0	5.86	17.86	-201	0.1	
13:47:00	6.7	200	Clear	7.84	0.13	0	5.62	18.06	-181	0.1	
13:57:00	6.7	200	Clear	7.65	0.13	0	5.5	17.65	-166	0.1	
14:07:00	6.7	200	Clear	7.86	0.13	0	5.42	17.37	-159	0	
14:17:00	6.7	200	Clear	7.42	0.131	0	5.38	17.19	-155	0.1	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-33S-060822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-08
Sample Time:	12:32:00

WELL INFORMATION:

Well ID:	MSA-MW-33S
Well Diameter (in):	2
Top Screen (ft-BTOR):	34.5
Bottom Screen (ft-BTOR):	44.5
Total Well Depth (ft-BTOR):	44.5

Purge Date:	2022-06-08
Static Water Level (ft-BTOR):	6.5
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:27:00	7.85	100	Clear	6.25	0.08	0	5.09	19.58	-21	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Walt A

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-33S-060822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-08
Sample Time:	12:32:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:12:00	6.5	300	Clear	5.69	0.08	3.51	13.2	22.59	82	0	
11:17:00	7.15	200	Clear	5.93	0.077	1.05	10.15	21.36	25	0	
11:22:00	7.55	150	Clear	5.71	0.077	0	8.65	20.95	26	0	
11:32:00	7.7	100	Clear	5.54	0.077	0	5.49	19.86	25	0	
11:42:00	7.83	100	Clear	6	0.077	0	5.45	19.35	8	0	
11:52:00	7.85	100	Clear	6.17	0.078	0	5.4	18.88	-11	0	
12:02:00	7.85	100	Clear	6.3	0.078	0	5.25	19.42	-19	0	
12:12:00	7.85	100	Clear	6.28	0.078	0	5.16	19.6	-19	0	
12:22:00	7.85	100	Clear	6.26	0.079	0	5.11	19.82	-20	0	
12:27:00	7.85	100	Clear	6.25	0.08	0	5.09	19.58	-21	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-34I-051622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-16
Sample Time:	12:05:00

WELL INFORMATION:

Well ID:	MSA-MW-34I
Well Diameter (in):	2
Top Screen (ft-BTOR):	45
Bottom Screen (ft-BTOR):	55
Total Well Depth (ft-BTOR):	55

Purge Date:	2022-05-16
Static Water Level (ft-BTOR):	4.47
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:00:00	4.74	300	Clear	4.61	0.1	0	6.23	15.42	257	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
1,4-dioxane	8270D	None	2	250	Amber	yes
VOCs	8260C	HCl	3	40	Glass Vials	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-34I-051622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-16
Sample Time:	12:05:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:05:00	4.74	300	Clear	5.14	0.111	5.12	13.1	15.33	268	0.1	
11:10:00	4.73	300	Clear	5.05	0.112	1.29	11.79	15.24	271	0.1	
11:15:00	4.73	300	Clear	5.04	0.111	1.03	11.15	14.97	271	0.1	
11:20:00	4.72	300	Clear	4.96	0.109	0.74	8.75	15.22	272	0.1	
11:25:00	4.72	300	Clear	4.88	0.107	0.55	9.09	15.21	272	0	
11:30:00	4.72	300	Clear	4.78	0.104	0.31	7.22	15.19	270	0	
11:35:00	4.73	300	Clear	4.69	0.102	0.41	6.51	15.12	261	0	
11:40:00	4.73	300	Clear	4.72	0.103	0.18	6.34	15.14	261	0	
11:45:00	4.73	300	Clear	4.68	0.102	0.07	10.76	15.43	255	0	
11:50:00	4.73	300	Clear	4.71	0.1	0.08	7.64	15.42	255	0	
11:55:00	4.73	300	Clear	4.63	0.1	0	8.2	15.38	258	0	
12:00:00	4.74	300	Clear	4.61	0.1	0	6.23	15.42	257	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-34S-051622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-16
Sample Time:	10:20:00

WELL INFORMATION:

Well ID:	MSA-MW-34S
Well Diameter (in):	2
Top Screen (ft-BTOR):	27
Bottom Screen (ft-BTOR):	37
Total Well Depth (ft-BTOR):	37

Purge Date:	2022-05-16
Static Water Level (ft-BTOR):	4.47
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:15:00	4.88	300	Clear	4.46	0.089	0.29	5.06	15.14	285	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
1,4-dioxane	8270D	None	2	250	Amber	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-34S-051622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-16
Sample Time:	10:20:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:25:00	4.8	300	Clear	6.24	0.09	3.73	7.79	16.28	143	0	
09:30:00	4.83	300	Clear	4.7	0.089	2.31	6.22	15.65	215	0	
09:35:00	4.83	300	Clear	4.52	0.082	2.03	6.06	15.36	244	0	
09:40:00	4.83	300	Clear	4.51	0.088	1.8	7.74	15.17	259	0	
09:45:00	4.82	300	Clear	4.52	0.088	0.99	4.82	15.09	268	0	
09:50:00	4.89	300	Clear	4.5	0.088	1.01	4.66	14.82	273	0	
09:55:00	4.87	300	Clear	4.44	0.088	1.81	4.85	15.08	278	0	
10:00:00	4.87	300	Clear	4.51	0.088	0.56	5.16	15.03	278	0	
10:05:00	4.89	300	Clear	4.49	0.088	0.41	4.7	15.03	284	0	
10:10:00	4.89	300	Clear	4.46	0.089	0.32	5.64	15.16	285	0	
10:15:00	4.88	300	Clear	4.46	0.089	0.29	5.06	15.14	285	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-35S-052322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-23
Sample Time:	12:08:00

WELL INFORMATION:

Well ID:	MSA-MW-35S
Well Diameter (in):	2
Top Screen (ft-BTOR):	24
Bottom Screen (ft-BTOR):	34
Total Well Depth (ft-BTOR):	34

Purge Date:	2022-05-23
Static Water Level (ft-BTOR):	8.51
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:03:00	15.33	100	Clear	4.5	0.141	0	4.2	19.07	226	0.1	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes

OBSERVATIONS/NOTES:

Missing bolt.

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Watt B

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-35S-052322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-23
Sample Time:	12:08:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:33:00	8.51	300	Clear	4.39	0.161	1	765	17.45	273	0.1	
10:38:00	9.21	180	Clear	4.42	0.147	0.07	250	17.02	261	0.1	
10:43:00	10.1	100	Clear	4.43	0.144	0	154	17.28	257	0.1	
10:53:00	10.8	100	Clear	4.42	0.147	0	33.7	17.62	253	0.1	
11:03:00	11.61	100	Clear	4.4	0.145	0	12.1	17.91	248	0.1	
11:13:00	12.4	100	Clear	4.35	0.143	0	9.96	18.03	251	0.1	
11:23:00	13.15	100	Clear	4.33	0.143	0	4.83	17.76	248	0.1	
11:33:00	13.82	100	Clear	4.4	0.142	0	4.5	17.85	242	0.1	
11:43:00	14.5	100	Clear	4.46	0.143	0	4.3	18.48	230	0.1	
11:53:00	15	100	Clear	4.48	0.141	0	4.25	18.71	227	0.1	
12:03:00	15.33	100	Clear	4.5	0.141	0	4.2	19.07	226	0.1	

GROUNDWATER SAMPLE LOGSHEET



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-35S-052322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-23
Sample Time:	12:08:00

PHOTOS:

Photo ID 1771
Photo Date 2022-05-23
Photo Description:



GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-36S-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-06
Sample Time:	12:20:00

WELL INFORMATION:

Well ID:	MSA-MW-36S
Well Diameter (in):	2
Top Screen (ft-BTOR):	25
Bottom Screen (ft-BTOR):	35
Total Well Depth (ft-BTOR):	35

Purge Date:	2022-06-06
Static Water Level (ft-BTOR):	6.39
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:15:00	8.72	150	Clear	4.16	0.054	0	1.84	15.99	275	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-36S-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-06
Sample Time:	12:20:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:30:00	7.15	150	Clear	4.92	0.055	1.39	74.1	18.18	178	0	
11:35:00	7.58	150	Clear	4.5	0.057	0.35	13.5	16.09	223	0	
11:40:00	7.93	150	Clear	4.33	0.057	0	5.59	15.81	244	0	
11:45:00	8.16	150	Clear	4.26	0.056	0	4.47	15.82	254	0	
11:50:00	8.3	150	Clear	4.23	0.055	0	2.53	15.79	260	0	
11:55:00	8.39	150	Clear	4.2	0.055	0	1.68	15.8	265	0	
12:00:00	8.48	150	Clear	4.24	0.055	0	0.74	15.85	270	0	
12:05:00	8.6	150	Clear	4.17	0.055	0	1.45	15.87	272	0	
12:10:00	8.69	150	Clear	4.15	0.054	0	2.35	15.89	274	0	
12:15:00	8.72	150	Clear	4.16	0.054	0	1.84	15.99	275	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-37S-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-06
Sample Time:	14:45:00

WELL INFORMATION:

Well ID:	MSA-MW-37S
Well Diameter (in):	2
Top Screen (ft-BTOR):	15
Bottom Screen (ft-BTOR):	25
Total Well Depth (ft-BTOR):	25

Purge Date:	2022-06-06
Static Water Level (ft-BTOR):	6.46
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:40:00	6.54	300	Clear	6.38	0.28	0	4.66	15.2	85	0.01	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-37S-060622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-06
Sample Time:	14:45:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:50:00	6.51	300	Clear	6.15	0.265	2.13	33.4	17.2	133	0.01	
13:55:00	6.53	300	Clear	6.4	0.27	0.45	29.5	16.27	114	0.01	
14:00:00	6.53	300	Clear	6.42	0.271	0	16.5	15.76	103	0.01	
14:05:00	6.53	300	Clear	6.4	0.273	0	11.8	15.78	99	0.01	
14:10:00	6.53	300	Clear	6.44	0.272	0	12.9	15.72	94	0.01	
14:15:00	6.53	300	Clear	6.4	0.274	0	8.69	15.65	93	0.01	
14:20:00	6.53	400	Clear	6.44	0.274	0	10.82	15.61	91	0.01	
14:25:00	6.53	300	Clear	6.39	0.229	0	10.8	15.43	89	0.01	
14:30:00	6.53	300	Clear	6.39	0.278	0	6.46	15.35	87	0.01	
14:35:00	6.54	300	Clear	6.38	0.279	0	4.69	15.25	85	0.01	
14:40:00	6.54	300	Clear	6.38	0.28	0	4.66	15.2	85	0.01	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-38S-060822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-08
Sample Time:	10:02:00

WELL INFORMATION:

Well ID:	MSA-MW-38S
Well Diameter (in):	2
Top Screen (ft-BTOR):	11
Bottom Screen (ft-BTOR):	21
Total Well Depth (ft-BTOR):	21

Purge Date:	2022-06-08
Static Water Level (ft-BTOR):	6.83
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:57:00	6.95	150	Clear	6.2	0.143	0	7.4	16.22	-41	0.1	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-38S-060822
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-08
Sample Time:	10:02:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:27:00	6.83	300	Clear	4.12	0.149	1.19	336	18.31	249	0.1	
08:32:00	6.95	250	Clear	4.51	0.118	0	234	17.24	210	0.1	
08:37:00	6.95	150	Clear	4.34	0.114	0	106	17.49	206	0.1	
08:47:00	6.95	150	Clear	4.43	0.107	0	54.4	16.75	192	0	
08:57:00	6.95	150	Clear	5.13	0.115	0	34.9	16.41	108	0.1	
09:07:00	6.95	150	Clear	5.53	0.127	0	20.2	16.04	45	0.1	
09:17:00	6.95	150	Clear	5.73	0.134	0	11.92	15.87	14	0.1	
09:27:00	6.95	150	Clear	5.79	0.138	0	9.35	15.74	-1	0.1	
09:37:00	6.95	150	Clear	5.85	0.14	0	7.7	16.06	-13	0.1	
09:47:00	6.95	150	Clear	6	0.142	0	7.47	16.1	-25	0.1	
09:57:00	6.95	150	Clear	6.2	0.143	0	7.4	16.22	-41	0.1	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-40I-052722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	YES

Sampled By:	WP
Sample Date:	2022-05-27
Sample Time:	09:13:00

WELL INFORMATION:

Well ID:	MSA-MW-40I
Well Diameter (in):	2
Top Screen (ft-BTOR):	30
Bottom Screen (ft-BTOR):	40
Total Well Depth (ft-BTOR):	40

Purge Date:	2022-05-27
Static Water Level (ft-BTOR):	15.75
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:08:00	15.8	150	Clear	6.19	1.41	0	5.65	15.92	45	0.7	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	9	40	Glass Vials	yes
1,4-dioxane	8270D	None	6	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	3	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	3	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt P

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-40I-052722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	YES

Sampled By:	WP
Sample Date:	2022-05-27
Sample Time:	09:13:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:23:00	15.75	300	Clear	6	1.12	4.17	106	17.06	150	0.6	
08:28:00	15.8	150	Clear	6	1.13	0.35	73.5	16.67	67	0.6	
08:33:00	15.8	150	Clear	5.98	1.13	0	57.9	16.66	62	0.6	
08:43:00	15.8	150	Clear	6.23	1.15	0	14.4	16.35	46	0.6	
08:53:00	15.8	150	Clear	6.14	1.39	0	7.2	16.02	49	0.6	
08:58:00	15.8	150	Clear	6.14	1.4	0	5.8	15.95	48	0.7	
09:03:00	15.8	150	Clear	6.16	1.41	0	5.7	15.91	47	0.7	
09:08:00	15.8	150	Clear	6.19	1.41	0	5.65	15.92	45	0.7	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-40S-052722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-27
Sample Time:	10:40:00

WELL INFORMATION:

Well ID:	MSA-MW-40S
Well Diameter (in):	2
Top Screen (ft-BTOR):	15
Bottom Screen (ft-BTOR):	25
Total Well Depth (ft-BTOR):	25

Purge Date:	2022-05-27
Static Water Level (ft-BTOR):	15.25
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:35:00	16.5	150	Clear	6.96	1.29	0	3.45	15.5	-22	0.6	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

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GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-40S-052722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-27
Sample Time:	10:40:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:50:00	15.25	300	Clear	6.96	1.31	1.31	36.1	16.52	-10	0.5	
09:55:00	15.9	250	Clear	6.99	1.11	0	23	15.6	-18	0.5	
10:00:00	16.4	150	Clear	7.02	1.11	0	14.9	15.67	-21	0.5	
10:10:00	16.5	150	Clear	6.99	1.29	0	7.8	15.55	-21	0.6	
10:20:00	16.5	150	Clear	6.98	1.29	0	4.1	15.49	-21	0.6	
10:25:00	16.5	150	Clear	6.94	1.29	0	3.42	15.48	-21	0.6	
10:30:00	16.5	150	Clear	6.94	1.29	0	3.4	15.51	-21	0.6	
10:35:00	16.5	150	Clear	6.96	1.29	0	3.45	15.5	-22	0.6	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-411-060222
QA/QC Duplicate ID:	MRC-DUP01-060222
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-02
Sample Time:	13:29:00

WELL INFORMATION:

Well ID:	MSA-MW-411
Well Diameter (in):	2
Top Screen (ft-BTOR):	44
Bottom Screen (ft-BTOR):	54
Total Well Depth (ft-BTOR):	54

Purge Date:	2022-06-02
Static Water Level (ft-BTOR):	7.43
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:24:00	7.5	200	Clear	7.04	0.834	0	5.45	19.74	-54	0.4	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	6	40	Glass Vials	yes
1,4-dioxane	8270D	None	4	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	2	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	2	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-41I-060222
QA/QC Duplicate ID:	MRC-DUP01-060222
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-02
Sample Time:	13:29:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:39:00	7.43	300	Clear	7.27	0.292	1.74	12.9	27.72	58	0.1	
12:44:00	7.5	200	Clear	7.52	0.23	0.64	8.85	22.61	56	0.1	
12:49:00	7.5	200	Clear	7.35	0.29	0	5.61	22.29	-28	0.1	
12:59:00	7.5	200	Clear	7.06	0.765	0	5.6	19.99	-52	0.1	
13:09:00	7.5	200	Clear	6.97	0.819	0	5.57	19.79	-49	0.4	
13:14:00	7.5	200	Clear	6.99	0.831	0	5.55	19.9	-51	0.4	
13:19:00	7.5	200	Clear	7.02	0.833	0	5.5	19.45	-53	0.4	
13:24:00	7.5	200	Clear	7.04	0.834	0	5.45	19.74	-54	0.4	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-41S-060222
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-02
Sample Time:	15:02:00

WELL INFORMATION:

Well ID:	MSA-MW-41S
Well Diameter (in):	2
Top Screen (ft-BTOR):	28
Bottom Screen (ft-BTOR):	35
Total Well Depth (ft-BTOR):	35

Purge Date:	2022-06-02
Static Water Level (ft-BTOR):	7.56
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:57:00	8.05	200	Clear	6.56	0.659	0	6.27	18.97	157	0.3	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

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GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-41S-060222
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-02
Sample Time:	15:02:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:02:00	7.56	300	Clear	7.19	0.518	6.5	60.4	23.9	35	0.3	
14:07:00	8.05	200	Clear	6.94	0.516	1.02	30.1	19.67	90	0.2	
14:12:00	8.05	200	Clear	6.95	0.534	50.1	22	19.33	104	0.2	
14:22:00	8.05	200	Clear	7.04	0.555	0	7.85	19.01	113	0.3	
14:32:00	8.05	200	Clear	6.95	0.585	0	7.8	18.98	135	0.3	
14:37:00	8.05	200	Clear	6.71	0.6	0	7.45	18.92	148	0.3	
14:42:00	8.05	200	Clear	6.69	0.645	0	6.95	18.86	150	0.3	
14:47:00	8.05	200	Clear	6.62	0.656	0	6.35	18.84	151	0.3	
14:52:00	8.05	200	Clear	6.58	0.658	0	6.3	18.98	156	0.3	
14:57:00	8.05	200	Clear	6.56	0.659	0	6.27	18.97	157	0.3	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-421-060222
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-27
Sample Time:	10:15:00

WELL INFORMATION:

Well ID:	MSA-MW-421
Well Diameter (in):	2
Top Screen (ft-BTOR):	28
Bottom Screen (ft-BTOR):	33
Total Well Depth (ft-BTOR):	33

Purge Date:	2022-06-02
Static Water Level (ft-BTOR):	6.01
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:10:00	11.1	100	Clear	5.71	0.199	0	1.22	17.98	30	0.1	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

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GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-42I-060222
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-27
Sample Time:	10:15:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:00:00	6.01	300	Clear	6.96	0.219	0.46	62.4	16.66	-105	0.1	
09:05:00	7.1	150	Clear	6.38	0.192	0	8.9	16.02	-28	0.1	
09:10:00	8.1	150	Clear	6.27	0.179	0	7.65	16.34	0	0.1	
09:20:00	9.05	100	Clear	6.19	0.176	0	2.5	16.51	7	0.1	
09:30:00	10.4	100	Clear	5.71	0.17	0	8.55	17.36	38	0.1	
09:40:00	10.7	100	Clear	5.69	0.178	0	8.2	17.7	36	0.1	
09:50:00	10.95	100	Clear	5.7	0.191	0	1.2	17.76	33	0.1	
10:00:00	11	100	Clear	5.7	0.196	0	1.25	17.84	31	0.1	
10:05:00	11.05	100	Clear	5.7	0.197	0	1.23	17.88	31	0.1	
10:10:00	11.1	100	Clear	5.71	0.199	0	1.22	17.98	30	0.1	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-42S-060222
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-02
Sample Time:	11:34:00

WELL INFORMATION:

Well ID:	MSA-MW-42S
Well Diameter (in):	2
Top Screen (ft-BTOR):	5
Bottom Screen (ft-BTOR):	12
Total Well Depth (ft-BTOR):	12

Purge Date:	2022-06-02
Static Water Level (ft-BTOR):	6.02
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:29:00	7.15	100	Clear	6	0.149	0	9.81	23.22	-9	0.1	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

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GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-42S-060222
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-02
Sample Time:	11:34:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:34:00	6.02	300	Clear	6.13	0.137	0.8	32.4	19.96	45	0.1	
10:39:00	6.2	150	Clear	5.65	0.138	0	19.4	19.85	39	0.1	
10:44:00	6.4	120	Clear	5.71	0.138	0	7.68	20.55	30	0.1	
10:54:00	6.57	100	Clear	5.79	0.143	0	14.6	21.55	14	0.1	
11:04:00	6.9	100	Clear	5.85	0.143	0	12.4	22.22	5	0.1	
11:14:00	7.05	100	Clear	5.91	0.15	0	12.4	23.06	-1	0.1	
11:19:00	7.1	100	Clear	5.95	0.149	0	9.95	23.04	-5	0.1	
11:24:00	7.15	100	Clear	5.99	0.15	0	9.85	23.18	-8	0.1	
11:29:00	7.15	100	Clear	6	0.149	0	9.81	23.22	-9	0.1	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-43S-061322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-13
Sample Time:	11:20:00

WELL INFORMATION:

Well ID:	MSA-MW-43S
Well Diameter (in):	2
Top Screen (ft-BTOR):	9
Bottom Screen (ft-BTOR):	14
Total Well Depth (ft-BTOR):	14

Purge Date:	2022-06-14
Static Water Level (ft-BTOR):	10.8
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:15:00	15.95	150	Clear	7.62	0.516	0.01	9.48	19.7	153	0.02	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-43S-061322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-13
Sample Time:	11:20:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:30:00	13.4	300	Clear	7.03	0.503	1.26	10.09	21.28	201	0.02	
10:35:00	13.59	300	Clear	6.81	0.502	0.3	13.54	21.28	201	0.02	
10:40:00	13.97	300	Clear	7.06	0.521	0.05	8.93	17.75	172	0.03	
10:45:00	14.28	150	Clear	7.2	0.513	0.47	7.78	18.42	173	0.02	
10:50:00	14.63	150	Clear	7.53	0.513	0.4	11.32	19.17	166	0.02	
10:55:00	14.13	150	Clear	7.6	0.512	0.29	8.35	19.57	166	0.02	
11:00:00	15.17	150	Clear	7.65	0.516	0.26	7.09	19.64	162	0.02	
11:05:00	15.45	150	Clear	7.72	0.512	0.17	12.24	19.69	158	0.02	
11:10:00	15.7	150	Clear	7.72	0.516	0.08	7.21	19.67	154	0.02	
11:15:00	15.95	150	Clear	7.62	0.516	0.01	9.48	19.7	153	0.02	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-44S-052022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-20
Sample Time:	13:20:00

WELL INFORMATION:

Well ID:	MSA-MW-44S
Well Diameter (in):	2
Top Screen (ft-BTOR):	5
Bottom Screen (ft-BTOR):	15
Total Well Depth (ft-BTOR):	15

Purge Date:	2022-05-20
Static Water Level (ft-BTOR):	1.14
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:15:00	1.19	300	Clear	7.38	1.29	0	4.01	26.28	-251	0.6	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-44S-052022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-05-20
Sample Time:	13:20:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:15:00	1.15	300	Clear	6.81	4.49	7.11	20.3	31.24	-85	2.4	
12:20:00	1.17	300	Clear	6.99	4.76	0	26.5	30.44	-115	2.5	
12:25:00	1.18	300	Clear	7.05	4.51	0	14.1	29.57	-121	2.4	
12:30:00	1.19	300	Clear	7.1	4.13	0	28.4	28.89	-121	2.2	
12:35:00	1.18	300	Clear	7.13	3.53	0	13.8	28.3	-115	1.8	
12:40:00	1.18	300	Clear	7.14	3.02	0	8	27.89	-114	1.6	
12:45:00	1.18	300	Clear	7.15	2.43	0	15.5	27.45	-117	1.2	
12:50:00	1.18	300	Clear	7.2	1.99	0	7.82	27.13	-133	1	
12:55:00	1.19	300	Clear	7.26	1.71	0	5.29	26.91	-163	0.8	
13:00:00	1.19	300	Clear	7.33	1.47	0	5.97	26.64	-214	0.7	
13:05:00	1.19	300	Clear	7.34	1.39	0	6.52	26.47	-232	0.7	
13:10:00	1.19	300	Clear	7.35	1.33	0	7.71	26.37	-242	0.7	
13:15:00	1.19	300	Clear	7.38	1.29	0	4.01	26.28	-251	0.6	

Photo ID

1777

Photo Date

2022-05-20

Photo Description:



GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-45S-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-07
Sample Time:	09:25:00

WELL INFORMATION:

Well ID:	MSA-MW-45S
Well Diameter (in):	2
Top Screen (ft-BTOR):	15
Bottom Screen (ft-BTOR):	25
Total Well Depth (ft-BTOR):	25

Purge Date:	2022-06-07
Static Water Level (ft-BTOR):	7.42
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
09:20:00	7.84	300	Clear	6.05	0.924	0	4.23	15.45	252	0.05	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
1,4-dioxane	8270D	None	2	250	Amber	yes
VOCs	8260C	HCl	3	40	Glass Vials	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	3	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-45S-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-07
Sample Time:	09:25:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:20:00	7.8	300	Clear	6.89	0.797	2.99	5.91	16.31	224	0.04	
08:25:00	7.8	300	Clear	6.61	0.791	0.53	5.99	15.53	229	0.04	
08:30:00	7.8	300	Clear	6.51	0.83	0.18	6.99	15.41	234	0.04	
08:35:00	7.8	300	Clear	6.48	0.857	0.02	2.28	15.39	237	0.04	
08:40:00	7.8	300	Clear	6.36	0.876	0	2.57	15.37	243	0.04	
08:45:00	7.84	300	Clear	6.55	0.888	0	3.35	15.24	234	0.04	
08:50:00	7.84	300	Clear	6.62	0.89	0	3.78	15.2	231	0.04	
08:55:00	7.84	300	Clear	6.56	0.895	0	1.35	15.21	234	0.04	
09:00:00	7.84	300	Clear	6.48	0.898	0	2.91	15.23	235	0.04	
09:05:00	7.84	300	Clear	6.33	0.904	0	1.47	15.23	241	0.04	
09:10:00	7.84	300	Clear	6.19	0.908	0	1.01	15.41	247	0.04	
09:15:00	7.8	300	Clear	6.09	0.916	0	3.55	15.45	250	0.04	
09:20:00	7.84	300	Clear	6.05	0.924	0	4.23	15.45	252	0.05	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-46D-061322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-13
Sample Time:	13:22:00

WELL INFORMATION:

Well ID:	MSA-MW-46D
Well Diameter (in):	2
Top Screen (ft-BTOR):	50
Bottom Screen (ft-BTOR):	60
Total Well Depth (ft-BTOR):	60

Purge Date:	2022-06-13
Static Water Level (ft-BTOR):	11.55
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:17:00	11.73	300	Clear	4.63	0.029	0	6.96	18.01	212	0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-46D-061322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-13
Sample Time:	13:22:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:27:00	11.61	300	Clear	7.03	0.05	0.6	20.2	22.75	0.58	0	
12:32:00	11.62	300	Clear	5.04	0.045	0.34	13.4	20.84	143	0	
12:37:00	11.63	300	Clear	5.13	0.038	0.17	12.13	20.11	186	0	
12:42:00	11.65	300	Clear	5.13	0.035	0.04	11.42	20.13	145	0	
12:47:00	11.66	300	Clear	5.17	0.031	0	9.68	19.49	181	0	
12:52:00	11.67	300	Clear	4.81	0.029	0	8.74	19.13	204	0	
12:57:00	11.69	300	Clear	4.69	0.029	0	10.64	18.26	208	0	
13:02:00	11.7	300	Clear	4.59	0.029	0	7.11	18.11	215	0	
13:07:00	11.71	300	Clear	4.63	0.029	0	6.87	17.89	212	0	
13:12:00	11.72	300	Clear	4.73	0.03	0	7.27	17.99	202	0	
13:17:00	11.73	300	Clear	4.63	0.029	0	6.96	18.01	212	0	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-46I-061322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-13
Sample Time:	14:25:00

WELL INFORMATION:

Well ID:	MSA-MW-46I
Well Diameter (in):	2
Top Screen (ft-BTOR):	35
Bottom Screen (ft-BTOR):	45
Total Well Depth (ft-BTOR):	45

Purge Date:	2022-06-13
Static Water Level (ft-BTOR):	11.22
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:25:00	11.4	300	Clear	5.4	0.311	0	7.77	18.7	210	0.01	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-46I-061322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-13
Sample Time:	14:25:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:40:00	11.32	300	Clear	5.08	0.251	1.2	10.37	23.55	260	0.01	
13:45:00	11.33	300	Clear	5.18	0.249	0.18	10.18	23.4	248	0.01	
13:50:00	11.35	300	Clear	5.33	0.249	0	10.18	22.23	237	0.01	
13:55:00	11.36	300	Clear	5.23	0.249	0	10.17	231	231	0.01	
14:00:00	11.37	300	Clear	5.33	0.25	0	7.1	23.29	229	0.01	
14:05:00	11.38	300	Clear	5.31	0.304	0	6.54	18.85	224	0.01	
14:10:00	11.38	300	Clear	5.23	0.309	0	11.11	18.77	228	0.01	
14:15:00	11.38	300	Clear	5.3	0.312	0	8.5	18.67	221	0.01	
14:20:00	11.39	300	Clear	5.38	0.31	0	7.15	18.73	213	0.01	
14:25:00	11.4	300	Clear	5.4	0.311	0	7.77	18.7	210	0.01	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-46S-061422
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-14
Sample Time:	15:05:00

WELL INFORMATION:

Well ID:	MSA-MW-46S
Well Diameter (in):	2
Top Screen (ft-BTOR):	15
Bottom Screen (ft-BTOR):	25
Total Well Depth (ft-BTOR):	25

Purge Date:	2022-06-14
Static Water Level (ft-BTOR):	10.28
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
15:05:00	17.08	150	Clear	6.62	0.53	0	12.1	16.5	95	0.03	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-46S-061422
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-14
Sample Time:	15:05:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:15:00	11.08	300	Clear	6.75	0.522	5.63	12.5	17.32	171	0.03	
14:20:00	11.56	300	Clear	6.72	0.523	2.09	12	17.06	165	0.03	
14:25:00	12.07	300	Clear	6.68	0.527	0	14.16	16.82	137	0.03	
14:30:00	13.85	300	Clear	6.7	0.528	0	13.63	16.66	123	0.01	
14:35:00	14.31	150	Clear	6.66	0.531	0	12.3	16.66	118	0.03	
14:40:00	15.07	150	Clear	6.66	0.531	0	13.39	16.57	111	0.03	
14:45:00	15.39	150	Clear	6.65	0.531	0	12.42	16.52	107	0.03	
14:50:00	15.98	150	Clear	6.63	0.531	0	12.15	16.52	104	0.03	
14:55:00	16.57	150	Clear	6.63	0.531	0	12	16.5	100	0.03	
15:05:00	17.08	150	Clear	6.62	0.53	0	12.1	16.5	95	0.03	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-47D-061422
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-14
Sample Time:	14:15:00

WELL INFORMATION:

Well ID:	MSA-MW-47D
Well Diameter (in):	2
Top Screen (ft-BTOR):	45
Bottom Screen (ft-BTOR):	55
Total Well Depth (ft-BTOR):	55

Purge Date:	2022-06-14
Static Water Level (ft-BTOR):	12.31
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:15:00	12.49	300	Clear	7.1	0.128	4.89	3.52	17.78	190	0.01	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-47D-061422
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-14
Sample Time:	14:15:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:35:00	12.4	300	Clear	8.27	0.251	4.84	4.84	19	907	0.01	
13:40:00	12.41	300	Clear	7.82	0.163	4.78	4.51	18.34	132	0.01	
13:45:00	12.44	300	Clear	7.4	0.133	4.85	2.91	17.93	154	0.01	
13:50:00	12.48	300	Clear	7.18	0.128	4.89	2.99	17.64	167	0.01	
13:55:00	12.49	300	Clear	7.08	0.126	4.89	3.05	17.78	178	0.01	
14:00:00	12.51	300	Clear	7.04	0.126	4.89	2.85	17.72	183	0.01	
14:05:00	12.52	300	Clear	7.06	0.124	4.87	3.04	17.76	185	0.01	
14:10:00	12.53	300	Clear	7.15	0.124	4.81	3.85	17.85	188	0.01	
14:15:00	12.49	300	Clear	7.1	0.128	4.89	3.52	17.78	190	0.01	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-47I-061422
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-14
Sample Time:	13:17:00

WELL INFORMATION:

Well ID:	MSA-MW-47I
Well Diameter (in):	2
Top Screen (ft-BTOR):	25
Bottom Screen (ft-BTOR):	35
Total Well Depth (ft-BTOR):	35

Purge Date:	2022-06-14
Static Water Level (ft-BTOR):	12
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:12:00	12.39	300	Clear	7.04	1.5	0	7.48	16.17	70	0.07	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-47I-061422
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-14
Sample Time:	13:17:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:27:00	12.29	300	Clear	7.99	1.51	0.66	12.9	18.24	98	0.08	
12:32:00	12.31	300	Clear	7.42	1.5	0.07	12	17.11	76	0.08	
12:37:00	12.32	300	Clear	7.27	1.49	0	11.5	16.82	71	0.07	
12:42:00	12.34	300	Clear	7.2	1.48	0	11.33	16.65	70	0.07	
12:47:00	12.35	300	Clear	7.15	1.48	0	10.9	16.39	69	0.07	
12:57:00	12.37	300	Clear	7.14	1.5	0	8.39	16.38	69	0.08	
13:02:00	12.38	300	Clear	7.09	1.5	0	7	16.28	69	0.07	
13:07:00	12.38	300	Clear	7.04	1.5	0	7.6	16.17	69	0.08	
13:12:00	12.39	300	Clear	7.04	1.5	0	7.48	16.17	70	0.07	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-47S-061422
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-14
Sample Time:	12:03:00

WELL INFORMATION:

Well ID:	MSA-MW-47S
Well Diameter (in):	2
Top Screen (ft-BTOR):	10
Bottom Screen (ft-BTOR):	20
Total Well Depth (ft-BTOR):	20

Purge Date:	2022-06-14
Static Water Level (ft-BTOR):	11.17
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:58:00	13.81	300	Clear	7.42	2.19	0	9.15	16.49	-14	0.11	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-47S-061422
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-14
Sample Time:	12:03:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:13:00	12.73	300	Clear	6.74	2.01	0.61	15.5	18.7	50	0.1	
11:18:00	13.05	300	Clear	7.25	1.85	0.12	9.13	17.32	4	0.09	
11:23:00	7.43	300	Clear	7.43	1.78	0	8.54	17.03	-8	0.09	
11:28:00	13.43	300	Clear	7.51	1.83	0	6.36	16.74	-14	0.09	
11:33:00	13.58	300	Clear	7.5	1.94	0	6.72	16.56	-15	0.1	
11:38:00	13.65	300	Clear	7.48	2.01	0	8.57	16.57	-15	0.1	
11:43:00	13.71	300	Clear	7.5	2.07	0	8.36	16.61	-14	0.11	
11:48:00	13.78	300	Clear	7.43	2.11	0	10.93	16.5	-13	0.11	
11:53:00	13.81	300	Clear	7.41	2.15	0	9.93	16.46	-13	0.11	
11:58:00	13.81	300	Clear	7.42	2.19	0	9.15	16.49	-14	0.11	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-48D-052422
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-24
Sample Time:	14:53:00

WELL INFORMATION:

Well ID:	MSA-MW-48D
Well Diameter (in):	2
Top Screen (ft-BTOR):	40
Bottom Screen (ft-BTOR):	50
Total Well Depth (ft-BTOR):	50

Purge Date:	2022-05-24
Static Water Level (ft-BTOR):	18.43
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:38:00	18.4	200	Clear	6.35	1.46	0	3.69	16.18	13	0.8	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt R.

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-48D-052422
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-24
Sample Time:	14:53:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:03:00	18.37	300	Clear	7.54	1.53	1.84	91.9	16.12	-52	0.8	
14:08:00	18.4	200	Clear	6.62	1.55	0	45.6	15.74	-3	0.8	
14:13:00	18.4	200	Clear	6.54	1.54	0	3.84	15.72	2	0.8	
14:23:00	18.4	200	Clear	6.43	1.51	0	3.8	15.82	8	0.8	
14:33:00	18.4	200	Clear	6.39	1.49	0	3.78	15.88	10	0.8	
14:38:00	18.4	200	Clear	6.34	1.48	0	3.75	15.96	14	0.8	
14:38:00	18.4	200	Clear	6.35	1.46	0	3.69	16.18	13	0.8	
14:43:00	18.4	200	Clear	6.33	1.46	0	3.7	16.04	14	0.8	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-48I-052422
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-24
Sample Time:	13:41:00

WELL INFORMATION:

Well ID:	MSA-MW-48I
Well Diameter (in):	2
Top Screen (ft-BTOR):	25
Bottom Screen (ft-BTOR):	35
Total Well Depth (ft-BTOR):	35

Purge Date:	2022-05-24
Static Water Level (ft-BTOR):	18.5
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:36:00	18.52	200	Clear	7.49	3.41	0	3.7	15.87	-129	1.8	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt Pen

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-48I-052422
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-24
Sample Time:	13:41:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:51:00	18.5	200	Clear	7.89	2.84	1.21	110	16.34	-138	1.4	
12:56:00	18.52	200	Clear	7.66	3.25	0	80	15.97	-132	1.7	
13:01:00	18.52	200	Clear	7.6	3.44	0	21.1	15.95	-129	1.8	
13:11:00	18.52	200	Clear	7.55	3.4	0	21.1	15.95	-129	1.8	
13:21:00	18.52	200	Clear	7.51	3.37	0	7.6	15.9	-129	1.8	
13:26:00	18.52	200	Clear	7.51	3.39	0	3.8	15.9	-129	1.8	
13:31:00	18.52	200	Clear	7.5	3.42	0	3.8	15.83	-130	1.8	
13:36:00	18.52	200	Clear	7.49	3.41	0	3.7	15.87	-129	1.8	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-48S-052422
QA/QC Duplicate ID:	None
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-24
Sample Time:	12:17:00

WELL INFORMATION:

Well ID:	MSA-MW-48S
Well Diameter (in):	2
Top Screen (ft-BTOR):	10
Bottom Screen (ft-BTOR):	20
Total Well Depth (ft-BTOR):	20

Purge Date:	2022-05-24
Static Water Level (ft-BTOR):	18.85
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:12:00	19	200	Clear	7.54	1.25	4.25	6.9	14.33	-53	0.6	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

Hex chrome 1235

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Watt R

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-48S-052422
QA/QC Duplicate ID:	None
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-24
Sample Time:	12:17:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:17:00	18.85	200	Clear	6.88	1.26	6.75	129	17.54	-94	0.6	
11:22:00	19	200	Clear	7.56	1.08	4.35	34.1	16.09	-116	0.5	
11:27:00	19	200	Clear	7.51	1.09	4.09	20.8	15.38	-110	0.5	
11:37:00	19	200	Clear	7.36	1.09	3.92	7.93	14.75	-76	0.5	
11:47:00	19	200	Clear	7.3	1.24	3.89	7.5	14.66	-60	0.6	
11:57:00	19	200	Clear	7.4	1.24	4.1	7.2	14.29	-56	0.6	
12:02:00	19	200	Clear	7.46	1.25	4.17	7	14.3	-56	0.6	
12:07:00	19	200	Clear	7.5	1.25	4.18	6.95	14.35	-55	0.6	
12:12:00	19	200	Clear	7.54	1.25	4.25	6.9	14.33	-53	0.6	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-49D-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-09
Sample Time:	14:30:00

WELL INFORMATION:

Well ID:	MSA-MW-49D
Well Diameter (in):	2
Top Screen (ft-BTOR):	50
Bottom Screen (ft-BTOR):	60
Total Well Depth (ft-BTOR):	60

Purge Date:	2022-06-09
Static Water Level (ft-BTOR):	19.4
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:25:00	19.4	200	Clear	3.65	1.04	0	1.95	18.07	348	0.5	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt P.

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-49D-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-09
Sample Time:	14:30:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:40:00	19.4	300	Clear	4.34	0.696	7.73	14.1	19.12	205	0.3	
13:45:00	19.4	200	Clear	4.18	0.694	2.5	4.4	19.26	238	0.3	
13:50:00	19.4	200	Clear	4.06	0.758	0.74	2.12	17.86	258	0.4	
14:00:00	19.4	200	Clear	3.72	1.01	0	2	17.81	299	0.5	
14:10:00	19.4	200	Clear	3.66	1.04	0	1.95	17.87	328	0.5	
14:10:00	19.4	200	Clear	3.66	1.04	0	1.92	17.92	338	0.5	
14:20:00	19.4	200	Clear	3.65	1.04	0	1.92	18.04	344	0.5	
14:25:00	19.4	200	Clear	3.65	1.04	0	1.95	18.07	348	0.5	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-49I-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-09
Sample Time:	13:05:00

WELL INFORMATION:

Well ID:	MSA-MW-49I
Well Diameter (in):	2
Top Screen (ft-BTOR):	35
Bottom Screen (ft-BTOR):	45
Total Well Depth (ft-BTOR):	45

Purge Date:	2022-06-09
Static Water Level (ft-BTOR):	19.05
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:00:00	19.45	200	Clear	5.64	1.76	0	3.55	17.05	149	0.9	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt P

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-49I-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-09
Sample Time:	13:05:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:15:00	19.05	300	Clear	5.55	1.52	2.98	76.2	17.58	123	0.8	
12:20:00	19.5	200	Clear	5.45	1.66	1.05	59.6	17.14	150	0.8	
12:25:00	19.45	200	Clear	5.53	1.7	0	53.7	17.39	149	0.9	
12:35:00	19.45	200	Clear	5.58	1.71	0	11.6	17.3	149	0.9	
12:45:00	19.45	200	Clear	5.61	1.73	0	5.61	17.25	148	0.9	
12:50:00	19.45	200	Clear	5.63	1.75	0	3.68	17.22	148	0.9	
12:55:00	19.45	200	Clear	5.65	1.76	0	3.61	17.09	148	0.9	
13:00:00	19.45	200	Clear	5.64	1.76	0	3.55	17.05	149	0.9	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-49S-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-09
Sample Time:	11:42:00

WELL INFORMATION:

Well ID:	MSA-MW-49S
Well Diameter (in):	2
Top Screen (ft-BTOR):	20
Bottom Screen (ft-BTOR):	30
Total Well Depth (ft-BTOR):	30

Purge Date:	2022-06-09
Static Water Level (ft-BTOR):	18.9
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:37:00	18.9	200	Clear	6.74	2.52	0	6.49	17.44	22	1.3	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

Hex chrome 1215

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Walt R

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-49S-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-09
Sample Time:	11:42:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
10:42:00	18.9	300	Clear	5.04	2.4	2.82	9.95	22.09	187	1.2	
10:47:00	18.9	200	Clear	6.02	2.48	0.48	8.61	19.16	97	1.3	
10:52:00	18.9	200	Clear	6.4	2.53	0.02	8.23	17.84	58	1.3	
11:02:00	18.9	200	Clear	6.6	2.53	0	8.01	17.68	36	1.3	
11:12:00	18.9	200	Clear	6.68	2.51	0	6.65	17.7	30	1.3	
11:22:00	18.9	200	Clear	6.71	2.51	0	6.6	17.68	25	1.3	
11:27:00	18.9	200	Clear	6.73	2.51	0	6.55	17.72	24	1.3	
11:32:00	18.9	200	Clear	6.73	2.52	0	6.51	17.63	23	1.3	
11:37:00	18.9	200	Clear	6.74	2.52	0	6.49	17.44	22	1.3	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-50D-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-07
Sample Time:	14:48:00

WELL INFORMATION:

Well ID:	MSA-MW-50D
Well Diameter (in):	2
Top Screen (ft-BTOR):	50
Bottom Screen (ft-BTOR):	60
Total Well Depth (ft-BTOR):	60

Purge Date:	2022-06-07
Static Water Level (ft-BTOR):	11.05
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:43:00	11.1	200	Clear	3.32	0.556	0	3.85	16.41	304	0.3	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Watt P

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-50D-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-07
Sample Time:	14:48:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:58:00	11.05	300	Clear	3.01	0.596	2.52	10.5	17.75	351	0.3	
14:03:00	11.1	200	Clear	3.3	0.557	1	9.35	16.6	320	0.3	
14:08:00	11.1	200	Clear	3.34	0.553	0	4.35	16.52	314	0.3	
14:18:00	11.1	200	Clear	3.34	0.55	0	4	16.63	310	0.3	
14:28:00	11.1	200	Clear	3.29	0.556	0	3.95	16.14	309	0.3	
14:33:00	11.1	200	Clear	3.34	0.556	0	3.92	16.24	306	0.3	
14:38:00	11.1	200	Clear	3.34	0.556	0	3.89	16.37	304	0.3	
14:43:00	11.1	200	Clear	3.32	0.556	0	3.85	16.41	304	0.3	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-50I-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-07
Sample Time:	13:33:00

WELL INFORMATION:

Well ID:	MSA-MW-50I
Well Diameter (in):	2
Top Screen (ft-BTOR):	35
Bottom Screen (ft-BTOR):	45
Total Well Depth (ft-BTOR):	45

Purge Date:	2022-06-07
Static Water Level (ft-BTOR):	10.55
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:28:00	10.55	250	Clear	3.02	0.62	1.4	6.4	17.16	470	0.3	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt R...

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-50I-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-07
Sample Time:	13:33:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:43:00	10.55	300	Clear	3.02	0.65	2.6	10.9	17.93	324	0.3	
12:48:00	10.55	250	Clear	3.07	0.625	1.77	9.86	17.54	430	0.3	
12:53:00	10.55	250	Clear	3.08	0.621	1.59	8.5	17.26	456	0.3	
13:03:00	10.55	250	Clear	3.06	0.62	1.45	7.02	17.28	465	0.3	
13:13:00	10.55	250	Clear	3.04	0.619	1.42	6.5	17.31	477	0.3	
13:18:00	10.55	250	Clear	3.04	0.619	0.141	6.45	17.32	475	0.3	
13:23:00	10.55	250	Clear	3.03	0.619	1.4	6.43	17.2	475	0.3	
13:28:00	10.55	250	Clear	3.02	0.62	1.4	6.4	17.16	470	0.3	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-50S-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-07
Sample Time:	12:23:00

WELL INFORMATION:

Well ID:	MSA-MW-50S
Well Diameter (in):	2
Top Screen (ft-BTOR):	20
Bottom Screen (ft-BTOR):	30
Total Well Depth (ft-BTOR):	30

Purge Date:	2022-06-07
Static Water Level (ft-BTOR):	10.6
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:18:00	10.65	150	Clear	3.74	2.49	0	3.94	16.93	240	1.3	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Walt P

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-50S-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-06-07
Sample Time:	12:23:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:03:00	10.6	300	Clear	3.47	0.833	2.82	52.9	18.37	203	0.4	
11:08:00	10.65	200	Clear	3.39	0.843	1.46	43.4	18.33	232	0.4	
11:13:00	10.65	150	Clear	3.32	0.849	1.29	20.1	17.72	247	0.4	
11:23:00	10.65	150	Clear	3.41	0.854	1.16	12.6	17.28	257	0.4	
11:33:00	10.65	150	Clear	3.65	0.856	1.1	8.95	17	256	0.4	
11:38:00	10.65	150	Clear	3.71	0.9	0.77	8.65	16.93	259	0.4	
11:43:00	10.65	150	Clear	3.74	0.988	0.12	6.61	17.29	258	0.5	
11:48:00	10.65	150	Clear	3.72	1.79	0	5.3	17.2	249	0.9	
11:58:00	10.65	150	Clear	3.73	2.29	0	4.12	16.95	242	1.2	
12:08:00	10.65	150	Clear	3.74	2.45	0	4	16.9	240	1.3	
12:13:00	10.65	150	Clear	3.74	2.47	0	3.96	16.94	240	1.3	
12:18:00	10.65	150	Clear	3.74	2.49	0	3.94	16.93	240	1.3	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-51D-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-07
Sample Time:	12:30:00

WELL INFORMATION:

Well ID:	MSA-MW-51D
Well Diameter (in):	2
Top Screen (ft-BTOR):	50
Bottom Screen (ft-BTOR):	60
Total Well Depth (ft-BTOR):	60

Purge Date:	2022-06-07
Static Water Level (ft-BTOR):	7.65
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:25:00	7.59	300	Clear	4.06	1.27	0	0.2	15.76	289	0.06	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-51D-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-07
Sample Time:	12:30:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:25:00	7.69	300	Clear	6.08	0.968	3.08	16.8	16.23	214	0.05	
11:30:00	7.69	300	Clear	6.23	0.925	2.31	17.9	15.82	164	0.05	
11:35:00	7.69	300	Clear	6.12	0.922	1.37	19.3	15.7	151	0.05	
11:40:00	7.6	300	Clear	6.05	0.927	0.66	14.9	15.62	143	0.05	
11:45:00	7.65	300	Clear	5.69	0.933	0.22	12	15.58	151	0.05	
11:50:00	7.65	300	Clear	4.9	1.12	0.22	9.44	15.58	212	0.06	
11:55:00	7.65	300	Clear	4.47	1.19	0	2.87	15.6	249	0.06	
12:00:00	7.61	300	Clear	4.29	1.24	0	1.63	15.62	268	0.06	
12:05:00	7.61	300	Clear	4.22	1.25	0	0.94	15.68	276	0.06	
12:10:00	7.6	300	Clear	4.17	1.27	0	0.23	15.64	281	0.06	
12:15:00	7.6	300	Clear	4.14	1.28	0	0.24	15.68	284	0.06	
12:20:00	7.59	300	Clear	4.14	1.26	0	0.19	15.69	289	0.06	
12:25:00	7.59	300	Clear	4.06	1.27	0	0.2	15.76	289	0.06	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-511-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-07
Sample Time:	14:00:00

WELL INFORMATION:

Well ID:	MSA-MW-511
Well Diameter (in):	2
Top Screen (ft-BTOR):	29
Bottom Screen (ft-BTOR):	39
Total Well Depth (ft-BTOR):	39

Purge Date:	2022-06-07
Static Water Level (ft-BTOR):	7.47
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:55:00	7.5	300	Clear	3.69	0.568	0	0.42	17.61	312	0.03	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-51I-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-07
Sample Time:	14:00:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:05:00	7.51	300	Clear	3.48	0.781	1.69	0.49	18.31	331	0.04	
13:10:00	7.51	300	Clear	3.67	0.634	0.11	0.53	18.59	322	0.03	
13:15:00	7.5	300	Clear	3.71	0.596	0.1	1.89	18.85	317	0.03	
13:20:00	7.5	300	Clear	3.72	0.514	0.04	0.13	18.74	315	0.03	
13:25:00	7.5	300	Clear	3.71	0.579	0	0.4	18.53	315	0.03	
13:30:00	7.5	300	Clear	3.69	0.575	0	0.68	18.21	315	0.03	
13:35:00	7.51	300	Clear	3.71	0.572	0	0.24	18.04	314	0.03	
13:40:00	7.51	300	Clear	3.69	0.571	0	0.68	17.84	313	0.03	
13:45:00	7.5	300	Clear	3.69	0.571	0	0.52	17.67	312	0.03	
13:50:00	7.5	300	Clear	3.69	0.568	0	0.31	17.64	313	0.03	
13:55:00	7.5	300	Clear	3.69	0.568	0	0.42	17.61	312	0.03	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-51S-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-07
Sample Time:	15:10:00

WELL INFORMATION:

Well ID:	MSA-MW-51S
Well Diameter (in):	2
Top Screen (ft-BTOR):	10
Bottom Screen (ft-BTOR):	20
Total Well Depth (ft-BTOR):	20

Purge Date:	2022-06-07
Static Water Level (ft-BTOR):	7.6
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
15:05:00	7.95	300	Clear	5.68	1.58	0	1.09	16.1	247	0.08	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zachary Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-51S-060722
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-07
Sample Time:	15:10:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:20:00	7.88	300	Clear	5.48	2.01	1.7	4.24	17.18	252	0.1	
14:25:00	7.91	300	Clear	5.82	1.9	0.08	2.61	16.42	243	0.1	
14:30:00	7.93	300	Clear	5.81	1.69	0	1.85	16.2	243	0.08	
14:35:00	7.94	300	Clear	5.8	1.63	0	1.08	16.27	242	0.08	
14:40:00	7.95	300	Clear	5.78	1.61	0	0.46	16.19	243	0.08	
14:50:00	7.94	300	Clear	5.78	1.58	0	0.69	16.14	244	0.08	
14:55:00	7.94	300	Clear	5.73	1.58	0	0.77	16.11	244	0.08	
15:00:00	7.95	300	Clear	5.72	1.59	0	1.4	16.13	245	0.08	
15:05:00	7.95	300	Clear	5.68	1.58	0	1.09	16.1	247	0.08	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-52D-061622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-16
Sample Time:	14:20:00

WELL INFORMATION:

Well ID:	MSA-MW-52D
Well Diameter (in):	2
Top Screen (ft-BTOR):	40
Bottom Screen (ft-BTOR):	50
Total Well Depth (ft-BTOR):	50

Purge Date:	2022-06-16
Static Water Level (ft-BTOR):	12.25
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:15:00	12.44	300	Clear	4.35	2.88	0	4.56	21.07	287	0.15	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-52D-061622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-16
Sample Time:	14:20:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:30:00	12.31	300	Clear	4.97	1.42	0.88	7.29	21.82	202	0.07	
13:35:00	12.33	300	Clear	4.64	1.47	0.17	4.23	21.48	215	0.07	
13:40:00	12.35	300	Clear	4.58	1.61	0	4.3	21.34	221	0.08	
13:45:00	12.36	300	Clear	4.51	2.04	0	5.16	21.14	233	0.1	
13:50:00	12.38	300	Clear	4.46	2.39	0	4.59	21.03	243	0.12	
13:55:00	12.38	300	Clear	4.42	2.6	0	3.28	20.96	254	0.13	
14:00:00	12.42	300	Clear	4.39	2.73	0	2.59	20.97	264	0.14	
14:05:00	12.42	300	Clear	4.43	2.82	0	5.36	20.98	274	0.15	
14:10:00	12.43	300	Clear	4.37	2.86	0	4.98	21.02	281	0.15	
14:15:00	12.44	300	Clear	4.35	2.88	0	4.56	21.07	287	0.15	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-52I-061622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-16
Sample Time:	13:20:00

WELL INFORMATION:

Well ID:	MSA-MW-52I
Well Diameter (in):	2
Top Screen (ft-BTOR):	25
Bottom Screen (ft-BTOR):	35
Total Well Depth (ft-BTOR):	35

Purge Date:	2022-06-16
Static Water Level (ft-BTOR):	12.21
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:15:00	12.4	300	Clear	5.9	3.09	0	18.5	19.05	140	0.16	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-52I-061622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-16
Sample Time:	13:20:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:30:00	12.15	300	Clear	7.64	2.93	0.69	27.1	20.77	49	0.15	
12:35:00	12.1	300	Clear	6.52	3.04	0.18	24.5	19.77	112	0.16	
12:40:00	12.08	300	Clear	6.22	3.08	0.06	24.2	19.21	123	0.16	
12:45:00	12.01	300	Clear	6.13	3.09	0.02	24.7	19.09	126	0.16	
12:50:00	12.14	300	Clear	6.04	3.1	0	22.1	19.28	129	0.16	
12:55:00	12.14	300	Clear	5.99	3.08	0	22.3	19.13	134	0.16	
13:00:00	12.32	300	Clear	5.97	3.09	0	20.4	19.24	135	0.16	
13:05:00	12.38	300	Clear	5.92	3.09	0	19.4	19.14	137	0.16	
13:10:00	12.42	300	Clear	5.91	3.09	0	18.6	19.09	139	0.16	
13:15:00	12.4	300	Clear	5.9	3.09	0	18.5	19.05	140	0.16	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-52S-061622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-16
Sample Time:	12:05:00

WELL INFORMATION:

Well ID:	MSA-MW-52S
Well Diameter (in):	2
Top Screen (ft-BTOR):	10
Bottom Screen (ft-BTOR):	20
Total Well Depth (ft-BTOR):	20

Purge Date:	2022-06-16
Static Water Level (ft-BTOR):	12.44
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:00:00	18.82	150	Clear	8.15	1.59	0	5.35	16.79	-95	0.09	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-52S-061622
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-16
Sample Time:	12:05:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:00:00	12.56	150	Clear	7.31	2.02	5.13	30.97	18.34	1	0.09	
11:05:00	12.74	150	Clear	7.35	2.02	1.27	25.24	18.15	0	0.09	
11:10:00	13.25	150	Clear	7.25	2.01	0.03	21.14	18.25	-1	0.09	
11:15:00	13.76	150	Clear	7.38	1.95	0	18.95	18.32	-7	0.09	
11:20:00	14.02	150	Clear	7.45	1.87	0	14.23	18.22	-15	0.09	
11:25:00	14.15	150	Clear	7.62	1.87	0	14.06	17.95	-22	0.09	
11:30:00	14.28	150	Clear	7.64	1.85	0	13.37	17.85	-58	0.09	
11:35:00	15.16	150	Clear	7.92	1.82	0	10.45	16.94	-80	0.09	
11:40:00	16.22	150	Clear	8.02	1.77	0	9.31	16.72	-91	0.09	
11:45:00	17.05	150	Clear	8.06	1.74	0	6.23	16.8	-94	0.09	
11:50:00	17.4	150	Clear	8.11	1.7	0	6.45	16.9	-93	0.09	
11:55:00	17.78	150	Clear	8.13	1.58	0	5.21	16.85	-95	0.09	
12:00:00	18.82	150	Clear	8.15	1.59	0	5.35	16.79	-95	0.09	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-53I-052522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-25
Sample Time:	14:46:00

WELL INFORMATION:

Well ID:	MSA-MW-53I
Well Diameter (in):	2
Top Screen (ft-BTOR):	30
Bottom Screen (ft-BTOR):	40
Total Well Depth (ft-BTOR):	40

Purge Date:	2022-05-25
Static Water Level (ft-BTOR):	11.35
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:41:00	11.95	150	Clear	4.37	0.759	0	4.2	20.56	242	0.4	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt R

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-53I-052522
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-25
Sample Time:	14:46:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:56:00	11.35	300	Clear	3.96	0.741	0.62	40.2	19.89	289	0.4	
14:01:00	11.9	200	Clear	4.17	0.745	0	37.5	19.46	269	0.4	
14:06:00	11.95	150	Clear	4.23	0.756	0	30.21	19.35	264	0.4	
14:16:00	11.95	150	Clear	4.3	0.761	0	20.1	19.59	255	0.4	
14:26:00	11.95	150	Clear	4.34	0.762	0	4.37	19.77	0.4	-9999	
14:31:00	11.95	150	Clear	4.35	0.76	0	4.33	20.32	245	0.4	
14:36:00	11.95	150	Clear	4.35	0.76	0	4.29	20.54	243	0.4	
14:41:00	11.95	150	Clear	4.37	0.759	0	4.2	20.56	242	0.4	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-53S-052322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-23
Sample Time:	14:27:00

WELL INFORMATION:

Well ID:	MSA-MW-53S
Well Diameter (in):	2
Top Screen (ft-BTOR):	15
Bottom Screen (ft-BTOR):	25
Total Well Depth (ft-BTOR):	25

Purge Date:	2022-05-23
Static Water Level (ft-BTOR):	9.7
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:22:00	18.29	100	Clear	5.83	0.734	0	47	25.29	80	0.4	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
GRO	8015C	HCl	2	40	Glass Vials	yes
DRO	8015C	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Watt P

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-53S-052322
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	WP
Sample Date:	2022-05-23
Sample Time:	14:27:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:12:00	9.7	300	Clear	5.63	0.652	0.79	974	22.85	125	0.3	
13:17:00	10.45	200	Clear	5.75	0.716	0.03	754	21.85	92	0.3	
13:22:00	11.4	150	Clear	5.77	0.729	0	610	22.33	87	0.4	
13:32:00	12.3	100	Clear	5.81	0.746	0	449	22.55	83	0.4	
13:42:00	13.63	100	Clear	5.82	0.763	0	294	22.78	82	0.4	
13:52:00	15	100	Clear	5.82	0.747	0	102	23.79	82	0.4	
14:02:00	17.3	100	Clear	5.85	0.743	0	66.2	24.29	81	0.4	
14:12:00	18.01	100	Clear	5.83	0.75	0	46.9	24.96	80	0.4	
14:22:00	18.29	100	Clear	5.83	0.734	0	47	25.29	80	0.4	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-54I-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-09
Sample Time:	15:03:00

WELL INFORMATION:

Well ID:	MSA-MW-54I
Well Diameter (in):	2
Top Screen (ft-BTOR):	35
Bottom Screen (ft-BTOR):	45
Total Well Depth (ft-BTOR):	45

Purge Date:	2022-06-09
Static Water Level (ft-BTOR):	7.92
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:58:00	8.2	300	Clear	5.24	0.421	0	56	18.23	170	0.02	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-54I-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-09
Sample Time:	15:03:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:13:00	8.15	300	Clear	6.94	0.441	0.26	30	21.81	38	0.02	
14:18:00	8.17	300	Clear	5.73	0.45	0	65.1	19.98	107	0.02	
14:23:00	8.19	300	Clear	5.45	0.457	0	69.3	19.18	132	0.02	
14:28:00	8.2	300	Clear	5.27	0.446	0	63.6	19.06	148	0.02	
14:33:00	8.2	300	Clear	5.37	0.44	0	60.6	18.95	149	0.2	
14:38:00	8.2	300	Clear	5.73	0.436	0	69.5	18.45	141	0.02	
14:43:00	8.2	300	Clear	5.39	0.435	0	65.4	18.2	158	0.02	
14:48:00	8.2	300	Clear	5.34	0.43	0	55.9	18.3	161	0.02	
14:53:00	8.2	300	Clear	5.31	0.423	0	55	18.29	165	0.02	
14:58:00	8.2	300	Clear	5.24	0.421	0	56	18.23	170	0.02	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-54S-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-09
Sample Time:	13:30:00

WELL INFORMATION:

Well ID:	MSA-MW-54S
Well Diameter (in):	2
Top Screen (ft-BTOR):	12
Bottom Screen (ft-BTOR):	22
Total Well Depth (ft-BTOR):	22

Purge Date:	2022-06-09
Static Water Level (ft-BTOR):	4.57
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:25:00	8.92	150	Cloudy	6.77	1.26	0	1000	18.39	-47	0.06	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
VOCs	8260C	HCl	3	40	Glass Vials	yes
1,4-dioxane	8270D	None	2	250	Amber	yes
Hexavalent Chromium	218.6-LL	None	1	250	Plastic - Field Filtered	yes
Dissolved PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic - Field Filtered	yes
PP Metals + Mercury	6020B, 7470A	HNO3	1	500	Plastic	yes
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

SIGNATURE:

Latitude	Longitude
0.000000	0.000000

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MSA-MW-54S-060922
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-09
Sample Time:	13:30:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
11:53:00	7.28	150	Cloudy	6.55	1.35	0	1000	18.97	-7	0.07	
11:55:00	5.21	300	White	6.51	1.13	1.53	1000	21.04	29	0.06	
12:00:00	5.61	150	White	6.59	1.21	0.05	1000	20.55	16	0.06	
12:05:00	6.06	150	Cloudy	6.67	1.26	0	1000	19.69	7	0.06	
12:10:00	6.42	150	Cloudy	6.68	1.29	0	1000	19.46	1	0.06	
12:15:00	6.75	150	Cloudy	6.88	1.3	0	1000	19.21	-5	0.06	
12:20:00	7.04	150	Cloudy	6.63	1.32	0	1000	18.76	-6	0.07	
12:30:00	7.49	150	Cloudy	6.49	1.35	0	1000	19.58	-12	0.07	
12:35:00	7.67	150	Cloudy	6.55	1.35	0	1000	19.84	-17	0.07	
12:40:00	7.87	150	Cloudy	6.58	1.34	0	1000	19.85	-22	0.07	
12:45:00	8.02	150	Cloudy	6.58	1.33	0	1000	19.91	-24	0.07	
12:50:00	8.2	150	Cloudy	6.57	1.33	0	1000	19.79	-26	0.07	
12:55:00	8.35	150	Clear	6.59	1.32	0	1000	19.71	-28	0.07	
13:00:00	8.48	150	Cloudy	6.69	1.29	0	1000	20.32	-32	0.07	
13:05:00	8.55	150	Cloudy	6.66	1.29	0	1000	19.57	-35	0.06	
13:10:00	8.64	150	Cloudy	6.69	1.28	0	1000	19.6	-39	0.06	
13:15:00	8.75	150	Cloudy	6.74	1.27	0	1000	19.14	-42	0.06	
13:20:00	8.85	150	Cloudy	6.77	1.26	0	1000	18.6	-44	0.06	
13:25:00	8.92	150	Cloudy	6.77	1.26	0	1000	18.39	-47	0.06	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MT-MW-01S-061022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	YES

Sampled By:	WP
Sample Date:	2022-06-10
Sample Time:	14:15:00

WELL INFORMATION:

Well ID:	MT-MW-01S
Well Diameter (in):	2
Top Screen (ft-BTOR):	8
Bottom Screen (ft-BTOR):	18
Total Well Depth (ft-BTOR):	18

Purge Date:	2022-06-10
Static Water Level (ft-BTOR):	1.8
PID Monitor Reading:	0.0
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
14:10:00	9.75	100	Clear	6.81	0.168	0	1.34	24.31	-72	0.1	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
GRO	8015C	HCl	6	40	Glass Vials	yes
DRO	8015C	None	6	250	Amber	yes

OBSERVATIONS/NOTES:

Well needs a total repair.

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Walt Pz

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MT-MW-01S-061022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	YES

Sampled By:	WP
Sample Date:	2022-06-10
Sample Time:	14:15:00

PURGE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
12:50:00	1.8	300	Clear	6.61	0.543	1.01	257	23	-89	0.2	
12:55:00	3	150	Clear	6.78	0.5	0.48	95.6	22.95	-92	0.2	
13:00:00	4.7	100	Clear	6.84	436	0	14.3	22.9	-94	0.2	
13:10:00	6.05	100	Clear	6.87	0.243	0	6.12	24.43	-99	0.1	
13:20:00	7.05	100	Clear	6.93	0.212	0	2.3	25.15	-95	0.1	
13:30:00	8.1	100	Clear	6.63	0.199	0	2.21	24.6	-84	0.1	
13:40:00	8.55	100	Clear	6.7	0.181	0	1.35	24.29	-78	0.1	
13:50:00	8.7	100	Clear	6.77	0.184	0	1.35	24.67	-76	0.1	
14:00:00	9.25	100	Clear	6.76	0.181	0	1.38	24.39	-73	0.1	
14:10:00	9.75	100	Clear	6.81	0.168	0	1.34	24.31	-72	0.1	

GROUNDWATER SAMPLE LOGSHEET



Project No	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MT-MW-02S-061022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-10
Sample Time:	13:35:00

WELL INFORMATION:

Well ID:	MT-MW-02S
Well Diameter (in):	2
Top Screen (ft-BTOR):	8
Bottom Screen (ft-BTOR):	20
Total Well Depth (ft-BTOR):	20

Purge Date:	2022-06-10
Static Water Level (ft-BTOR):	6.8
PID Monitor Reading:	
Purge Method:	Low Flow
Sample Method:	Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument:	Horiba U 52
Turbidity Meter:	LaMotte 2020WE

Pump Controller:	Geotech Geopump Peristaltic Pump
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FINAL PURGE / SAMPLE DATA:

Time	Water Level (ft-BTOR):	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
13:30:00	11.29	150	Clear	6.83	0.336	0	7.14	24.55	-3	0.02	

ANALYSIS, PRESERVATION AND BOTTLE REQUIREMENTS:

Analysis	Method	Preservative	Number	Volume	Bottle Type	Collected
DRO	8015C	None	2	250	Amber	yes
GRO	8015C	HCl	3	40	Glass Vials	yes

OBSERVATIONS/NOTES:

COORDINATES:

Latitude	Longitude
0.000000	0.000000

SIGNATURE:

Zach Musser

GROUNDWATER SAMPLE LOGSHEET - PURGE DATA



Project No:	112IC09567-02-GW Field
Project Site:	Lockheed-MSA
Event:	MSA-Annual Groundwater 2022

Sampled ID:	MT-MW-02S-061022
QA/QC Duplicate ID:	NA
MS/MSD Collected:	NO

Sampled By:	Zach Musser
Sample Date:	2022-06-10
Sample Time:	13:35:00

PURGE DATA:

Time	Water Level (ft-BTOR)	Flow (mL/min)	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp (Deg C)	ORP (mV)	Salinity (ppt)	Other
08:40:00	7.68	300	Clear	6.76	0.326	0.32	15.8	26.21	-11	0.02	
12:45:00	8.19	300	Clear	6.74	0.324	0.06	9.85	25.55	-10	0.02	
12:50:00	8.59	300	Clear	6.76	0.323	0	11.4	25.05	-9	0.02	
12:55:00	8.91	300	Clear	6.84	0.323	0	8.6	24.95	-13	0.02	
13:00:00	9.22	300	Clear	6.82	0.324	0	5.78	24.91	-13	0.02	
13:05:00	9.55	300	Clear	6.84	0.323	0	5.81	24.87	-14	0.02	
13:10:00	9.9	300	Clear	6.91	0.326	0	4.54	24.81	-16	0.02	
13:15:00	10.28	300	Clear	6.81	0.324	0	6.64	24.69	-13	0.02	
13:20:00	10.61	150	Clear	6.78	0.325	0	6.74	24.66	-11	0.02	
13:25:00	10.9	150	Clear	6.81	0.327	0	6.87	24.65	-13	0.02	
13:30:00	11.29	150	Clear	6.83	0.336	0	7.14	24.55	-3	0.02	

APPENDIX C—WASTE DISPOSAL DOCUMENTATION

Site Address: 701 Wilson Point Road
Baltimore MD 21220

SC PPW 5/1/2022

WORK ORDER NO: 110833807

DOCUMENT NO. 0530254

STRAIGHT BILL OF LADING

TRANSPORTER 1 Clean Harbors Environmental Services, Inc. VEHICLE ID # 5261
 EPA ID # MAD039322250 TRANS. 1 PHONE (781) 792-5000
 TRANSPORTER 2 _____ VEHICLE ID # _____
 EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY Clean Harbors El Dorado LLC			SHIPPER ATTN: Josh Mullis Lockheed Martin		
FACILITY EPA ID # ARD069748192			SHIPPER EPA ID # MDR000018750		
ADDRESS 303 American Circle			ADDRESS 100 Chesapeake Park Plaza		
CITY El Dorado	STATE AR	ZIP 71730	CITY Baltimore	STATE MD	ZIP 21220
CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	DM		A. <u>NON DOT REGULATED</u>	1	200
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		
SPECIAL HANDLING INSTRUCTIONS EMERGENCY PHONE #: (800) 483-3718 GENERATOR: Lockheed Martin A.CH2468840 1x55					

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

SHIPPER	PRINT <u>Josh Mullis</u>	SIGN <u>[Signature]</u>	DATE <u>8-19-22</u>
TRANSPORTER 1	PRINT <u>Malik Crawford</u>	SIGN <u>[Signature]</u>	DATE <u>8-19-22</u>
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE

4

Generator acknowledges that no material change has occurred either in the characteristics or in the process generating the material.



WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH2468840

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # **MDR000518760** GENERATOR NAME: **Lockheed Martin**
 GENERATOR CODE (Assigned by Clean Harbors) **LO2553** CITY **Baltimore** STATE/PROVINCE **MD** ZIP/POSTAL CODE **21220**
 ADDRESS **701 Wilson Point Road** PHONE: **(301) 528-3004**
 CUSTOMER CODE (Assigned by Clean Harbors) **TE0740** CUSTOMER NAME: **Tetra Tech Inc**
 ADDRESS **20251 Century Boulevard Suite 200** CITY **Germantown** STATE/PROVINCE **MD** ZIP/POSTAL CODE **20874**

B. WASTE DESCRIPTION

WASTE DESCRIPTION: **Main Terminal Purge Water**

PROCESS GENERATING WASTE: **Groundwater sampling at the Main Terminal**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE SOLID WITHOUT FREE LIQUID POWDER MONOLITHIC SOLID <input checked="" type="checkbox"/> LIQUID WITH NO SOLIDS LIQUID/SOLID MIXTURE % FREE LIQUID % SETTLED SOLID % TOTAL SUSPENDED SOLID SLUDGE GAS/AEROSOL	NUMBER OF PHASES/LAYERS <input checked="" type="checkbox"/> 1 2 3 TOP 0.00 % BY VOLUME (Approx.) MIDDLE 0.00 BOTTOM 0.00				VISCOSITY (If liquid present) <input checked="" type="checkbox"/> 1 - 100 (e.g. Water) 101 - 500 (e.g. Motor Oil) 501 - 10,000 (e.g. Molasses) > 10,000		COLOR <u>Varies</u>				
	ODOR <input checked="" type="checkbox"/> NONE MILD STRONG Describe:		BOILING POINT °F (°C) <= 95 (<=35) 95 - 100 (35-38) 101 - 129 (38-54) <input checked="" type="checkbox"/> >= 130 (>54)		MELTING POINT °F (°C) < 140 (<60) 140-200 (60-93) > 200 (>93)			TOTAL ORGANIC CARBON <input checked="" type="checkbox"/> <= 1% 1-9% >= 10%			
	FLASH POINT °F (°C) < 73 (<23) 73 - 100 (23-38) 101 -140 (38-60) 141 -200 (60-93) <input checked="" type="checkbox"/> > 200 (>93)		pH <= 2 2.1 - 6.9 7 (Neutral) <input checked="" type="checkbox"/> 7.1 - 12.4 >= 12.5		SPECIFIC GRAVITY < 0.8 (e.g. Gasoline) 0.8-1.0 (e.g. Ethanol) <input checked="" type="checkbox"/> 1.0 (e.g. Water) 1.0-1.2 (e.g. Antifreeze) > 1.2 (e.g. Methylene Chloride)				ASH < 0.1 > 20 0.1 - 1.0 <input checked="" type="checkbox"/> Unknown 1.1 - 5.0 5.1 - 20.0		BTU/LB (MJ/kg) <input checked="" type="checkbox"/> < 2,000 (<4.6) 2,000-5,000 (4.6-11.6) 5,000-10,000 (11.6-23.2) > 10,000 (>23.2) Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	MAX	UOM
2-BUTANONE (ETHYL METHYL KETONE)	0.0060000	0.0060000	PPM
4-METHYL-2-PENTANONE (MIBK)	0.0010000	0.0010000	PPM
ACETONE	0.0250000	0.0250000	PPM
BARIUM (TCLP)	0.0060000	0.0060000	PPM
BENZENE	0.0010000	0.0010000	PPM
CIS-1,2-DICHLOROETHENE (CIS-DCE)	0.0010000	0.0010000	PPM
HFPODA	0.0009200	0.0009200	PPB
PERFLUOROBUTANESULFONIC ACID (PFBS)	0.0043000	0.0043000	PPB
PERFLUORODECANOIC ACID	0.0013000	0.0013000	PPB
PERFLUORODODECANOIC ACID	0.0005400	0.0005400	PPB

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. **G44**

SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. **W113**

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				<input checked="" type="checkbox"/>
D005	BARIIUM	100.0				<input checked="" type="checkbox"/>
D006	CADMIUM	1.0				<input checked="" type="checkbox"/>
D007	CHROMIUM	5.0				<input checked="" type="checkbox"/>
D008	LEAD	5.0				<input checked="" type="checkbox"/>
D009	MERCURY	0.2				<input checked="" type="checkbox"/>
D010	SELENIUM	1.0				<input checked="" type="checkbox"/>
D011	SILVER	5.0				<input checked="" type="checkbox"/>

VOLATILE COMPOUNDS			OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
D018	BENZENE	0.5	BROMINE			<input checked="" type="checkbox"/>
D019	CARBON TETRACHLORIDE	0.5	CHLORINE			<input checked="" type="checkbox"/>
D021	CHLOROBENZENE	100.0	FLUORINE			<input checked="" type="checkbox"/>
D022	CHLOROFORM	6.0	IODINE			<input checked="" type="checkbox"/>
D028	1,2-DICHLOROETHANE	0.5	SULFUR			<input checked="" type="checkbox"/>
D029	1,1-DICHLOROETHYLENE	0.7	POTASSIUM			<input checked="" type="checkbox"/>
D035	METHYL ETHYL KETONE	200.0	SODIUM			<input checked="" type="checkbox"/>
D039	TETRACHLOROETHYLENE	0.7	AMMONIA			<input checked="" type="checkbox"/>
D040	TRICHLOROETHYLENE	0.5	CYANIDE AMENABLE			<input checked="" type="checkbox"/>
D043	VINYL CHLORIDE	0.2	CYANIDE REACTIVE			<input checked="" type="checkbox"/>
			CYANIDE TOTAL			<input checked="" type="checkbox"/>
			SULFIDE REACTIVE			<input checked="" type="checkbox"/>

SEMI-VOLATILE COMPOUNDS		
D023	o-CRESOL	200.0
D024	m-CRESOL	200.0
D025	p-CRESOL	200.0
D026	CRESOL (TOTAL)	200.0
D027	1,4-DICHLOROBENZENE	7.5
D030	2,4-DINITROTOLUENE	0.13
D032	HEXACHLOROBENZENE	0.13
D033	HEXACHLOROBUTADIENE	0.5
D034	HEXACHLOROETHANE	3.0
D036	NITROBENZENE	2.0
D037	PENTACHLOROPHENOL	100.0
D038	PYRIDINE	5.0
D041	2,4,5-TRICHLOROPHENOL	400.0
D042	2,4,6-TRICHLOROPHENOL	2.0

HOCs <input checked="" type="checkbox"/> NONE <input type="checkbox"/> < 1000 PPM <input type="checkbox"/> >= 1000 PPM	PCBs <input checked="" type="checkbox"/> NONE <input type="checkbox"/> < 50 PPM <input type="checkbox"/> >=50 PPM IF PCBs ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
--	---

PESTICIDES AND HERBICIDES		
D012	ENDRIN	0.02
D013	LINDANE	0.4
D014	METHOXYCHLOR	10.0
D015	TOXAPHENE	0.5
D016	2,4-D	10.0
D017	2,4,5-TP (SILVEX)	1.0
D020	CHLORDANE	0.03
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES NO (If yes, explain)

CHOOSE ALL THAT APPLY

- DEA REGULATED SUBSTANCES
- EXPLOSIVE
- FUMING
- OSHA REGULATED CARCINOGENS
- POLYMERIZABLE
- RADIOACTIVE
- REACTIVE MATERIAL
- NONE OF THE ABOVE

F. REGULATORY STATUS

YES NO USEPA HAZARDOUS WASTE?
 YES NO DO ANY STATE WASTE CODES APPLY?
 Texas Waste Code _____
 YES NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?
 YES NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?
 LDR CATEGORY: **Not subject to LDR**
 VARIANCE INFO: _____
 YES NO IS THIS A UNIVERSAL WASTE?
 YES NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS A VERY SMALL QUANTITY GENERATOR (VSQG) OR A STATE EQUIVALENT DESIGNATION?
 YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?
 YES NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?
 YES NO IS THIS WASTE STREAM PROHIBITED FROM INCINERATION BASED ON THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?
 YES NO IS THIS WASTE STREAM "USED OIL" WHICH IS TO BE MANAGED UNDER 40 CFR PART 279 - STANDARDS FOR THE MANAGEMENT OF USED OIL?
 YES NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?
 YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?
 YES NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 76.6 KPA (11.1 PSIA)?
 YES NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?
 YES NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?
 Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)
 YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?
 YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?
 YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?
 What is the TAB quantity for your facility? _____ Megagram/year (1 Mg = 2,200 lbs)
 The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing
 Describe the knowledge : _____

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NON DOT REGULATED

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER

CONTAINERIZED

BULK LIQUID

BULK SOLID

1-1 CONTAINERS/SHIPMENT

GALLONS/SHIPMENT: **0 Min - 0 Max**

GAL.

SHIPMENT UOM:

TON

YARD

STORAGE CAPACITY: **20**

TONS/YARDS/SHIPMENT: **0 Min - 0 Max**

CONTAINER TYPE:

PORTABLE TOTE TANK

BOX|CARTON|CASE

CUBIC YARD BOX

DRUM

OTHER:

DRUM SIZE: **55**

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE

NAME (PRINT)
Anthony Apanavage

TITLE
Project Lead

DATE
08/07/2022

Addendum

D. COMPOSITION

CHEMICAL	MIN	MAX	UOM
PERFLUOROHEPTANOIC ACID	0.015000	0.015000	PPB
PERFLUOROHXANESULFONIC ACID	0.006600	0.006600	PPB
PERFLUOROHXANOIC ACID (PFHXA)	0.022000	0.022000	PPB
PERFLUORONONANOIC ACID	0.003200	0.003200	PPB
PERFLUOROOCCTANE SULFONIC ACID	0.002400	0.002400	PPB
PERFLUOROOCCTANOIC ACID	0.008500	0.008500	PPB
PERFLUOROUNDECANOIC ACID	0.001300	0.001300	PPB
TOLUENE	0.001000	0.001000	PPM
TOTAL XYLENES	0.001000	0.001000	PPM
TRICHLOROETHENE	0.002000	0.002000	PPM
WATER	99.000000	100.000000	%

F. REGULATORY STATUS

ANALYTICAL REPORT

Job Number: 240-168405-1

Job Description: MSA Annual GW

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874
Attention: Josh Mullis

Roxanne Cisneros

Approved for release.
Roxanne Cisneros
Senior Project Manager
7/7/2022 8:08 AM

Roxanne Cisneros, Senior Project Manager
180 S. Van Buren Avenue, Barberton, OH, 44203
(615)301-5761
roxanne.cisneros@et.eurofinsus.com
07/07/2022

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Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Qualifiers

LCMS

Qualifier	Qualifier Description
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Job Narrative
240-168405-1

Comments

No additional comments.

Receipt

The sample was received on 6/16/2022 4:40 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.3° C.

LCMS

Method 537 (modified): The sample injection standard peak areas in the following sample: MSA-WC-MTW-061522 (240-168405-1) are outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

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

Organic Prep

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

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Client Sample ID: MSA-WC-MTW-061522

Lab Sample ID: 240-168405-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	22		1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluoroheptanoic acid	15		1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid	8.5		1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorononanoic acid	3.2		1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorodecanoic acid	1.3	J	1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorobutanesulfonic acid	4.3	I	1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorohexanesulfonic acid	6.6		1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorooctanesulfonic acid	2.4		1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorododecanoic acid	0.54	J	1.7	0.43	ng/L	1		537 IDA	Total/NA
HFPODA	0.92	J	2.6	0.86	ng/L	1		537 IDA	Total/NA
Perfluoroundecanoic acid	1.1	J	1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorohexanoic acid - RA	22		1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluoroheptanoic acid - RA	15		1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorooctanoic acid - RA	7.3		1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorononanoic acid - RA	3.4		1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorodecanoic acid - RA	1.2	J	1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorobutanesulfonic acid - RA	6.6	I	1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorohexanesulfonic acid - RA	7.0		1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorooctanesulfonic acid - RA	2.3		1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluorododecanoic acid - RA	0.57	J	1.7	0.43	ng/L	1		537 IDA	Total/NA
Perfluoroundecanoic acid - RA	1.0	J	1.7	0.43	ng/L	1		537 IDA	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Client Sample ID: MSA-WC-MTW-061522

Lab Sample ID: 240-168405-1

Date Collected: 06/15/22 11:00

Matrix: Water

Date Received: 06/17/22 09:22

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	22		1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
Perfluoroheptanoic acid	15		1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
Perfluorooctanoic acid	8.5		1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
Perfluorononanoic acid	3.2		1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
Perfluorodecanoic acid	1.3	J	1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
Perfluorotridecanoic acid	0.43	U	1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
Perfluorotetradecanoic acid	0.43	U	1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
Perfluorobutanesulfonic acid	4.3	I	1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
Perfluorohexanesulfonic acid	6.6		1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
Perfluorooctanesulfonic acid	2.4		1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
NEtFOSAA	0.43	U	2.6	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
NMeFOSAA	0.52	U	1.7	0.52	ng/L		06/27/22 09:03	07/02/22 16:24	1
Perfluorododecanoic acid	0.54	J	1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
HFPODA	0.92	J	2.6	0.86	ng/L		06/27/22 09:03	07/02/22 16:24	1
9Cl-PF3ONS	0.43	U	1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
11Cl-PF3OUdS	0.43	U	1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
DONA	0.43	U	1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
Perfluoroundecanoic acid	1.1	J	1.7	0.43	ng/L		06/27/22 09:03	07/02/22 16:24	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFHxA	70		24 - 179				06/27/22 09:03	07/02/22 16:24	1
13C4 PFHpA	79		31 - 182				06/27/22 09:03	07/02/22 16:24	1
13C8 PFOA	91		48 - 162				06/27/22 09:03	07/02/22 16:24	1
13C9 PFNA	67		51 - 167				06/27/22 09:03	07/02/22 16:24	1
13C6 PFDA	78		49 - 163				06/27/22 09:03	07/02/22 16:24	1
13C2-PFDoDA	74		17 - 176				06/27/22 09:03	07/02/22 16:24	1
13C2 PFTeDA	59		10 - 179				06/27/22 09:03	07/02/22 16:24	1
13C3 PFBS	174		16 - 200				06/27/22 09:03	07/02/22 16:24	1
13C3 PFHxS	116		28 - 188				06/27/22 09:03	07/02/22 16:24	1
13C8 PFOS	86		51 - 159				06/27/22 09:03	07/02/22 16:24	1
d3-NMeFOSAA	58		31 - 174				06/27/22 09:03	07/02/22 16:24	1
d5-NEtFOSAA	65		29 - 195				06/27/22 09:03	07/02/22 16:24	1
13C3 HFPO-DA	64		17 - 185				06/27/22 09:03	07/02/22 16:24	1
13C7 PFUnA	79		34 - 174				06/27/22 09:03	07/02/22 16:24	1

Method: 537 IDA - EPA 537 Isotope Dilution - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	22		1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
Perfluoroheptanoic acid	15		1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
Perfluorooctanoic acid	7.3		1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
Perfluorononanoic acid	3.4		1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
Perfluorodecanoic acid	1.2	J	1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
Perfluorotridecanoic acid	0.43	U	1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
Perfluorotetradecanoic acid	0.43	U	1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
Perfluorobutanesulfonic acid	6.6	I	1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
Perfluorohexanesulfonic acid	7.0		1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
Perfluorooctanesulfonic acid	2.3		1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
NEtFOSAA	0.43	U	2.6	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
NMeFOSAA	0.52	U	1.7	0.52	ng/L		06/27/22 09:03	07/06/22 12:07	1
Perfluorododecanoic acid	0.57	J	1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Client Sample ID: MSA-WC-MTW-061522

Lab Sample ID: 240-168405-1

Date Collected: 06/15/22 11:00

Matrix: Water

Date Received: 06/17/22 09:22

Method: 537 IDA - EPA 537 Isotope Dilution - RA (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HFPODA	0.86	U	2.6	0.86	ng/L		06/27/22 09:03	07/06/22 12:07	1
9Cl-PF3ONS	0.43	U	1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
11Cl-PF3OUdS	0.43	U	1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
DONA	0.43	U	1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
Perfluoroundecanoic acid	1.0	J	1.7	0.43	ng/L		06/27/22 09:03	07/06/22 12:07	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFHxA	71		24 - 179				06/27/22 09:03	07/06/22 12:07	1
13C4 PFHpA	82		31 - 182				06/27/22 09:03	07/06/22 12:07	1
13C8 PFOA	96		48 - 162				06/27/22 09:03	07/06/22 12:07	1
13C9 PFNA	66		51 - 167				06/27/22 09:03	07/06/22 12:07	1
13C6 PFDA	86		49 - 163				06/27/22 09:03	07/06/22 12:07	1
13C2-PFDoDA	73		17 - 176				06/27/22 09:03	07/06/22 12:07	1
13C2 PFTeDA	62		10 - 179				06/27/22 09:03	07/06/22 12:07	1
13C3 PFBS	176		16 - 200				06/27/22 09:03	07/06/22 12:07	1
13C3 PFHxS	113		28 - 188				06/27/22 09:03	07/06/22 12:07	1
13C8 PFOS	82		51 - 159				06/27/22 09:03	07/06/22 12:07	1
d3-NMeFOSAA	64		31 - 174				06/27/22 09:03	07/06/22 12:07	1
d5-NEtFOSAA	70		29 - 195				06/27/22 09:03	07/06/22 12:07	1
13C3 HFPO-DA	67		17 - 185				06/27/22 09:03	07/06/22 12:07	1
13C7 PFUnA	78		34 - 174				06/27/22 09:03	07/06/22 12:07	1

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Method: 537 IDA - EPA 537 Isotope Dilution

Prep: 537 IDA

Analyte	RL	MDL	Units
¹¹ Cl-PF3OUdS	2.0	0.50	ng/L
⁹ Cl-PF3ONS	2.0	0.50	ng/L
DONA	2.0	0.50	ng/L
HFPODA	3.0	1.0	ng/L
NEtFOSAA	3.0	0.50	ng/L
NMeFOSAA	2.0	0.60	ng/L
Perfluorobutanesulfonic acid	2.0	0.50	ng/L
Perfluorodecanoic acid	2.0	0.50	ng/L
Perfluorododecanoic acid	2.0	0.50	ng/L
Perfluoroheptanoic acid	2.0	0.50	ng/L
Perfluorohexanesulfonic acid	2.0	0.50	ng/L
Perfluorohexanoic acid	2.0	0.50	ng/L
Perfluorononanoic acid	2.0	0.50	ng/L
Perfluorooctanesulfonic acid	2.0	0.50	ng/L
Perfluorooctanoic acid	2.0	0.50	ng/L
Perfluorotetradecanoic acid	2.0	0.50	ng/L
Perfluorotridecanoic acid	2.0	0.50	ng/L
Perfluoroundecanoic acid	2.0	0.50	ng/L

Isotope Dilution Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C5PHA (24-179)	C4PFHA (31-182)	C8PFOA (48-162)	C9PFNA (51-167)	C6PFDA (49-163)	PFDoDA (17-176)	PFTDA (10-179)	C3PFBS (16-200)
240-168405-1	MSA-WC-MTW-061522	70	79	91	67	78	74	59	174
240-168405-1 - RA	MSA-WC-MTW-061522	71	82	96	66	86	73	62	176
LCS 410-269643/2-A	Lab Control Sample	96	100	96	92	97	94	95	92
MB 410-269643/1-A	Method Blank	91	96	89	92	86	80	76	91

		Percent Isotope Dilution Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	C3PFHS (28-188)	C8PFOS (51-159)	d3NMFOS (31-174)	d5NEFOS (29-195)	HFPODA (17-185)	13C7PUA (34-174)
240-168405-1	MSA-WC-MTW-061522	116	86	58	65	64	79
240-168405-1 - RA	MSA-WC-MTW-061522	113	82	64	70	67	78
LCS 410-269643/2-A	Lab Control Sample	96	90	91	84	93	98
MB 410-269643/1-A	Method Blank	88	96	81	78	81	86

Surrogate Legend

- 13C5PHA = 13C5 PFHxA
- C4PFHA = 13C4 PFHpA
- C8PFOA = 13C8 PFOA
- C9PFNA = 13C9 PFNA
- C6PFDA = 13C6 PFDA
- PFDoDA = 13C2-PFDoDA
- PFTDA = 13C2 PFTeDA
- C3PFBS = 13C3 PFBS
- C3PFHS = 13C3 PFHxS
- C8PFOS = 13C8 PFOS
- d3NMFOS = d3-NMeFOSAA
- d5NEFOS = d5-NEtFOSAA
- HFPODA = 13C3 HFPO-DA
- 13C7PUA = 13C7 PFUnA

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-269643/1-A
Matrix: Water
Analysis Batch: 271895

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 269643

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorohexanoic acid	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
Perfluoroheptanoic acid	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
Perfluorooctanoic acid	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
Perfluorononanoic acid	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
Perfluorodecanoic acid	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
Perfluorotridecanoic acid	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
Perfluorotetradecanoic acid	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
Perfluorobutanesulfonic acid	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
Perfluorohexanesulfonic acid	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
Perfluorooctanesulfonic acid	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
NEtFOSAA	0.50	U	3.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
NMeFOSAA	0.60	U	2.0	0.60	ng/L		06/27/22 09:03	07/02/22 16:00	1
Perfluorododecanoic acid	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
HFPODA	1.0	U	3.0	1.0	ng/L		06/27/22 09:03	07/02/22 16:00	1
9Cl-PF3ONS	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
11Cl-PF3OUdS	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
DONA	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1
Perfluoroundecanoic acid	0.50	U	2.0	0.50	ng/L		06/27/22 09:03	07/02/22 16:00	1

Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C5 PFHxA	91		24 - 179	06/27/22 09:03	07/02/22 16:00	1
13C4 PFHpA	96		31 - 182	06/27/22 09:03	07/02/22 16:00	1
13C8 PFOA	89		48 - 162	06/27/22 09:03	07/02/22 16:00	1
13C9 PFNA	92		51 - 167	06/27/22 09:03	07/02/22 16:00	1
13C6 PFDA	86		49 - 163	06/27/22 09:03	07/02/22 16:00	1
13C2-PFDoDA	80		17 - 176	06/27/22 09:03	07/02/22 16:00	1
13C2 PFTeDA	76		10 - 179	06/27/22 09:03	07/02/22 16:00	1
13C3 PFBS	91		16 - 200	06/27/22 09:03	07/02/22 16:00	1
13C3 PFHxS	88		28 - 188	06/27/22 09:03	07/02/22 16:00	1
13C8 PFOS	96		51 - 159	06/27/22 09:03	07/02/22 16:00	1
d3-NMeFOSAA	81		31 - 174	06/27/22 09:03	07/02/22 16:00	1
d5-NEtFOSAA	78		29 - 195	06/27/22 09:03	07/02/22 16:00	1
13C3 HFPO-DA	81		17 - 185	06/27/22 09:03	07/02/22 16:00	1
13C7 PFUnA	86		34 - 174	06/27/22 09:03	07/02/22 16:00	1

Lab Sample ID: LCS 410-269643/2-A
Matrix: Water
Analysis Batch: 271895

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 269643

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid	25.6	22.3		ng/L		87	59 - 145
Perfluorooctanoic acid	25.6	24.2		ng/L		95	51 - 145
Perfluorononanoic acid	25.6	25.3		ng/L		99	61 - 139
Perfluorodecanoic acid	25.6	24.5		ng/L		96	56 - 138
Perfluorotridecanoic acid	25.6	21.0		ng/L		82	58 - 146
Perfluorotetradecanoic acid	25.6	22.8		ng/L		89	62 - 139
Perfluorobutanesulfonic acid	22.7	21.7		ng/L		96	53 - 138
Perfluorohexanesulfonic acid	23.3	18.8		ng/L		80	58 - 134

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-269643/2-A
Matrix: Water
Analysis Batch: 271895

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 269643

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid	23.7	23.4		ng/L		99	45 - 150
NEtFOSAA	25.6	23.5		ng/L		92	55 - 134
NMeFOSAA	25.6	24.9		ng/L		97	59 - 140
Perfluorododecanoic acid	25.6	23.6		ng/L		92	59 - 143
HFPODA	25.6	21.2		ng/L		83	50 - 135
9Cl-PF3ONS	23.8	22.4		ng/L		94	59 - 135
11Cl-PF3OUdS	23.8	22.5		ng/L		95	53 - 139
DONA	24.2	22.3		ng/L		92	55 - 143
Perfluoroundecanoic acid	25.6	23.4		ng/L		91	60 - 141

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C5 PFHxA	96		24 - 179
13C4 PFHpA	100		31 - 182
13C8 PFOA	96		48 - 162
13C9 PFNA	92		51 - 167
13C6 PFDA	97		49 - 163
13C2-PFDoDA	94		17 - 176
13C2 PFTeDA	95		10 - 179
13C3 PFBS	92		16 - 200
13C3 PFHxS	96		28 - 188
13C8 PFOS	90		51 - 159
d3-NMeFOSAA	91		31 - 174
d5-NEtFOSAA	84		29 - 195
13C3 HFPO-DA	93		17 - 185
13C7 PFUnA	98		34 - 174

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

LCMS

Prep Batch: 269643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-168405-1	MSA-WC-MTW-061522	Total/NA	Water	537 IDA	
240-168405-1 - RA	MSA-WC-MTW-061522	Total/NA	Water	537 IDA	
MB 410-269643/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-269643/2-A	Lab Control Sample	Total/NA	Water	537 IDA	

Analysis Batch: 271895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-168405-1	MSA-WC-MTW-061522	Total/NA	Water	537 IDA	269643
MB 410-269643/1-A	Method Blank	Total/NA	Water	537 IDA	269643
LCS 410-269643/2-A	Lab Control Sample	Total/NA	Water	537 IDA	269643

Analysis Batch: 272691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-168405-1 - RA	MSA-WC-MTW-061522	Total/NA	Water	537 IDA	269643

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Client Sample ID: MSA-WC-MTW-061522

Lab Sample ID: 240-168405-1

Date Collected: 06/15/22 11:00

Matrix: Water

Date Received: 06/17/22 09:22

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	537 IDA			269643	06/27/22 09:03	PMS9	ELLE
Total/NA	Analysis	537 IDA		1	271895	07/02/22 16:24	QD9Y	ELLE
Total/NA	Prep	537 IDA	RA		269643	06/27/22 09:03	PMS9	ELLE
Total/NA	Analysis	537 IDA	RA	1	272691	07/06/22 12:07	PY4D	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	07-01-23
Alaska (UST)	State	17-027	02-28-23
Arizona	State	AZ0780	03-12-23
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	11-30-22
Colorado	State	PA00009	06-30-23
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-22 *
Georgia (DW)	State	C048	01-31-23
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22 *
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	01-01-23
Louisiana	NELAP	02055	06-30-22 *
Maine	State	2019012	03-12-23
Maryland	State	100	06-30-23
Massachusetts	State	M-PA009	06-30-23
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	06-30-23
New York	NELAP	10670	04-01-23
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-22
North Dakota	State	R-205	01-31-23
Oklahoma	NELAP	R-205	08-31-22
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-23
Texas	NELAP	T104704194-21-40	08-31-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-15-23
Washington	State	C457	04-11-23
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	07-31-22
Wyoming	State	8TMS-L	01-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA Annual GW

Job ID: 240-168405-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-168405-1	MSA-WC-MTW-061522	Water	06/15/22 11:00	06/17/22 09:22

PFAS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Analysis Batch Number: 271695

Lab Sample ID: IC 410-271695/1 Client Sample ID: _____

Date Analyzed: 07/01/22 13:08 Lab File ID: 22JUL01XMCAL-01.d GC Column: Gemini C18 50 ID: 3 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.41	Missed Peak	fellenbau ma	07/01/22 15:44
PPF Acid	1.75	Baseline	fellenbau ma	07/01/22 15:44
PFMOAA	2.72	Baseline	fellenbau ma	07/01/22 15:44
R-PSDA	3.85	Baseline	fellenbau ma	07/01/22 15:45
Hydrolyzed PSDA	3.87	Baseline	fellenbau ma	07/01/22 15:45
PFO2HxA	4.26	Baseline	fellenbau ma	07/01/22 15:45
Perfluoropentanoic acid	4.37	Baseline	fellenbau ma	07/01/22 15:45
PEPA	4.47	Baseline	fellenbau ma	07/01/22 15:46
Perfluorohexanoic acid	4.78	Baseline	fellenbau ma	07/01/22 15:46
HFPODA	4.91	Baseline	fellenbau ma	07/01/22 15:47
Hydro-PS Acid	5.20	Baseline	fellenbau ma	07/01/22 15:47
6:2 Fluorotelomer sulfonic acid	5.52	Baseline	fellenbau ma	07/01/22 15:48
Perfluorooctanoic acid	5.54	Baseline	JVK6	07/01/22 13:41
Perfluorooctanesulfonic acid	5.86	Isomers	fellenbau ma	07/01/22 15:49
8:2 Fluorotelomer sulfonic acid	6.18	Baseline	JVK6	07/01/22 13:42
NMeFOSAA	6.34	Isomers	JVK6	07/01/22 13:42
NEtFOSAA	6.46	Isomers	fellenbau ma	07/01/22 15:49
NMeFOSE	6.73	Baseline	fellenbau ma	07/01/22 15:50

PFAS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Analysis Batch Number: 271695

Lab Sample ID: IC 410-271695/1 Client Sample ID: _____

Date Analyzed: 07/01/22 13:08 Lab File ID: 22JUL01XMCAL-01.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
NMeFOSA	6.74	Baseline	fellenbau ma	07/01/22 15:50
NEtFOSE	6.89	Baseline	fellenbau ma	07/01/22 15:50
NEtFOSA	6.90	Baseline	fellenbau ma	07/01/22 15:51

PFAS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Analysis Batch Number: 271695

Lab Sample ID: IC 410-271695/2 Client Sample ID: _____

Date Analyzed: 07/01/22 13:19 Lab File ID: 22JUL01XMCAL-02.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.41	Missed Peak	fellenbau ma	07/01/22 15:53
PPF Acid	1.75	Baseline	JVK6	07/01/22 13:45
PFMOAA	2.75	Baseline	JVK6	07/01/22 13:45
R-PSDA	3.85	Baseline	JVK6	07/01/22 13:45
PEPA	4.48	Baseline	fellenbau ma	07/01/22 15:54
HFPODA	4.91	Baseline	fellenbau ma	07/01/22 15:54
Hydro-PS Acid	5.13	Baseline	fellenbau ma	07/01/22 15:54
Perfluoroheptanoic acid	5.18	Baseline	fellenbau ma	07/01/22 15:54
5:3 FTCA	5.26	Baseline	JVK6	07/01/22 13:46
6:2 FTCA	5.30	Baseline	fellenbau ma	07/01/22 15:55
Perfluorooctanoic acid	5.54	Baseline	JVK6	07/01/22 13:46
Perfluorooctanesulfonic acid	5.87	Isomers	JVK6	07/01/22 13:46
NMeFOSAA	6.34	Isomers	JVK6	07/01/22 13:46
NEtFOSAA	6.47	Baseline	fellenbau ma	07/01/22 15:56
Perfluorododecanoic acid	6.70	Baseline	fellenbau ma	07/01/22 15:56
NMeFOSE	6.73	Split Peak	fellenbau ma	07/01/22 15:56

PFAS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Analysis Batch Number: 271695

Lab Sample ID: IC 410-271695/3 Client Sample ID: _____

Date Analyzed: 07/01/22 13:31 Lab File ID: 22JUL01XMCAL-03.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.42	Baseline	JVK6	07/01/22 13:48
PFMOAA	2.74	Baseline	fellenbau ma	07/01/22 15:58
Hydro-PS Acid	5.13	Split Peak	fellenbau ma	07/01/22 15:58
NMeFOSAA	6.34	Isomers	JVK6	07/01/22 13:48
NEtFOSAA	6.48	Split Peak	fellenbau ma	07/01/22 15:58

Lab Sample ID: IC 410-271695/4 Client Sample ID: _____

Date Analyzed: 07/01/22 13:42 Lab File ID: 22JUL01XMCAL-04.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.42	Baseline	fellenbau ma	07/01/22 16:00
Hydro-PS Acid	5.19	Baseline	fellenbau ma	07/01/22 16:00

Lab Sample ID: ICISAV 410-271695/5 Client Sample ID: _____

Date Analyzed: 07/01/22 13:53 Lab File ID: 22JUL01XMCAL-05.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Hydro-PS Acid	5.20	Baseline	fellenbau ma	07/01/22 15:41
Perfluorooctanoic acid	5.54	Wrong peak	fellenbau ma	07/01/22 15:42

PFAS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Analysis Batch Number: 271695

Lab Sample ID: IC 410-271695/6 Client Sample ID: _____

Date Analyzed: 07/01/22 14:04 Lab File ID: 22JUL01XMCAL-06.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Hydro-PS Acid	5.20	Split Peak	fellenbau ma	07/01/22 16:16

Lab Sample ID: IC 410-271695/7 Client Sample ID: _____

Date Analyzed: 07/01/22 14:15 Lab File ID: 22JUL01XMCAL-07.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Hydro-PS Acid	5.19	Split Peak	fellenbau ma	07/01/22 16:17

Lab Sample ID: ICB 410-271695/8 Client Sample ID: _____

Date Analyzed: 07/01/22 14:26 Lab File ID: 22JUL01XMCAL-08.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorohexanoic acid		Missed Peak	fellenbau ma	07/01/22 16:58
Perfluorooctanesulfonic acid		Missed Peak	fellenbau ma	07/01/22 16:58
Perfluorotetradecanoic acid		Baseline	fellenbau ma	07/01/22 16:57

PFAS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Analysis Batch Number: 271695

Lab Sample ID: ICV 410-271695/9 Client Sample ID: _____

Date Analyzed: 07/01/22 14:37 Lab File ID: 22JUL01XMCAL-09.d GC Column: Gemini C18 50 ID: 3 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.43	Baseline	fellenbau ma	07/01/22 17:03
PEPA	4.47	Baseline	fellenbau ma	07/01/22 17:03
Hydro-PS Acid	5.19	Baseline	fellenbau ma	07/01/22 17:04
NMeFOSAA	6.32	Baseline	fellenbau ma	07/01/22 17:04

Lab Sample ID: WDM 410-271695/10 Client Sample ID: _____

Date Analyzed: 07/01/22 14:48 Lab File ID: 22JUL01XMCAL-10.d GC Column: Gemini C18 50 ID: 3 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctanoic acid	5.54	Split Peak	fellenbau ma	07/01/22 17:07

PFAS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Analysis Batch Number: 271895

Lab Sample ID: CCV 410-271895/1 Client Sample ID: _____

Date Analyzed: 07/02/22 15:49 Lab File ID: 22JUL02-01.d GC Column: Gemini C18 50 ID: 3 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.42	Baseline	JVK6	07/04/22 07:30
Perfluorooctanoic acid	5.54	Baseline	JVK6	07/04/22 07:30
NMeFOSAA	6.31	Isomers	JVK6	07/04/22 07:30
10:2 FTS	6.69	Baseline	JVK6	07/04/22 07:31

Lab Sample ID: LCS 410-269643/2-A Client Sample ID: _____

Date Analyzed: 07/02/22 16:13 Lab File ID: 22JUL02-03.d GC Column: Gemini C18 50 ID: 3 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
NMeFOSAA	6.33	Isomers	JVK6	07/06/22 07:17

Lab Sample ID: 240-168405-1 Client Sample ID: _____

Date Analyzed: 07/02/22 16:24 Lab File ID: 22JUL02-04.d GC Column: Gemini C18 50 ID: 3 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C3-PFBA	3.84	Baseline	JVK6	07/06/22 07:18
13C3 PFBS	4.44	Baseline	JVK6	07/06/22 07:18
Perfluorobutanesulfonic acid	4.44	Baseline	JVK6	07/06/22 07:18
Perfluorohexanoic acid	4.78	Baseline	JVK6	07/06/22 07:19
Perfluoroheptanoic acid	5.18	Baseline	JVK6	07/06/22 07:19
Perfluorohexanesulfonic acid	5.18	Isomers	JVK6	07/06/22 07:19
Perfluorooctanoic acid	5.54	Isomers	JVK6	07/06/22 07:19
13C4 PFOS	5.86	Baseline	JVK6	07/06/22 07:18
Perfluorononanoic acid	5.87	Baseline	JVK6	07/06/22 07:20
Perfluorooctanesulfonic acid	5.87	Isomers	JVK6	07/06/22 07:19

PFAS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Analysis Batch Number: 271895

Lab Sample ID: CCV 410-271895/14 Client Sample ID: _____

Date Analyzed: 07/02/22 18:15 Lab File ID: 22JUL02-14.d GC Column: Gemini C18 50 ID: 3 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
NMeFOSAA	6.33	Isomers	JVK6	07/04/22 07:32

PFAS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Analysis Batch Number: 272051

Lab Sample ID: IC 410-272051/1 Client Sample ID: _____

Date Analyzed: 07/04/22 16:15 Lab File ID: 22JUL04XMCAL-01.d GC Column: Gemini C18 50 ID: 3 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.42	Baseline	JVK6	07/05/22 06:56
PPF Acid	1.73	Baseline	JVK6	07/05/22 06:56
PFMOAA	2.72	Baseline	JVK6	07/05/22 06:56
HFPODA	4.92	Baseline	JVK6	07/05/22 06:57
Perfluorooctanoic acid	5.53	Baseline	JVK6	07/05/22 06:57
Perfluorooctanesulfonic acid	5.86	Isomers	JVK6	07/05/22 06:57
8:2 Fluorotelomer sulfonic acid	6.18	Baseline	JVK6	07/05/22 06:58
NMeFOSAA	6.32	Isomers	JVK6	07/05/22 06:58
NEtFOSAA	6.48	Isomers	JVK6	07/05/22 06:58
10:2 FTS	6.71	Baseline	JVK6	07/05/22 06:58
NEtFOSE	6.89	Baseline	JVK6	07/05/22 06:59

Lab Sample ID: IC 410-272051/2 Client Sample ID: _____

Date Analyzed: 07/04/22 16:26 Lab File ID: 22JUL04XMCAL-02.d GC Column: Gemini C18 50 ID: 3 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.42	Baseline	JVK6	07/05/22 07:00
PPF Acid	1.74	Baseline	JVK6	07/05/22 07:00
PFMOAA	2.73	Baseline	JVK6	07/05/22 07:01
PEPA	4.47	Baseline	JVK6	07/05/22 07:01
Perfluorooctanoic acid	5.53	Baseline	JVK6	07/05/22 07:01
8:2 FTCA	5.99	Baseline	JVK6	07/05/22 07:02
8:2 Fluorotelomer sulfonic acid	6.17	Baseline	JVK6	07/05/22 07:02
NMeFOSAA	6.33	Isomers	JVK6	07/05/22 07:02
Perfluorododecanoic acid	6.68	Baseline	JVK6	07/05/22 07:02

PFAS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Analysis Batch Number: 272051

Lab Sample ID: IC 410-272051/3 Client Sample ID: _____

Date Analyzed: 07/04/22 16:38 Lab File ID: 22JUL04XMCAL-03.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.42	Baseline	JVK6	07/05/22 07:03
NMeFOSAA	6.32	Isomers	JVK6	07/05/22 07:04
NEtFOSAA	6.46	Isomers	JVK6	07/05/22 07:04

Lab Sample ID: IC 410-272051/4 Client Sample ID: _____

Date Analyzed: 07/04/22 16:49 Lab File ID: 22JUL04XMCAL-04.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.42	Baseline	JVK6	07/05/22 07:05
NMeFOSAA	6.33	Isomers	JVK6	07/05/22 07:06

Lab Sample ID: ICB 410-272051/8 Client Sample ID: _____

Date Analyzed: 07/04/22 17:33 Lab File ID: 22JUL04XMCAL-08.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorotetradecanoic acid	7.08	Baseline	JVK6	07/05/22 07:09

Lab Sample ID: ICV 410-272051/9 Client Sample ID: _____

Date Analyzed: 07/04/22 17:44 Lab File ID: 22JUL04XMCAL-09.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.42	Baseline	JVK6	07/05/22 07:10
Perfluorooctanoic acid	5.53	Baseline	JVK6	07/05/22 07:11
NMeFOSAA	6.33	Isomers	JVK6	07/05/22 07:11

PFAS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Analysis Batch Number: 272051

Lab Sample ID: WDM 410-272051/10 Client Sample ID: _____

Date Analyzed: 07/04/22 17:55 Lab File ID: 22JUL04XMCAL-10.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctanoic acid	5.54	Isomers	JVK6	07/05/22 07:12

PFAS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Analysis Batch Number: 272691

Lab Sample ID: CCV 410-272691/4 Client Sample ID: _____

Date Analyzed: 07/06/22 11:56 Lab File ID: 22JUL06-04.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.41	Baseline	JVK6	07/06/22 12:14
NMeFOSAA	6.34	Isomers	JVK6	07/06/22 12:14

Lab Sample ID: 240-168405-1 Client Sample ID: _____

Date Analyzed: 07/06/22 12:07 Lab File ID: 22JUL06-05.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C3-PFBA	3.83	Baseline	PY4D	07/06/22 17:06
Perfluorobutanesulfonic acid	4.43	Baseline	PY4D	07/06/22 17:06
Perfluorohexanoic acid	4.78	Baseline	PY4D	07/06/22 17:06
Perfluoroheptanoic acid	5.17	Baseline	PY4D	07/06/22 17:06
Perfluorohexanesulfonic acid	5.18	Baseline	PY4D	07/06/22 17:06
Perfluorooctanoic acid	5.53	Baseline	PY4D	07/06/22 17:06
Perfluorooctanesulfonic acid	5.85	Baseline	PY4D	07/06/22 17:06
HFPODA		Invalid Compound ID	PY4D	07/06/22 17:06

Lab Sample ID: CCV 410-272691/11 Client Sample ID: _____

Date Analyzed: 07/06/22 13:15 Lab File ID: 22JUL06-11.d GC Column: Gemini C18 50 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MTP	1.41	Baseline	fellenbau ma	07/06/22 15:04
Hydro-PS Acid	5.13	Baseline	fellenbau ma	07/06/22 15:05

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
PFC_ICV_MOD_00044	09/10/22	06/10/22	Methanol, Lot ED663-US	10 mL	PFC_ST_01249	0.025 mL	13C2 PFDA	5 ng/mL
							13C2 PFOA	5 ng/mL
							13C3-PFBA	5 ng/mL
							13C4 PFOS	4.7825 ng/mL
.PFC_ST_01249	04/26/26	Wellington Laboratories, Lot MPFACCIS0516	(Purchased Reagent)		13C2 PFDA	2000 ng/mL	2000 ng/mL	
							13C2 PFOA	2000 ng/mL
							13C3-PFBA	2000 ng/mL
							13C4 PFOS	1913 ng/mL
PFC_ICV_MOD_00044	09/10/22	06/10/22	Methanol, Lot ED663-US	10 mL	PFC_IN_00701	0.05 mL	d5-NetPFOSA	10 ng/mL
							13C3 HFPO-DA	10 ng/mL
							M2-8:2 FTS	9.58 ng/mL
							M2-6:2 FTS	9.5 ng/mL
							d3-NMePFOSA	10 ng/mL
							13C-6:2 FTCA	10 ng/mL
							13C-10:2 FTCA	10 ng/mL
							13C-8:2 FTCA	10 ng/mL
							d3-NMeFOSAA	10 ng/mL
							d5-NetFOSAA	10 ng/mL
							d7-N-MeFOSE-M	10 ng/mL
							d9-N-EtFOSE-M	10 ng/mL
							13C8 FOSA	10 ng/mL
							M2-4:2 FTS	9.34 ng/mL
							13C-6:2 FTUCA	10 ng/mL
					13C-8:2 FTUCA	10 ng/mL		
					13C-10:2 FTUCA	10 ng/mL		
					PFC_IN_00705	1 mL	11Cl-PF3OUds	1.86 ng/mL
							9Cl-PF3ONS	1.86 ng/mL
							DONA	1.89 ng/mL
							HFPODA	2 ng/mL
							NEtFOSAA	2 ng/mL
							NMeFOSAA	2 ng/mL
							Perfluorobutanesulfonic acid	1.77 ng/mL
							Perfluorodecanoic acid	2 ng/mL
							Perfluorododecanoic acid	2 ng/mL
							Perfluoroheptanoic acid	2 ng/mL
Perfluorohexanesulfonic acid	1.824 ng/mL							
Perfluorohexanoic acid	2 ng/mL							
Perfluorononanoic acid	2 ng/mL							
Perfluorooctanesulfonic acid	1.851 ng/mL							
Perfluorooctanoic acid	2 ng/mL							
Perfluorotetradecanoic acid	2 ng/mL							
Perfluorotridecanoic acid	2 ng/mL							
Perfluoroundecanoic acid	2 ng/mL							
PFC_ST_01219	0.05 mL	13C2 PFTeDA	10 ng/mL					
		13C2-PFDoDA	10 ng/mL					
		13C3 PFBS	9.3 ng/mL					
			13C3 PFHxS	9.46 ng/mL				

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C4 PFBA	10 ng/mL
							13C4 PFHpA	10 ng/mL
							13C5 PFHxA	10 ng/mL
							13C5 PFPeA	10 ng/mL
							13C6 PFDA	10 ng/mL
							13C7 PFUnA	10 ng/mL
							13C8 PFOA	10 ng/mL
							13C8 PFOS	9.56 ng/mL
							13C9 PFNA	10 ng/mL
.PFC_IN_00701	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00981	0.2 mL	d5-NetPFOSA	2000 ppb
					PFC_ST_00984	0.2 mL	13C3 HFPO-DA	2000 ppb
					PFC_ST_00985	0.2 mL	M2-8:2 FTS	1916 ppb
					PFC_ST_00986	0.2 mL	M2-6:2 FTS	1900 ppb
					PFC_ST_01081	0.2 mL	d3-NMePFOSA	2000 ppb
					PFC_ST_01108	0.2 mL	13C-6:2 FTCA	2000 ppb
					PFC_ST_01109	0.2 mL	13C-10:2 FTCA	2000 ppb
					PFC_ST_01113	0.2 mL	13C-8:2 FTCA	2000 ppb
					PFC_ST_01215	0.2 mL	d3-NMeFOSAA	2000 ppb
					PFC_ST_01216	0.2 mL	d5-NetFOSAA	2000 ppb
					PFC_ST_01293	0.2 mL	d7-N-MeFOSE-M	2000 ppb
					PFC_ST_01295	0.2 mL	d9-N-EtFOSE-M	2000 ppb
					PFC_ST_01411	0.2 mL	13C8 FOSA	2000 ppb
					PFC_ST_01412	0.2 mL	M2-4:2 FTS	1868 ppb
					PFC_ST_01467	0.2 mL	13C-6:2 FTUCA	2000 ppb
					PFC_ST_01468	0.2 mL	13C-8:2 FTUCA	2000 ppb
					PFC_ST_01469	0.2 mL	13C-10:2 FTUCA	2000 ppb
..PFC_ST_00981	11/23/25	Wellington Laboratories, Lot dNetFOSA1120M			(Purchased Reagent)		d5-NetPFOSA	50000 ng/mL
..PFC_ST_00984	05/13/24	Wellington Laboratories, Lot M3HFPODA0521			(Purchased Reagent)		13C3 HFPO-DA	50000 ng/mL
..PFC_ST_00985	12/17/25	Wellington Laboratories, Lot M282FTS1220			(Purchased Reagent)		M2-8:2 FTS	47900 ng/mL
..PFC_ST_00986	05/14/26	Wellington Laboratories, Lot M262FTS0521			(Purchased Reagent)		M2-6:2 FTS	47500 ng/mL
..PFC_ST_01081	04/04/23	Wellington Laboratories, Lot dNMeFOSA0421M			(Purchased Reagent)		d3-NMePFOSA	50000 ng/mL
..PFC_ST_01108	04/04/23	Wellington Laboratories, Lot MFHEA0421			(Purchased Reagent)		13C-6:2 FTCA	50000 ppb
..PFC_ST_01109	04/04/23	Wellington Laboratories, Lot MFDEA0817			(Purchased Reagent)		13C-10:2 FTCA	50000 ppb
..PFC_ST_01113	04/04/23	Wellington Laboratories, Lot MFOEA1020			(Purchased Reagent)		13C-8:2 FTCA	50000 ppb
..PFC_ST_01215	04/04/23	Wellington Laboratories, Lot d3NMeFOSAA0521			(Purchased Reagent)		d3-NMeFOSAA	50000 ng/mL
..PFC_ST_01216	04/04/23	Wellington Laboratories, Lot d5NetFOSAA0921			(Purchased Reagent)		d5-NetFOSAA	50000 ng/mL
..PFC_ST_01293	02/10/23	Wellington Laboratories, Lot d7NMeFOSE1220M			(Purchased Reagent)		d7-N-MeFOSE-M	50000 ng/mL
..PFC_ST_01295	02/10/23	Wellington Laboratories, Lot d9NetFOSE1220M			(Purchased Reagent)		d9-N-EtFOSE-M	50000 ng/mL
..PFC_ST_01411	10/12/26	Wellington Laboratories, Lot M8FOSA0921I			(Purchased Reagent)		13C8 FOSA	50000 ng/mL
..PFC_ST_01412	10/13/26	Wellington Laboratories, Lot M242FTS01021			(Purchased Reagent)		M2-4:2 FTS	46700 ng/mL
..PFC_ST_01467	03/22/23	Wellington Laboratories, Lot MFHUEA0322			(Purchased Reagent)		13C-6:2 FTUCA	50000 ppb
..PFC_ST_01468	03/22/23	Wellington Laboratories, Lot MFOUEA1121			(Purchased Reagent)		13C-8:2 FTUCA	50000 ppb
..PFC_ST_01469	03/22/23	Wellington Laboratories, Lot MFDUEA1221			(Purchased Reagent)		13C-10:2 FTUCA	50000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.PFC_IN_00705	12/09/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00704	0.2 mL	11Cl-PF30Uds	18.6 ng/mL
							9Cl-PF30NS	18.6 ng/mL
							DONA	18.9 ng/mL
							HFPODA	20 ng/mL
							NEtFOSAA	20 ng/mL
							NMeFOSAA	20 ng/mL
							Perfluorobutanesulfonic acid	17.7 ng/mL
							Perfluorodecanoic acid	20 ng/mL
							Perfluorododecanoic acid	20 ng/mL
							Perfluoroheptanoic acid	20 ng/mL
							Perfluorohexanesulfonic acid	18.24 ng/mL
							Perfluorohexanoic acid	20 ng/mL
							Perfluorononanoic acid	20 ng/mL
							Perfluorooctanesulfonic acid	18.51 ng/mL
							Perfluorooctanoic acid	20 ng/mL
Perfluorotetradecanoic acid	20 ng/mL							
Perfluorotridecanoic acid	20 ng/mL							
Perfluoroundecanoic acid	20 ng/mL							
..PFC_IN_00704	12/09/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_ST_01549	1.25 mL	11Cl-PF30Uds	465 ng/mL
							9Cl-PF30NS	465 ng/mL
							DONA	472.5 ng/mL
							HFPODA	500 ng/mL
							NEtFOSAA	500 ng/mL
							NMeFOSAA	500 ng/mL
							Perfluorobutanesulfonic acid	442.5 ng/mL
							Perfluorodecanoic acid	500 ng/mL
							Perfluorododecanoic acid	500 ng/mL
							Perfluoroheptanoic acid	500 ng/mL
							Perfluorohexanesulfonic acid	456 ng/mL
							Perfluorohexanoic acid	500 ng/mL
							Perfluorononanoic acid	500 ng/mL
							Perfluorooctanesulfonic acid	462.75 ng/mL
							Perfluorooctanoic acid	500 ng/mL
Perfluorotetradecanoic acid	500 ng/mL							
Perfluorotridecanoic acid	500 ng/mL							
Perfluoroundecanoic acid	500 ng/mL							
...PFC_ST_01549	06/01/24	Wellington Laboratories, Lot 537PDSR10521			(Purchased Reagent)		11Cl-PF30Uds	1860 ng/mL
							9Cl-PF30NS	1860 ng/mL
							DONA	1890 ng/mL
							HFPODA	2000 ng/mL
							NEtFOSAA	2000 ng/mL
							NMeFOSAA	2000 ng/mL
							Perfluorobutanesulfonic acid	1770 ng/mL
							Perfluorodecanoic acid	2000 ng/mL
							Perfluorododecanoic acid	2000 ng/mL
							Perfluoroheptanoic acid	2000 ng/mL
							Perfluorohexanesulfonic acid	1824 ng/mL
							Perfluorohexanoic acid	2000 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorononanoic acid	2000 ng/mL
							Perfluorooctanesulfonic acid	1851 ng/mL
							Perfluorooctanoic acid	2000 ng/mL
							Perfluorotetradecanoic acid	2000 ng/mL
							Perfluorotridecanoic acid	2000 ng/mL
							Perfluoroundecanoic acid	2000 ng/mL
.PFC_ST_01219	01/13/26	Wellington Laboratories, Lot MPFACCES0121			(Purchased Reagent)		13C2 PFTeDA	2000 ppb
							13C2-PFDoDA	2000 ppb
							13C3 PFBS	1860 ppb
							13C3 PFHxS	1892 ppb
							13C4 PFBA	2000 ppb
							13C4 PFHpA	2000 ppb
							13C5 PFHxA	2000 ppb
							13C5 PFPeA	2000 ppb
							13C6 PFDA	2000 ppb
							13C7 PFUnA	2000 ppb
							13C8 PFOA	2000 ppb
							13C8 PFOS	1912 ppb
							13C9 PFNA	2000 ppb
PFC_IS_MOD_00323	07/11/22	05/11/22	Methanol, Lot ED319-US	10 mL	PFC_ST_01559	0.5 mL	13C2 PFDA	100 ng/mL
							13C2 PFOA	100 ng/mL
							13C3-PFBA	100 ng/mL
							13C4 PFOS	95.65 ng/mL
.PFC_ST_01559	04/26/26	Wellington Laboratories, Lot MPFACCIS0516			(Purchased Reagent)		13C2 PFDA	2000 ng/mL
							13C2 PFOA	2000 ng/mL
							13C3-PFBA	2000 ng/mL
							13C4 PFOS	1913 ng/mL
PFC_LB_MOD_00030	09/10/22	06/10/22	Methanol, Lot ED663-US	10 mL	PFC_IN_00701	0.05 mL	d5-NETPFOSA	10 ng/mL
							13C3 HFPO-DA	10 ng/mL
							M2-8:2 FTS	9.58 ng/mL
							M2-6:2 FTS	9.5 ng/mL
							d3-NMePFOSA	10 ng/mL
							13C-6:2 FTCA	10 ng/mL
							13C-10:2 FTCA	10 ng/mL
							13C-8:2 FTCA	10 ng/mL
							13C4 PFOA	10 ng/mL
							d3-NMeFOSAA	10 ng/mL
							d5-NETFOSAA	10 ng/mL
							13C2 PFHxA	10 ng/mL
							13C2 PFUnA	10 ng/mL
							d7-N-MeFOSE-M	10 ng/mL
							d9-N-EtFOSE-M	10 ng/mL
							13C8 FOSA	10 ng/mL
							M2-4:2 FTS	9.34 ng/mL
							13C-6:2 FTUCA	10 ng/mL
							13C-8:2 FTUCA	10 ng/mL
							13C-10:2 FTUCA	10 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_IN_00706	0.04 mL	Perfluorooctanoic acid	2 ng/mL
					PFC_ST_01219	0.05 mL	13C2 PFTeDA	10 ng/mL
							13C2-PFDoDA	10 ng/mL
							13C3 PFBS	9.3 ng/mL
							13C3 PFHxS	9.46 ng/mL
							13C4 PFBA	10 ng/mL
							13C4 PFHpA	10 ng/mL
							13C5 PFHxA	10 ng/mL
							13C5 PFPeA	10 ng/mL
							13C6 PFDA	10 ng/mL
							13C7 PFUnA	10 ng/mL
							13C8 PFOA	10 ng/mL
							13C8 PFOS	9.56 ng/mL
		13C9 PFNA	10 ng/mL					
.PFC_IN_00701	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00981	0.2 mL	d5-NETPFOSA	2000 ppb
					PFC_ST_00984	0.2 mL	13C3 HFPO-DA	2000 ppb
					PFC_ST_00985	0.2 mL	M2-8:2 FTS	1916 ppb
					PFC_ST_00986	0.2 mL	M2-6:2 FTS	1900 ppb
					PFC_ST_01081	0.2 mL	d3-NMePFOSA	2000 ppb
					PFC_ST_01108	0.2 mL	13C-6:2 FTCA	2000 ppb
					PFC_ST_01109	0.2 mL	13C-10:2 FTCA	2000 ppb
					PFC_ST_01113	0.2 mL	13C-8:2 FTCA	2000 ppb
					PFC_ST_01214	0.2 mL	13C4 PFOA	2000 ppb
					PFC_ST_01215	0.2 mL	d3-NMeFOSAA	2000 ppb
					PFC_ST_01216	0.2 mL	d5-NETFOSAA	2000 ppb
					PFC_ST_01217	0.2 mL	13C2 PFHxA	2000 ppb
					PFC_ST_01218	0.2 mL	13C2 PFUnA	2000 ppb
					PFC_ST_01293	0.2 mL	d7-N-MeFOSE-M	2000 ppb
					PFC_ST_01295	0.2 mL	d9-N-EtFOSE-M	2000 ppb
					PFC_ST_01411	0.2 mL	13C8 FOSA	2000 ppb
					PFC_ST_01412	0.2 mL	M2-4:2 FTS	1868 ppb
					PFC_ST_01467	0.2 mL	13C-6:2 FTUCA	2000 ppb
					PFC_ST_01468	0.2 mL	13C-8:2 FTUCA	2000 ppb
					PFC_ST_01469	0.2 mL	13C-10:2 FTUCA	2000 ppb
..PFC_ST_00981	11/23/25	Wellington Laboratories, Lot dNetFOSA1120M			(Purchased Reagent)	d5-NETPFOSA	50000 ng/mL	
..PFC_ST_00984	05/13/24	Wellington Laboratories, Lot M3HFPODA0521			(Purchased Reagent)	13C3 HFPO-DA	50000 ng/mL	
..PFC_ST_00985	12/17/25	Wellington Laboratories, Lot M282FTS1220			(Purchased Reagent)	M2-8:2 FTS	47900 ng/mL	
..PFC_ST_00986	05/14/26	Wellington Laboratories, Lot M262FTS0521			(Purchased Reagent)	M2-6:2 FTS	47500 ng/mL	
..PFC_ST_01081	04/04/23	Wellington Laboratories, Lot dNMeFOSA0421M			(Purchased Reagent)	d3-NMePFOSA	50000 ng/mL	
..PFC_ST_01108	04/04/23	Wellington Laboratories, Lot MFHEA0421			(Purchased Reagent)	13C-6:2 FTCA	50000 ppb	
..PFC_ST_01109	04/04/23	Wellington Laboratories, Lot MFDEA0817			(Purchased Reagent)	13C-10:2 FTCA	50000 ppb	
..PFC_ST_01113	04/04/23	Wellington Laboratories, Lot MFOEA1020			(Purchased Reagent)	13C-8:2 FTCA	50000 ppb	
..PFC_ST_01214	05/13/26	Wellington Laboratories, Lot MPFOA0521			(Purchased Reagent)	13C4 PFOA	50000 ng/mL	
..PFC_ST_01215	04/04/23	Wellington Laboratories, Lot d3NMeFOSAA0521			(Purchased Reagent)	d3-NMeFOSAA	50000 ng/mL	

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..PFC_ST_01216	04/04/23		Wellington Laboratories, Lot d5NEtFOSAA0921			(Purchased Reagent)	d5-NEtFOSAA	50000 ng/mL
..PFC ST 01217	10/04/26		Wellington Laboratories, Lot MPFHxA0921			(Purchased Reagent)	13C2 PFHxA	50000 ng/mL
..PFC ST 01218	02/02/26		Wellington Laboratories, Lot MPFUdA0121			(Purchased Reagent)	13C2 PFUnA	50000 ng/mL
..PFC_ST_01293	02/10/23		Wellington Laboratories, Lot d7NMeFOSE1220M			(Purchased Reagent)	d7-N-MeFOSE-M	50000 ng/mL
..PFC_ST_01295	02/10/23		Wellington Laboratories, Lot d9NEtFOSE1220M			(Purchased Reagent)	d9-N-EtFOSE-M	50000 ng/mL
..PFC ST 01411	10/12/26		Wellington Laboratories, Lot M8FOSA0921I			(Purchased Reagent)	13C8 FOSA	50000 ng/mL
..PFC ST 01412	10/13/26		Wellington Laboratories, Lot M242FTS01021			(Purchased Reagent)	M2-4:2 FTS	46700 ng/mL
..PFC ST 01467	03/22/23		Wellington Laboratories, Lot MFHUEA0322			(Purchased Reagent)	13C-6:2 FTUCA	50000 ppb
..PFC ST 01468	03/22/23		Wellington Laboratories, Lot MFOUEA1121			(Purchased Reagent)	13C-8:2 FTUCA	50000 ppb
..PFC ST 01469	03/22/23		Wellington Laboratories, Lot MFDUEA1221			(Purchased Reagent)	13C-10:2 FTUCA	50000 ppb
.PFC IN 00706	12/10/22	06/10/22	MeOH, Lot ED663-US	2 mL	PFC_ST_01013	0.02 mL	Perfluorooctanoic acid	500 ng/mL
..PFC ST 01013	01/08/26		Wellington Laboratories, Lot TPF0A0121			(Purchased Reagent)	Perfluorooctanoic acid	50000 ng/mL
.PFC_ST_01219	01/13/26		Wellington Laboratories, Lot MPFACCES0121			(Purchased Reagent)	13C2 PFTeDA	2000 ppb
							13C2-PFDoDA	2000 ppb
							13C3 PFBS	1860 ppb
							13C3 PFHxS	1892 ppb
							13C4 PFBA	2000 ppb
							13C4 PFHpA	2000 ppb
							13C5 PFHxA	2000 ppb
							13C5 PFPeA	2000 ppb
							13C6 PFDA	2000 ppb
							13C7 PFUnA	2000 ppb
							13C8 PFOA	2000 ppb
							13C8 PFOS	1912 ppb
							13C9 PFNA	2000 ppb
PFC_MS_MODWX_00138	07/20/22	05/20/22	Methanol, Lot ED412-US	10 mL	PFC_IN_00683	0.8 mL	NMeFOSA	160 ng/mL
							N-ethylperfluoro-1-octanesulfo namide	160 ng/mL
							2- (N-methylperfluoro-1-octanesul fonamido) ethanol	160 ng/mL
							2- (N-ethylperfluoro-1-octanesulf onamido) ethanol	160 ng/mL
							Perfluorooctanesulfonamide	160 ng/mL
							Perfluorohexadecanoic acid	160 ng/mL
							Perfluorooctadecanoic acid	160 ng/mL
							Perfluorododecanesulfonic acid (PFDoS)	154.88 ng/mL
							Perfluoropentanesulfonic acid	150.08 ng/mL
							Perfluoroheptanesulfonic acid	152.32 ng/mL
							Perfluorononanesulfonic acid	153.6 ng/mL
							Perfluorodecanesulfonic acid	154.24 ng/mL
							Perfluorobutanoic acid	160 ng/mL
							Perfluoropentanoic acid	160 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	149.44 ng/mL
							1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	151.68 ng/mL
							1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	153.28 ng/mL
							1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	154.24 ng/mL
					PFC_IN_00685	0.8 mL	N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide	160 ng/mL
							Perfluoro(2,5,8-trimethyl-3,6,9-trioxadodecan)amide	633.6 ng/mL
							Perfluoro-2,5-dimethyl-3,6-dioxanonanoic acid (HFPO-TrA)	640 ng/mL
							3:3 FTCA	160 ng/mL
							5:3 FTCA	160 ng/mL
							7:3 FTCA	160 ng/mL
							6:2 FTCA	160 ng/mL
							8:2 FTCA	160 ng/mL
							10:2 FTCA	160 ng/mL
							6:2 FTUCA	160 ng/mL
							8:2 FTUCA	160 ng/mL
							10:2 FTUCA	160 ng/mL
							PFECA F	160 ng/mL
							PFECA A	160 ng/mL
							PFECA B	160 ng/mL
							PES	142.4 ng/mL
							PFECHS	147.52 ng/mL
							PFPrS	146.56 ng/mL
							FBSA	160 ng/mL
							FHxSA	160 ng/mL
							Sodium trifluoromethanesulfonate	156.8 ng/mL
					PFC_IN_00687	0.8 mL	PFECA G	160 ng/mL
							PPF Acid	160 ng/mL
							MTP	160 ng/mL
							PFMOAA	160 ng/mL
							R-EVE	160 ng/mL
							R-PSDA	160 ng/mL
							Hydrolyzed PSDA	160 ng/mL
							PFO2HxA	160 ng/mL
							NVHOS	160 ng/mL
							PFO3OA	160 ng/mL
							PFO4DA	160 ng/mL
							Hydro-EVE Acid	160 ng/mL
							EVE Acid	160 ng/mL
							R-PSDCA	160 ng/mL
							Hydro-PS Acid	160 ng/mL
							PS Acid	160 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_01539	0.8 mL	TAF	160 ng/mL
							PMPA	160 ng/mL
							PEPA	160 ng/mL
							11Cl-PF3OUds	148.8 ng/mL
							9Cl-PF3ONS	148.8 ng/mL
							DONA	151.2 ng/mL
							HFPODA	160 ng/mL
							NETFOSAA	160 ng/mL
							NMeFOSAA	160 ng/mL
							Perfluorobutanesulfonic acid	141.6 ng/mL
							Perfluorodecanoic acid	160 ng/mL
							Perfluorododecanoic acid	160 ng/mL
							Perfluoroheptanoic acid	160 ng/mL
							Perfluorohexanesulfonic acid	145.92 ng/mL
							Perfluorohexanoic acid	160 ng/mL
							Perfluorononanoic acid	160 ng/mL
Perfluorooctanesulfonic acid	148.08 ng/mL							
Perfluorooctanoic acid	160 ng/mL							
Perfluorotetradecanoic acid	160 ng/mL							
Perfluorotridecanoic acid	160 ng/mL							
Perfluoroundecanoic acid	160 ng/mL							
.PFC_IN_00683	11/19/22	05/19/22	Methanol, Lot ED412-US	8 mL	PFC_ST_01417	0.32 mL	NMeFOSA	2000 ng/mL
					PFC_ST_01418	0.32 mL	N-ethylperfluoro-1-octanesulfo namide	2000 ng/mL
					PFC_ST_01419	0.32 mL	2- (N-methylperfluoro-1-octanesul fonamido) ethanol	2000 ng/mL
					PFC_ST_01420	0.32 mL	2- (N-ethylperfluoro-1-octanesulf onamido) ethanol	2000 ng/mL
					PFC ST 01422	0.32 mL	Perfluorooctanesulfonamide	2000 ng/mL
					PFC ST 01423	0.32 mL	Perfluorohexadecanoic acid	2000 ng/mL
					PFC ST 01424	0.32 mL	Perfluorooctadecanoic acid	2000 ng/mL
					PFC_ST_01425	0.32 mL	Perfluorododecanesulfonic acid (PFDoS)	1936 ng/mL
					PFC ST 01426	0.32 mL	Perfluoropentanesulfonic acid	1876 ng/mL
					PFC ST 01427	0.32 mL	Perfluoroheptanesulfonic acid	1904 ng/mL
					PFC ST 01428	0.32 mL	Perfluorononanesulfonic acid	1920 ng/mL
					PFC ST 01429	0.32 mL	Perfluorodecanesulfonic acid	1928 ng/mL
					PFC ST 01430	0.32 mL	Perfluorobutanoic acid	2000 ng/mL
					PFC ST 01431	0.32 mL	Perfluoropentanoic acid	2000 ng/mL
					PFC_ST_01432	0.32 mL	1H,1H,2H,2H-perfluorohexanesul fonic acid (4:2)	1868 ng/mL
					PFC_ST_01433	0.32 mL	1H,1H,2H,2H-perfluorooctanesul fonic acid (6:2)	1896 ng/mL
PFC_ST_01434	0.32 mL	1H,1H,2H,2H-perfluorodecanesul fonic acid (8:2)	1916 ng/mL					
PFC_ST_01435	0.32 mL	1H,1H,2H,2H-perfluorododecanes ulfonic acid (10:2)	1928 ng/mL					

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..PFC_ST_01417	03/23/23		Wellington Laboratories, Lot NMeFOSA0721M		(Purchased Reagent)		NMeFOSA	50000 ng/mL
..PFC_ST_01418	03/23/23		Wellington Laboratories, Lot NETFOSA0821M		(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50000 ng/mL
..PFC_ST_01419	03/23/23		Wellington Laboratories, Lot NMeFOSE0921M		(Purchased Reagent)		2-(N-methylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
..PFC_ST_01420	03/23/23		Wellington Laboratories, Lot NETFOSE0921M		(Purchased Reagent)		2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
..PFC_ST_01422	03/23/23		Wellington Laboratories, Lot FOSA0721I		(Purchased Reagent)		Perfluorooctanesulfonamide	50000 ng/mL
..PFC_ST_01423	03/23/23		Wellington Laboratories, Lot PFHxDA0421		(Purchased Reagent)		Perfluorohexadecanoic acid	50000 ng/mL
..PFC_ST_01424	03/23/23		Wellington Laboratories, Lot PFODA0821		(Purchased Reagent)		Perfluorooctadecanoic acid	50000 ng/mL
..PFC_ST_01425	03/23/23		Wellington Laboratories, Lot LPFDoS1021		(Purchased Reagent)		Perfluorododecanesulfonic acid (PFDoS)	48400 ng/mL
..PFC_ST_01426	03/23/23		Wellington Laboratories, Lot LPFPeS0721		(Purchased Reagent)		Perfluoropentanesulfonic acid	46900 ng/mL
..PFC_ST_01427	03/23/23		Wellington Laboratories, Lot LPFHps0721		(Purchased Reagent)		Perfluoroheptanesulfonic acid	47600 ng/mL
..PFC_ST_01428	03/23/23		Wellington Laboratories, Lot LPFNS1021		(Purchased Reagent)		Perfluorononanesulfonic acid	48000 ng/mL
..PFC_ST_01429	03/23/23		Wellington Laboratories, Lot LPFDS0821		(Purchased Reagent)		Perfluorodecanesulfonic acid	48200 ng/mL
..PFC_ST_01430	03/23/23		Wellington Laboratories, Lot PFBA1021		(Purchased Reagent)		Perfluorobutanoic acid	50000 ng/mL
..PFC_ST_01431	03/23/23		Wellington Laboratories, Lot PFPeA0721		(Purchased Reagent)		Perfluoropentanoic acid	50000 ng/mL
..PFC_ST_01432	03/23/23		Wellington Laboratories, Lot 42FTS0921		(Purchased Reagent)		1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	46700 ng/mL
..PFC_ST_01433	03/23/23		Wellington Laboratories, Lot 62FTS0521		(Purchased Reagent)		1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47400 ng/mL
..PFC_ST_01434	03/23/23		Wellington Laboratories, Lot 82FTS0821		(Purchased Reagent)		1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	47900 ng/mL
..PFC_ST_01435	03/23/23		Wellington Laboratories, Lot 102FTS0221		(Purchased Reagent)		1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	48200 ng/mL
.PFC_IN_00685	08/21/22	05/19/22	Methanol, Lot ED412-US	8 mL	FBSEE_20ppm_00001	0.8 mL	N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide	2000 ppb
					HFPO_TeA_Int1_00002	0.064 mL	Perfluoro(2,5,8-trimethyl-3,6,9-trioxadodecan)amide	7920 ppb
					PFC_HFPO_TrA_00001	0.64 mL	Perfluoro-2,5-dimethyl-3,6-dioxanonanoic acid (HFPO-TrA)	8000 ppb
					PFC_ST_01361	0.32 mL	3:3 FTCA	2000 ppb
					PFC_ST_01362	0.32 mL	5:3 FTCA	2000 ppb
					PFC_ST_01363	0.32 mL	7:3 FTCA	2000 ppb
					PFC_ST_01364	0.32 mL	6:2 FTCA	2000 ppb
					PFC_ST_01365	0.32 mL	8:2 FTCA	2000 ppb
					PFC_ST_01366	0.32 mL	10:2 FTCA	2000 ppb
					PFC_ST_01367	0.32 mL	6:2 FTUCA	2000 ppb
					PFC_ST_01368	0.32 mL	8:2 FTUCA	2000 ppb
					PFC_ST_01369	0.32 mL	10:2 FTUCA	2000 ppb
					PFC_ST_01370	0.32 mL	PFECA F	2000 ppb
					PFC_ST_01371	0.32 mL	PFECA A	2000 ppb
					PFC_ST_01372	0.32 mL	PFECA B	2000 ppb
					PFC_ST_01373	0.32 mL	PES	1780 ppb
					PFC_ST_01374	0.32 mL	PFECHS	1844 ppb
PFC_ST_01375	0.32 mL	PFPPrS	1832 ppb					

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_01439	0.32 mL	FBSA	2000 ppb
					PFC_ST_01440	0.32 mL	FHxSA	2000 ppb
					PFC_TFMS_Int_00002	0.016 mL	Sodium trifluoromethanesulfonate	1960 ppb
..FBSEE_20ppm_00001	02/03/23	02/03/22	Methanol, Lot 204513	10 mL	FBSEE_00002	10 uL	N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide	20 ppm
...FBSEE_00002	02/03/25	Synquest Laboratories, Lot 629500			(Purchased Reagent)		N,N-Bis(2-hydroxyethyl)perfluorobutanesulfonamide	20000 ppm
..HFPO_TeA_Int1_00002	08/25/22	02/25/22	Methanol, Lot EC058-US	10 mL	HFPO_TeA_Int1_00001	1 mL	Perfluoro(2,5,8-trimethyl-3,6,9-trioxadodecan)amide	990000 ppb
...HFPO_TeA_Int1_00001	09/29/22	09/29/21	Methanol, Lot 204513	10 mL	PFC_HFPO_TeA_00002	0.1 mL	Perfluoro(2,5,8-trimethyl-3,6,9-trioxadodecan)amide	9900000 ppb
....PFC_HFPO_TeA_00002	09/29/22	Synquest Laboratories, Lot Q177-06			(Purchased Reagent)		Perfluoro(2,5,8-trimethyl-3,6,9-trioxadodecan)amide	99 %
..PFC_HFPO_Tra_00001	11/15/22	11/15/21	Methanol, Lot 204513	10 mL	HFPO-Tra_00001	8 uL	Perfluoro-2,5-dimethyl-3,6-dioxanonanoic acid (HFPO-Tra)	100 ppm
...HFPO-Tra_00001	11/15/23	Toronto Research Chemicals, Lot 21-JPO-57-1			(Purchased Reagent)		Perfluoro-2,5-dimethyl-3,6-dioxanonanoic acid (HFPO-Tra)	125 mg/mL
..PFC_ST_01361	11/12/25	Wellington Laboratories, Lot FPrPA1020			(Purchased Reagent)		3:3 FTCA	50000 ng/mL
..PFC_ST_01362	11/11/25	Wellington Laboratories, Lot FPePA1120			(Purchased Reagent)		5:3 FTCA	50000 ng/mL
..PFC_ST_01363	11/12/25	Wellington Laboratories, Lot FHpPA1020			(Purchased Reagent)		7:3 FTCA	50000 ng/mL
..PFC_ST_01364	03/08/24	Wellington Laboratories, Lot FHEA0321			(Purchased Reagent)		6:2 FTCA	50000 ng/mL
..PFC_ST_01365	08/18/24	Wellington Laboratories, Lot FOEA0821			(Purchased Reagent)		8:2 FTCA	50000 ng/mL
..PFC_ST_01366	07/07/23	Wellington Laboratories, Lot FDEA0921			(Purchased Reagent)		10:2 FTCA	50000 ng/mL
..PFC_ST_01367	09/03/23	Wellington Laboratories, Lot FHUEA0921			(Purchased Reagent)		6:2 FTUCA	50000 ng/mL
..PFC_ST_01368	03/29/23	Wellington Laboratories, Lot FOUEA0321			(Purchased Reagent)		8:2 FTUCA	50000 ng/mL
..PFC_ST_01369	03/29/23	Wellington Laboratories, Lot FDUEA1021			(Purchased Reagent)		10:2 FTUCA	50000 ng/mL
..PFC_ST_01370	07/21/24	Wellington Laboratories, Lot PF40PeA0921			(Purchased Reagent)		PFECA F	50000 ng/mL
..PFC_ST_01371	11/21/24	Wellington Laboratories, Lot PF50HxA0921			(Purchased Reagent)		PFECA A	50000 ng/mL
..PFC_ST_01372	08/21/23	Wellington Laboratories, Lot 36OPFHxA0921			(Purchased Reagent)		PFECA B	50000 ng/mL
..PFC_ST_01373	05/13/25	Wellington Laboratories, Lot PFESA1121			(Purchased Reagent)		PES	44500 ppb
..PFC_ST_01374	07/21/24	Wellington Laboratoires, Lot PFECHS1021			(Purchased Reagent)		PFECHS	46100 ppb
..PFC_ST_01375	07/12/26	Wellington Laboratories, Lot LPFPrS0721			(Purchased Reagent)		PFPPrS	45800 ppb
..PFC_ST_01439	03/23/23	Wellington Laboratories, Lot FBSA1121I			(Purchased Reagent)		FBSA	50000 ng/mL
..PFC_ST_01440	03/23/23	Wellington Laboratories, Lot FHxSA121I			(Purchased Reagent)		FHxSA	50000 ng/mL
..PFC_TFMS_Int_00002	08/25/22	02/25/22	Methanol, Lot 204513	10 mL	PFC_TFMS_Int_00001	1 mL	Sodium trifluoromethanesulfonate	980 ppm
...PFC_TFMS_Int_00001	09/29/22	09/29/21	Methanol, Lot 204513	10 mL	PFC_TFMS_PS_00001	0.1 g	Sodium trifluoromethanesulfonate	9800 ppm
....PFC_TFMS_PS_00001	09/29/22	Sigma-Aldrich, Lot MKCM0418			(Purchased Reagent)		Sodium trifluoromethanesulfonate	98 %
.PFC_IN_00687	08/16/22	05/20/22	Methanol, Lot ED412-US	5 mL	PFC_IN_00602	1 mL	PFECA G	2000 ppb
							PPF Acid	2000 ppb
							MTP	2000 ppb
							PFMOAA	2000 ppb
							R-EVE	2000 ppb
							R-PSDA	2000 ppb
							Hydrolyzed PSDA	2000 ppb
							PFO2HxA	2000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration	
					Reagent ID	Volume Added			
							NVHOS	2000 ppb	
							PFO3OA	2000 ppb	
							PFO4DA	2000 ppb	
							Hydro-EVE Acid	2000 ppb	
							EVE Acid	2000 ppb	
							R-PSDCA	2000 ppb	
							Hydro-PS Acid	2000 ppb	
							PS Acid	2000 ppb	
							TAF	2000 ppb	
							PMPA	2000 ppb	
							PEPA	2000 ppb	
..PFC_IN_00602	08/16/22	02/16/22	Methanol, Lot EC203-US	10 mL	PFC_ST_00199	0.1 mL	PFECA G	10000 ppb	
					PFC_ST_00329	0.1 mL	PPF Acid	10000 ppb	
					PFC_ST_00332	0.1 mL	MTP	10000 ppb	
					PFC_ST_01117	0.1 mL	PFMOAA	10000 ppb	
					PFC_ST_01118	0.1 mL	R-EVE	10000 ppb	
					PFC_ST_01119	0.1 mL	R-PSDA	10000 ppb	
					PFC_ST_01120	0.1 mL	Hydrolyzed PSDA	10000 ppb	
					PFC_ST_01121	0.1 mL	PFO2HxA	10000 ppb	
					PFC_ST_01122	0.1 mL	NVHOS	10000 ppb	
					PFC_ST_01124	0.1 mL	PFO3OA	10000 ppb	
					PFC_ST_01127	0.1 mL	PFO4DA	10000 ppb	
					PFC_ST_01128	0.1 mL	Hydro-EVE Acid	10000 ppb	
					PFC_ST_01129	0.1 mL	EVE Acid	10000 ppb	
					PFC_ST_01130	0.1 mL	R-PSDCA	10000 ppb	
					PFC_ST_01131	0.1 mL	Hydro-PS Acid	10000 ppb	
					PFC_ST_01132	0.1 mL	PS Acid	10000 ppb	
					PFC_ST_01133	0.1 mL	TAF	10000 ppb	
					PFC_ST_01134	0.1 mL	PMPA	10000 ppb	
					PFC_ST_01135	0.1 mL	PEPA	10000 ppb	
...PFC_ST_00199	02/26/23		Chemours, Lot N/A				(Purchased Reagent)	PFECA G	1000000 ug/L
...PFC_ST_00329	02/26/23		Chemours, Lot N/A				(Purchased Reagent)	PPF Acid	1000000 ug/L
...PFC_ST_00332	02/26/23		Chemours, Lot N/A				(Purchased Reagent)	MTP	1000000 ug/L
...PFC_ST_01117	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	PFMOAA	1000000 ug/L
...PFC_ST_01118	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	R-EVE	1000000 ug/L
...PFC_ST_01119	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	R-PSDA	1000000 ug/L
...PFC_ST_01120	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	Hydrolyzed PSDA	1000000 ug/L
...PFC_ST_01121	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	PFO2HxA	1000000 ug/L
...PFC_ST_01122	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	NVHOS	1000000 ug/L
...PFC_ST_01124	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	PFO3OA	1000000 ug/L
...PFC_ST_01127	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	PFO4DA	1000000 ug/L
...PFC_ST_01128	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	Hydro-EVE Acid	1000000 ug/L
...PFC_ST_01129	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	EVE Acid	1000000 ug/L
...PFC_ST_01130	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	R-PSDCA	1000000 ug/L
...PFC_ST_01131	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	Hydro-PS Acid	1000000 ug/L
...PFC_ST_01132	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	PS Acid	1000000 ug/L
...PFC_ST_01133	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	TAF	1000000 ug/L
...PFC_ST_01134	10/13/22		Chemours, Lot N/A				(Purchased Reagent)	PMPA	1000000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...PFC ST 01135	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PEPA	1000000 ug/L
.PFC_ST_01539	04/14/24		Wellington Laboratories, Lot 537PDSR10521		(Purchased Reagent)		11Cl-PF3OUdS	1860 ng/mL
							9Cl-PF3ONS	1860 ng/mL
							DONA	1890 ng/mL
							HFPODA	2000 ng/mL
							NETFOSAA	2000 ng/mL
							NMeFOSAA	2000 ng/mL
							Perfluorobutanesulfonic acid	1770 ng/mL
							Perfluorodecanoic acid	2000 ng/mL
							Perfluorododecanoic acid	2000 ng/mL
							Perfluoroheptanoic acid	2000 ng/mL
							Perfluorohexanesulfonic acid	1824 ng/mL
							Perfluorohexanoic acid	2000 ng/mL
							Perfluorononanoic acid	2000 ng/mL
							Perfluorooctanesulfonic acid	1851 ng/mL
							Perfluorooctanoic acid	2000 ng/mL
							Perfluorotetradecanoic acid	2000 ng/mL
							Perfluorotridecanoic acid	2000 ng/mL
							Perfluoroundecanoic acid	2000 ng/mL
PFC_SS_MODX_00239	07/01/22	04/01/22	Methanol, Lot ED260-US	12.5 mL	PFC_IN_00635	2.5 mL	13C8 PFOS	382.4 ng/mL
							13C3 PFBS	372 ng/mL
							13C3 PFHxS	378.4 ng/mL
							13C4 PFBA	400 ng/mL
							13C5 PFPeA	400 ng/mL
							13C5 PFHxA	400 ng/mL
							13C4 PFHpA	400 ng/mL
							13C8 PFOA	400 ng/mL
							13C9 PFNA	400 ng/mL
							13C6 PFDA	400 ng/mL
							13C7 PFUnA	400 ng/mL
							13C2-PFDoDA	400 ng/mL
							13C2 PFTeDA	400 ng/mL
							13C8 FOSA	400 ng/mL
							d3-NMePFOSA	400 ng/mL
							d5-NetPFOSA	400 ng/mL
							d7-N-MeFOSE-M	400 ng/mL
							d9-N-EtFOSE-M	400 ng/mL
							d3-NMeFOSAA	400 ng/mL
							d5-NetFOSAA	400 ng/mL
							13C3 HFPO-DA	400 ng/mL
							M2-4:2 FTS	373.6 ng/mL
							M2-6:2 FTS	380 ng/mL
							M2-8:2 FTS	383.2 ng/mL
					PFC_IN_00636	2.5 mL	13C-6:2 FTCA	400 ng/mL
							13C-8:2 FTCA	400 ng/mL
							13C-10:2 FTCA	400 ng/mL
							13C-6:2 FTUCA	400 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C-8:2 FTUCA	400 ng/mL
							13C-10:2 FTUCA	400 ng/mL
.PFC_IN_00635	10/01/22	04/01/22	Methanol, Lot ED260-US	25 mL	PFC_ST_01299	1 mL	13C8 PFOS	1912 ng/mL
					PFC_ST_01330	1 mL	13C3 PFBS	1860 ng/mL
					PFC_ST_01441	1 mL	13C3 PFHxS	1892 ng/mL
					PFC_ST_01443	1 mL	13C4 PFBA	2000 ng/mL
					PFC_ST_01444	1 mL	13C5 PFPeA	2000 ng/mL
					PFC_ST_01445	1 mL	13C5 PFHxA	2000 ng/mL
					PFC_ST_01446	1 mL	13C4 PFHpA	2000 ng/mL
					PFC_ST_01447	1 mL	13C8 PFOA	2000 ng/mL
					PFC_ST_01448	1 mL	13C9 PFNA	2000 ng/mL
					PFC_ST_01449	1 mL	13C6 PFDA	2000 ng/mL
					PFC_ST_01450	1 mL	13C7 PFUnA	2000 ng/mL
					PFC_ST_01451	1 mL	13C2-PFDoDA	2000 ng/mL
					PFC_ST_01452	1 mL	13C2 PFTeDA	2000 ng/mL
					PFC_ST_01453	1 mL	13C8 FOSA	2000 ng/mL
					PFC_ST_01454	1 mL	d3-NMePFOSA	2000 ng/mL
					PFC_ST_01455	1 mL	d5-NetPFOSA	2000 ng/mL
					PFC_ST_01456	1 mL	d7-N-MeFOSE-M	2000 ng/mL
					PFC_ST_01457	1 mL	d9-N-EtFOSE-M	2000 ng/mL
					PFC_ST_01458	1 mL	d3-NMeFOSAA	2000 ng/mL
					PFC_ST_01459	1 mL	d5-NetFOSAA	2000 ng/mL
					PFC_ST_01460	1 mL	13C3 HFPO-DA	2000 ng/mL
					PFC_ST_01461	1 mL	M2-4:2 FTS	1868 ng/mL
					PFC_ST_01462	1 mL	M2-6:2 FTS	1900 ng/mL
					PFC_ST_01463	1 mL	M2-8:2 FTS	1916 ng/mL
..PFC_ST_01299	02/10/23	Wellington Laboratories, Lot M8PFOS0721			(Purchased Reagent)		13C8 PFOS	47800 ng/mL
..PFC_ST_01330	02/28/23	Wellington Laboratories, Lot M3PFBS0821			(Purchased Reagent)		13C3 PFBS	46500 ng/mL
..PFC_ST_01441	02/28/24	Wellington Laboratories, Lot M3PFHxS1221			(Purchased Reagent)		13C3 PFHxS	47300 ng/mL
..PFC_ST_01443	02/28/24	Wellington Laboratories, Lot MPFBA0621			(Purchased Reagent)		13C4 PFBA	50000 ng/mL
..PFC_ST_01444	02/28/24	Wellington Laboratories, Lot M5PFPeA0821			(Purchased Reagent)		13C5 PFPeA	50000 ng/mL
..PFC_ST_01445	03/10/23	Wellington Laboratories, Lot M5PFHxA1021			(Purchased Reagent)		13C5 PFHxA	50000 ng/mL
..PFC_ST_01446	02/28/24	Wellington Laboratories, Lot M4PFHpA1121			(Purchased Reagent)		13C4 PFHpA	50000 ng/mL
..PFC_ST_01447	02/28/24	Wellington Laboratories, Lot M8PFOA1221			(Purchased Reagent)		13C8 PFOA	50000 ng/mL
..PFC_ST_01448	02/28/24	Wellington Laboratories, Lot M9PFNA0621			(Purchased Reagent)		13C9 PFNA	50000 ng/mL
..PFC_ST_01449	02/28/24	Wellington Laboratories, Lot M6PFDA0721			(Purchased Reagent)		13C6 PFDA	50000 ng/mL
..PFC_ST_01450	02/28/24	Wellington Laboratories, Lot M7PFUnA0821			(Purchased Reagent)		13C7 PFUnA	50000 ng/mL
..PFC_ST_01451	02/28/24	Wellington Laboratories, Lot MPFDoA0821			(Purchased Reagent)		13C2-PFDoDA	50000 ng/mL
..PFC_ST_01452	02/18/24	Wellington Laboratories, Lot M2PFTeDA1121			(Purchased Reagent)		13C2 PFTeDA	50000 ng/mL
..PFC_ST_01453	03/10/23	Wellington Laboratories, Lot M8FOSA0921I			(Purchased Reagent)		13C8 FOSA	50000 ng/mL
..PFC_ST_01454	02/28/24	Wellington Laboratories, Lot dNMeFOSA1021M			(Purchased Reagent)		d3-NMePFOSA	50000 ng/mL
..PFC_ST_01455	02/28/24	Wellington Laboratories, Lot dNetFOSA0821M			(Purchased Reagent)		d5-NetPFOSA	50000 ng/mL
..PFC_ST_01456	02/28/24	Wellington Laboratories, Lot d7NMeFOSE1221M			(Purchased Reagent)		d7-N-MeFOSE-M	50000 ng/mL
..PFC_ST_01457	02/28/24	Wellington Laboratories, Lot d9NEtFOSE1221M			(Purchased Reagent)		d9-N-EtFOSE-M	50000 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..PFC_ST_01458	02/28/24		Wellington Laboratories, Lot d3NMeFOSAA0521		(Purchased Reagent)		d3-NMeFOSAA	50000 ng/mL
..PFC_ST_01459	02/28/24		Wellington Laboratories, Lot d5NEtFOSAA0921		(Purchased Reagent)		d5-NEtFOSAA	50000 ng/mL
..PFC ST 01460	02/28/24		Wellington Laboratories, Lot M3HFPODA1121		(Purchased Reagent)		13C3 HFPO-DA	50000 ng/mL
..PFC ST 01461	02/28/24		Wellington Laboratories, Lot M242FTS01021		(Purchased Reagent)		M2-4:2 FTS	46700 ng/mL
..PFC ST 01462	02/28/24		Wellington Laboratories, Lot M262FTS01021		(Purchased Reagent)		M2-6:2 FTS	47500 ng/mL
..PFC ST 01463	02/28/24		Wellington Laboratories, Lot M282FTS1121		(Purchased Reagent)		M2-8:2 FTS	47900 ng/mL
.PFC_IN_00636	10/01/22	04/01/22	Methanol, Lot ED260-US	25 mL	PFC ST 01464	1 mL	13C-6:2 FTCA	2000 ppb
					PFC ST 01465	1 mL	13C-8:2 FTCA	2000 ppb
					PFC ST 01466	1 mL	13C-10:2 FTCA	2000 ppb
					PFC ST 01467	1 mL	13C-6:2 FTUCA	2000 ppb
					PFC ST 01468	1 mL	13C-8:2 FTUCA	2000 ppb
					PFC ST 01469	1 mL	13C-10:2 FTUCA	2000 ppb
..PFC ST 01464	03/22/23		Wellington Laboratories, Lot MFHEA0921		(Purchased Reagent)		13C-6:2 FTCA	50000 ppb
..PFC ST 01465	03/22/23		Wellington Laboratories, Lot MFOEA1121		(Purchased Reagent)		13C-8:2 FTCA	50000 ppb
..PFC ST 01466	03/22/23		Wellington Laboratories, Lot MFDEA0921		(Purchased Reagent)		13C-10:2 FTCA	50000 ppb
..PFC ST 01467	03/22/23		Wellington Laboratories, Lot MFHUEA0322		(Purchased Reagent)		13C-6:2 FTUCA	50000 ppb
..PFC ST 01468	03/22/23		Wellington Laboratories, Lot MFOUEA1121		(Purchased Reagent)		13C-8:2 FTUCA	50000 ppb
..PFC ST 01469	03/22/23		Wellington Laboratories, Lot MFDUEA1221		(Purchased Reagent)		13C-10:2 FTUCA	50000 ppb
PFC_SS_MODX_00273	08/15/22	06/15/22	Methanol, Lot ED663-US	25 mL	PFC_IN_00709	5 mL	13C8 PFOS	382.4 ng/mL
							13C3 PFBS	372 ng/mL
							13C3 PFHxS	378.4 ng/mL
							13C4 PFBA	400 ng/mL
							13C5 PFPeA	400 ng/mL
							13C5 PFHxA	400 ng/mL
							13C4 PFHpA	400 ng/mL
							13C8 PFOA	400 ng/mL
							13C9 PFNA	400 ng/mL
							13C6 PFDA	400 ng/mL
							13C7 PFUnA	400 ng/mL
							13C2-PFDoDA	400 ng/mL
							13C2 PFTeDA	400 ng/mL
							13C8 FOSA	400 ng/mL
							d3-NMePFOSA	400 ng/mL
							d5-NEtPFOSA	400 ng/mL
							d7-N-MeFOSE-M	400 ng/mL
							d9-N-EtFOSE-M	400 ng/mL
					d3-NMeFOSAA	400 ng/mL		
					d5-NEtFOSAA	400 ng/mL		
					13C3 HFPO-DA	400 ng/mL		
					M2-4:2 FTS	373.6 ng/mL		
					M2-6:2 FTS	380 ng/mL		
					M2-8:2 FTS	383.2 ng/mL		
					PFC_IN_00710	5 mL	13C-6:2 FTCA	400 ng/mL
							13C-8:2 FTCA	400 ng/mL
		13C-10:2 FTCA	400 ng/mL					
		13C-6:2 FTUCA	400 ng/mL					

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C-8:2 FTUCA	400 ng/mL
							13C-10:2 FTUCA	400 ng/mL
.PFC_IN_00709	12/15/22	06/15/22	Methanol, Lot ED633-US	25 mL	PFC_ST_01570	1 mL	13C8 PFOS	1912 ppb
					PFC_ST_01645	1 mL	13C3 PFBS	1860 ppb
					PFC_ST_01646	1 mL	13C3 PFHxS	1892 ppb
					PFC_ST_01648	1 mL	13C4 PFBA	2000 ppb
					PFC_ST_01649	1 mL	13C5 PFPeA	2000 ppb
					PFC_ST_01650	1 mL	13C5 PFHxA	2000 ppb
					PFC_ST_01651	1 mL	13C4 PFHpA	2000 ppb
					PFC_ST_01652	1 mL	13C8 PFOA	2000 ppb
					PFC_ST_01653	1 mL	13C9 PFNA	2000 ppb
					PFC_ST_01654	1 mL	13C6 PFDA	2000 ppb
					PFC_ST_01655	1 mL	13C7 PFUnA	2000 ppb
					PFC_ST_01656	1 mL	13C2-PFDoDA	2000 ppb
					PFC_ST_01657	1 mL	13C2 PFTeDA	2000 ppb
					PFC_ST_01658	1 mL	13C8 FOSA	2000 ppb
					PFC_ST_01659	1 mL	d3-NMePFOSA	2000 ppb
					PFC_ST_01660	1 mL	d5-NetPFOSA	2000 ppb
					PFC_ST_01661	1 mL	d7-N-MeFOSE-M	2000 ppb
					PFC_ST_01662	1 mL	d9-N-EtFOSE-M	2000 ppb
					PFC_ST_01663	1 mL	d3-NMeFOSAA	2000 ppb
					PFC_ST_01664	1 mL	d5-NetFOSAA	2000 ppb
					PFC_ST_01665	1 mL	13C3 HFPO-DA	2000 ppb
					PFC_ST_01666	1 mL	M2-4:2 FTS	1868 ppb
					PFC_ST_01667	1 mL	M2-6:2 FTS	1900 ppb
					PFC_ST_01668	1 mL	M2-8:2 FTS	1916 ppb
..PFC_ST_01570	05/09/24	Wellington Laboratories, Lot M8PFOS0721			(Purchased Reagent)		13C8 PFOS	47800 ng/mL
..PFC_ST_01645	06/02/26	Wellington Laboratories, Lot M3PFBS0222			(Purchased Reagent)		13C3 PFBS	46500 ng/mL
..PFC_ST_01646	06/02/26	Wellington Laboratories, Lot M3PFHxS1221			(Purchased Reagent)		13C3 PFHxS	47300 ng/mL
..PFC_ST_01648	06/02/26	Wellington Laboratories, Lot MPFBA0522			(Purchased Reagent)		13C4 PFBA	50000 ng/mL
..PFC_ST_01649	06/02/26	Wellington Laboratories, Lot M5PFPeA0821			(Purchased Reagent)		13C5 PFPeA	50000 ng/mL
..PFC_ST_01650	06/02/26	Wellington Laboratories, Lot M5PFHxA1021			(Purchased Reagent)		13C5 PFHxA	50000 ng/mL
..PFC_ST_01651	06/02/26	Wellington Laboratories, Lot M4PFHpA1121			(Purchased Reagent)		13C4 PFHpA	50000 ng/mL
..PFC_ST_01652	06/02/26	Wellington Laboratories, Lot M8PFOA1221			(Purchased Reagent)		13C8 PFOA	50000 ng/mL
..PFC_ST_01653	06/02/26	Wellington Laboratories, Lot M9PFNA0222			(Purchased Reagent)		13C9 PFNA	50000 ng/mL
..PFC_ST_01654	06/02/26	Wellington Laboratories, Lot M6PFDA0222			(Purchased Reagent)		13C6 PFDA	50000 ng/mL
..PFC_ST_01655	06/02/26	Wellington Laboratories, Lot M7PFUnA0821			(Purchased Reagent)		13C7 PFUnA	50000 ng/mL
..PFC_ST_01656	06/02/26	Wellington Laboratories, Lot MPFDoA0322			(Purchased Reagent)		13C2-PFDoDA	50000 ng/mL
..PFC_ST_01657	06/02/26	Wellington Laboratories, Lot M2PFTeDA0522			(Purchased Reagent)		13C2 PFTeDA	50000 ng/mL
..PFC_ST_01658	06/02/26	Wellington Laboratories, Lot M8FOSA0322I			(Purchased Reagent)		13C8 FOSA	50000 ng/mL
..PFC_ST_01659	06/02/26	Wellington Laboratories, Lot dNMeFOSA0422M			(Purchased Reagent)		d3-NMePFOSA	50000 ng/mL
..PFC_ST_01660	06/02/26	Wellington Laboratories, Lot dNetFOSA0322M			(Purchased Reagent)		d5-NetPFOSA	50000 ng/mL
..PFC_ST_01661	06/02/26	Wellington Laboratories, Lot d7NMeFOSE1221M			(Purchased Reagent)		d7-N-MeFOSE-M	50000 ng/mL
..PFC_ST_01662	06/02/26	Wellington Laboratories, Lot d9NEtFOSE1221M			(Purchased Reagent)		d9-N-EtFOSE-M	50000 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..PFC_ST_01663	06/02/26		Wellington Laboratories, Lot d3NMeFOSAA0222		(Purchased Reagent)		d3-NMeFOSAA	50000 ng/mL
..PFC_ST_01664	06/02/26		Wellington Laboratories, Lot d5NEtFOSAA0522		(Purchased Reagent)		d5-NEtFOSAA	50000 ng/mL
..PFC ST 01665	06/02/26		Wellington Laboratories, Lot M3HFPODA0522		(Purchased Reagent)		13C3 HFPO-DA	50000 ng/mL
..PFC ST 01666	06/02/26		Wellington Laboratories, Lot M242FTS0422		(Purchased Reagent)		M2-4:2 FTS	46700 ng/mL
..PFC ST 01667	06/02/26		Wellington Laboratories, Lot M262FTS0222		(Purchased Reagent)		M2-6:2 FTS	47500 ng/mL
..PFC ST 01668	06/02/26		Wellington Laboratories, Lot M282FTS1121		(Purchased Reagent)		M2-8:2 FTS	47900 ng/mL
.PFC_IN_00710	12/15/22	06/15/22	Methanol, Lot ED663-US	25 mL	PFC ST 01669	1 mL	13C-6:2 FTCA	2000 ppb
					PFC ST 01670	1 mL	13C-8:2 FTCA	2000 ppb
					PFC ST 01671	1 mL	13C-10:2 FTCA	2000 ppb
					PFC ST 01672	1 mL	13C-6:2 FTUCA	2000 ppb
					PFC ST 01673	1 mL	13C-8:2 FTUCA	2000 ppb
					PFC ST 01674	1 mL	13C-10:2 FTUCA	2000 ppb
..PFC ST 01669	06/02/24		Wellington Laboratories, Lot MFHEA0921		(Purchased Reagent)		13C-6:2 FTCA	50000 ppb
..PFC ST 01670	06/02/24		Wellington Laboratories, Lot MFOEA1121		(Purchased Reagent)		13C-8:2 FTCA	50000 ppb
..PFC ST 01671	06/02/24		Wellington Laboratories, Lot MFDEA0921		(Purchased Reagent)		13C-10:2 FTCA	50000 ppb
..PFC ST 01672	06/02/24		Wellington Laboratories, Lot MFHUEA0322		(Purchased Reagent)		13C-6:2 FTUCA	50000 ppb
..PFC ST 01673	06/02/24		Wellington Laboratories, Lot MFOUEA1121		(Purchased Reagent)		13C-8:2 FTUCA	50000 ppb
..PFC ST 01674	06/02/24		Wellington Laboratories, Lot MFDUEA1221		(Purchased Reagent)		13C-10:2 FTUCA	50000 ppb
PFC_SS_MODX_00279	08/28/22	06/28/22	Methanol, Lot ED531-US	12.5 mL	PFC_IN_00714	2.5 mL	13C3 PFBS	372 ng/mL
							13C3 PFHxS	378.4 ng/mL
							13C8 PFOS	382.4 ng/mL
							13C4 PFBA	400 ng/mL
							13C5 PFPeA	400 ng/mL
							13C5 PFHxA	400 ng/mL
							13C4 PFHpA	400 ng/mL
							13C8 PFOA	400 ng/mL
							13C9 PFNA	400 ng/mL
							13C6 PFDA	400 ng/mL
							13C7 PFUnA	400 ng/mL
							13C2-PFDoDA	400 ng/mL
							13C2 PFTeDA	400 ng/mL
							13C8 FOSA	400 ng/mL
							d3-NMePFOSA	400 ng/mL
							d5-NEtPFOSA	400 ng/mL
							d7-N-MeFOSE-M	400 ng/mL
							d9-N-EtFOSE-M	400 ng/mL
					d3-NMeFOSAA	400 ng/mL		
					d5-NEtFOSAA	400 ng/mL		
					13C3 HFPO-DA	400 ng/mL		
					M2-4:2 FTS	373.6 ng/mL		
					M2-6:2 FTS	380 ng/mL		
					M2-8:2 FTS	383.2 ng/mL		
					PFC_IN_00715	2.5 mL	13C-6:2 FTCA	400 ng/mL
							13C-8:2 FTCA	400 ng/mL
	13C-10:2 FTCA	400 ng/mL						
	13C-6:2 FTUCA	400 ng/mL						

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C-8:2 FTUCA	400 ng/mL
							13C-10:2 FTUCA	400 ng/mL
.PFC_IN_00714	12/28/22	06/28/22	Methanol, Lot ED531-US	25 mL	PFC_ST_01645	1 mL	13C3 PFBS	1860 ppb
					PFC_ST_01646	1 mL	13C3 PFHxS	1892 ppb
					PFC_ST_01647	1 mL	13C8 PFOS	1912 ppb
					PFC_ST_01648	1 mL	13C4 PFBA	2000 ppb
					PFC_ST_01649	1 mL	13C5 PFPeA	2000 ppb
					PFC_ST_01650	1 mL	13C5 PFHxA	2000 ppb
					PFC_ST_01651	1 mL	13C4 PFHpA	2000 ppb
					PFC_ST_01652	1 mL	13C8 PFOA	2000 ppb
					PFC_ST_01653	1 mL	13C9 PFNA	2000 ppb
					PFC_ST_01654	1 mL	13C6 PFDA	2000 ppb
					PFC_ST_01655	1 mL	13C7 PFUnA	2000 ppb
					PFC_ST_01656	1 mL	13C2-PFDoDA	2000 ppb
					PFC_ST_01657	1 mL	13C2 PFTeDA	2000 ppb
					PFC_ST_01658	1 mL	13C8 FOSA	2000 ppb
					PFC_ST_01659	1 mL	d3-NMePFOSA	2000 ppb
					PFC_ST_01660	1 mL	d5-NetPFOSA	2000 ppb
					PFC_ST_01661	1 mL	d7-N-MeFOSE-M	2000 ppb
					PFC_ST_01662	1 mL	d9-N-EtFOSE-M	2000 ppb
					PFC_ST_01663	1 mL	d3-NMeFOSAA	2000 ppb
					PFC_ST_01664	1 mL	d5-NetFOSAA	2000 ppb
					PFC_ST_01665	1 mL	13C3 HFPO-DA	2000 ppb
					PFC_ST_01666	1 mL	M2-4:2 FTS	1868 ppb
					PFC_ST_01667	1 mL	M2-6:2 FTS	1900 ppb
					PFC_ST_01668	1 mL	M2-8:2 FTS	1916 ppb
..PFC_ST_01645	06/02/26	Wellington Laboratories, Lot M3PFBS0222			(Purchased Reagent)		13C3 PFBS	46500 ng/mL
..PFC_ST_01646	06/02/26	Wellington Laboratories, Lot M3PFHxS1221			(Purchased Reagent)		13C3 PFHxS	47300 ng/mL
..PFC_ST_01647	06/02/26	Wellington Laboratories, Lot M8PFOS0522			(Purchased Reagent)		13C8 PFOS	47800 ng/mL
..PFC_ST_01648	06/02/26	Wellington Laboratories, Lot MPFBA0522			(Purchased Reagent)		13C4 PFBA	50000 ng/mL
..PFC_ST_01649	06/02/26	Wellington Laboratories, Lot M5PFPeA0821			(Purchased Reagent)		13C5 PFPeA	50000 ng/mL
..PFC_ST_01650	06/02/26	Wellington Laboratories, Lot M5PFHxA1021			(Purchased Reagent)		13C5 PFHxA	50000 ng/mL
..PFC_ST_01651	06/02/26	Wellington Laboratories, Lot M4PFHpA1121			(Purchased Reagent)		13C4 PFHpA	50000 ng/mL
..PFC_ST_01652	06/02/26	Wellington Laboratories, Lot M8PFOA1221			(Purchased Reagent)		13C8 PFOA	50000 ng/mL
..PFC_ST_01653	06/02/26	Wellington Laboratories, Lot M9PFNA0222			(Purchased Reagent)		13C9 PFNA	50000 ng/mL
..PFC_ST_01654	06/02/26	Wellington Laboratories, Lot M6PFDA0222			(Purchased Reagent)		13C6 PFDA	50000 ng/mL
..PFC_ST_01655	06/02/26	Wellington Laboratories, Lot M7PFUnA0821			(Purchased Reagent)		13C7 PFUnA	50000 ng/mL
..PFC_ST_01656	06/02/26	Wellington Laboratories, Lot MPFDoA0322			(Purchased Reagent)		13C2-PFDoDA	50000 ng/mL
..PFC_ST_01657	06/02/26	Wellington Laboratories, Lot M2PFTeDA0522			(Purchased Reagent)		13C2 PFTeDA	50000 ng/mL
..PFC_ST_01658	06/02/26	Wellington Laboratories, Lot M8FOSA0322I			(Purchased Reagent)		13C8 FOSA	50000 ng/mL
..PFC_ST_01659	06/02/26	Wellington Laboratories, Lot dNMeFOSA0422M			(Purchased Reagent)		d3-NMePFOSA	50000 ng/mL
..PFC_ST_01660	06/02/26	Wellington Laboratories, Lot dNetFOSA0322M			(Purchased Reagent)		d5-NetPFOSA	50000 ng/mL
..PFC_ST_01661	06/02/26	Wellington Laboratories, Lot d7NMeFOSE1221M			(Purchased Reagent)		d7-N-MeFOSE-M	50000 ng/mL
..PFC_ST_01662	06/02/26	Wellington Laboratories, Lot d9NEtFOSE1221M			(Purchased Reagent)		d9-N-EtFOSE-M	50000 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..PFC_ST_01663	06/02/26		Wellington Laboratories, Lot d3NMeFOSAA0222		(Purchased Reagent)		d3-NMeFOSAA	50000 ng/mL
..PFC_ST_01664	06/02/26		Wellington Laboratories, Lot d5NEtFOSAA0522		(Purchased Reagent)		d5-NEtFOSAA	50000 ng/mL
..PFC ST 01665	06/02/26		Wellington Laboratories, Lot M3HFPODA0522		(Purchased Reagent)		13C3 HFPO-DA	50000 ng/mL
..PFC ST 01666	06/02/26		Wellington Laboratories, Lot M242FTS0422		(Purchased Reagent)		M2-4:2 FTS	46700 ng/mL
..PFC ST 01667	06/02/26		Wellington Laboratories, Lot M262FTS0222		(Purchased Reagent)		M2-6:2 FTS	47500 ng/mL
..PFC ST 01668	06/02/26		Wellington Laboratories, Lot M282FTS1121		(Purchased Reagent)		M2-8:2 FTS	47900 ng/mL
.PFC_IN_00715	12/28/22	06/28/22	Methanol, Lot ED531-US	25 mL	PFC ST 01669	1 mL	13C-6:2 FTCA	2000 ppb
					PFC ST 01670	1 mL	13C-8:2 FTCA	2000 ppb
					PFC ST 01671	1 mL	13C-10:2 FTCA	2000 ppb
					PFC ST 01672	1 mL	13C-6:2 FTUCA	2000 ppb
					PFC ST 01673	1 mL	13C-8:2 FTUCA	2000 ppb
					PFC ST 01674	1 mL	13C-10:2 FTUCA	2000 ppb
..PFC ST 01669	06/02/24		Wellington Laboratories, Lot MFHEA0921		(Purchased Reagent)		13C-6:2 FTCA	50000 ppb
..PFC ST 01670	06/02/24		Wellington Laboratories, Lot MFOEA1121		(Purchased Reagent)		13C-8:2 FTCA	50000 ppb
..PFC ST 01671	06/02/24		Wellington Laboratories, Lot MFDEA0921		(Purchased Reagent)		13C-10:2 FTCA	50000 ppb
..PFC ST 01672	06/02/24		Wellington Laboratories, Lot MFHUEA0322		(Purchased Reagent)		13C-6:2 FTUCA	50000 ppb
..PFC ST 01673	06/02/24		Wellington Laboratories, Lot MFOUEA1121		(Purchased Reagent)		13C-8:2 FTUCA	50000 ppb
..PFC ST 01674	06/02/24		Wellington Laboratories, Lot MFDUEA1221		(Purchased Reagent)		13C-10:2 FTUCA	50000 ppb
PFC_STD_XMOD1_00016	09/10/22	06/10/22	Methanol, Lot ED663-US	10 mL	PFC_IN_00701	0.05 mL	d5-NEtPFOSA	10 ppb
							13C3 HFPO-DA	10 ppb
							M2-8:2 FTS	9.58 ppb
							M2-6:2 FTS	9.5 ppb
							d3-NMePFOSA	10 ppb
							13C-6:2 FTCA	10 ppb
							13C-10:2 FTCA	10 ppb
							13C-8:2 FTCA	10 ppb
							d3-NMeFOSAA	10 ppb
							d5-NEtFOSAA	10 ppb
							d7-N-MeFOSE-M	10 ppb
							d9-N-EtFOSE-M	10 ppb
							13C8 FOSA	10 ppb
					M2-4:2 FTS	9.34 ppb		
					13C-6:2 FTUCA	10 ppb		
					13C-8:2 FTUCA	10 ppb		
					13C-10:2 FTUCA	10 ppb		
					PFC_IN_00703	0.1 mL	PFECA G	0.2 ppb
							PPF Acid	0.2 ppb
							MTP	0.2 ppb
							PFMOAA	0.2 ppb
							R-EVE	0.2 ppb
							R-PSDA	0.2 ppb
Hydrolyzed PSDA	0.2 ppb							
PFO2HxA	0.2 ppb							
NVHOS	0.2 ppb							
PFO3OA	0.2 ppb							
PFO4DA	0.2 ppb							

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hydro-EVE Acid	0.2 ppb
							EVE Acid	0.2 ppb
							R-PSDCA	0.2 ppb
							Hydro-PS Acid	0.2 ppb
							PS Acid	0.2 ppb
							TAF	0.2 ppb
							PMPA	0.2 ppb
							PEPA	0.2 ppb
					PFC_IN_00705	0.1 mL	Perfluorooctadecanoic acid	0.2 ppb
							N-ethylperfluoro-1-octanesulfo namide	0.2 ppb
							NMeFOSA	0.2 ppb
							1H,1H,2H,2H-perfluorodecanesul fonic acid (8:2)	0.1916 ppb
							1H,1H,2H,2H-perfluorododecanes ulfonic acid (10:2)	0.1928 ppb
							2- (N-ethylperfluoro-1-octanesulf onamido) ethanol	0.2 ppb
							2- (N-methylperfluoro-1-octanesul fonamido) ethanol	0.2 ppb
							Perfluorododecanesulfonic acid (PFDoS)	0.1936 ppb
							Perfluorohexadecanoic acid	0.2 ppb
							Perfluorooctanesulfonamide	0.2 ppb
							1H,1H,2H,2H-perfluorohexanesul fonic acid (4:2)	0.1868 ppb
							1H,1H,2H,2H-perfluorooctanesul fonic acid (6:2)	0.1896 ppb
							Perfluorobutanoic acid	0.2 ppb
							Perfluoropentanoic acid	0.2 ppb
							Perfluorodecanesulfonic acid	0.1928 ppb
							Perfluoroheptanesulfonic acid	0.1904 ppb
							Perfluorononanesulfonic acid	0.192 ppb
							Perfluoropentanesulfonic acid	0.1876 ppb
							3:3 FTCA	0.2 ppb
							5:3 FTCA	0.2 ppb
							7:3 FTCA	0.2 ppb
							6:2 FTCA	0.2 ppb
							8:2 FTCA	0.2 ppb
							10:2 FTCA	0.2 ppb
							PFECA F	0.2 ppb
							PFECA A	0.2 ppb
							PFECA B	0.2 ppb
							PES	0.178 ppb
							PFECHS	0.1844 ppb
							PFPPrS	0.1832 ppb
							6:2 FTUCA	0.2 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
							8:2 FTUCA	0.2 ppb		
							10:2 FTUCA	0.2 ppb		
							11Cl-PF3OUds	0.186 ppb		
							9Cl-PF3ONS	0.186 ppb		
							DONA	0.189 ppb		
							HFPODA	0.2 ppb		
							NEtFOSAA	0.2 ppb		
							NMeFOSAA	0.2 ppb		
							Perfluorobutanesulfonic acid	0.177 ppb		
							Perfluorodecanoic acid	0.2 ppb		
							Perfluorododecanoic acid	0.2 ppb		
							Perfluoroheptanoic acid	0.2 ppb		
							Perfluorohexanesulfonic acid	0.1824 ppb		
							Perfluorohexanoic acid	0.2 ppb		
							Perfluorononanoic acid	0.2 ppb		
							Perfluorooctanesulfonic acid	0.1851 ppb		
							Perfluorooctanoic acid	0.2 ppb		
							Perfluorotetradecanoic acid	0.2 ppb		
							Perfluorotridecanoic acid	0.2 ppb		
							Perfluoroundecanoic acid	0.2 ppb		
							PFC_ST_01219	0.05 mL	13C2 PFTeDA	10 ppb
									13C2-PFDoDA	10 ppb
									13C3 PFBS	9.3 ppb
									13C3 PFHxS	9.46 ppb
									13C4 PFBA	10 ppb
									13C4 PFHpA	10 ppb
		13C5 PFHxA	10 ppb							
		13C5 PFPeA	10 ppb							
		13C6 PFDA	10 ppb							
		13C7 PFUnA	10 ppb							
		13C8 PFOA	10 ppb							
		13C8 PFOS	9.56 ppb							
		13C9 PFNA	10 ppb							
PFC_ST_01249	0.025 mL	13C2 PFDA	5 ppb							
		13C2 PFOA	5 ppb							
		13C3-PFBA	5 ppb							
		13C4 PFOS	4.7825 ppb							
.PFC_IN_00701	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00981	0.2 mL	d5-NetPFOSA	2000 ppb		
					PFC_ST_00984	0.2 mL	13C3 HFPO-DA	2000 ppb		
					PFC_ST_00985	0.2 mL	M2-8:2 FTS	1916 ppb		
					PFC_ST_00986	0.2 mL	M2-6:2 FTS	1900 ppb		
					PFC_ST_01081	0.2 mL	d3-NMePFOSA	2000 ppb		
					PFC_ST_01108	0.2 mL	13C-6:2 FTCA	2000 ppb		
					PFC_ST_01109	0.2 mL	13C-10:2 FTCA	2000 ppb		
					PFC_ST_01113	0.2 mL	13C-8:2 FTCA	2000 ppb		
					PFC_ST_01215	0.2 mL	d3-NMeFOSAA	2000 ppb		
					PFC_ST_01216	0.2 mL	d5-NEtFOSAA	2000 ppb		
					PFC_ST_01293	0.2 mL	d7-N-MeFOSE-M	2000 ppb		

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_01295	0.2 mL	d9-N-EtFOSE-M	2000 ppb
					PFC_ST_01411	0.2 mL	13C8 FOSA	2000 ppb
					PFC_ST_01412	0.2 mL	M2-4:2 FTS	1868 ppb
					PFC_ST_01467	0.2 mL	13C-6:2 FTUCA	2000 ppb
					PFC_ST_01468	0.2 mL	13C-8:2 FTUCA	2000 ppb
					PFC_ST_01469	0.2 mL	13C-10:2 FTUCA	2000 ppb
..PFC_ST_00981	11/23/25	Wellington Laboratories, Lot dNetFOSA1120M			(Purchased Reagent)		d5-NETPFOSA	50000 ng/mL
..PFC_ST_00984	05/13/24	Wellington Laboratories, Lot M3HFPODA0521			(Purchased Reagent)		13C3 HFPO-DA	50000 ng/mL
..PFC_ST_00985	12/17/25	Wellington Laboratories, Lot M282FTS1220			(Purchased Reagent)		M2-8:2 FTS	47900 ng/mL
..PFC_ST_00986	05/14/26	Wellington Laboratories, Lot M262FTS0521			(Purchased Reagent)		M2-6:2 FTS	47500 ng/mL
..PFC_ST_01081	04/04/23	Wellington Laboratories, Lot dNMeFOSA0421M			(Purchased Reagent)		d3-NMePFOSA	50000 ng/mL
..PFC_ST_01108	04/04/23	Wellington Laboratories, Lot MFHEA0421			(Purchased Reagent)		13C-6:2 FTCA	50000 ppb
..PFC_ST_01109	04/04/23	Wellington Laboratories, Lot MFDEA0817			(Purchased Reagent)		13C-10:2 FTCA	50000 ppb
..PFC_ST_01113	04/04/23	Wellington Laboratories, Lot MFOEA1020			(Purchased Reagent)		13C-8:2 FTCA	50000 ppb
..PFC_ST_01215	04/04/23	Wellington Laboratories, Lot d3NMeFOSAA0521			(Purchased Reagent)		d3-NMeFOSAA	50000 ng/mL
..PFC_ST_01216	04/04/23	Wellington Laboratories, Lot d5NETFOSAA0921			(Purchased Reagent)		d5-NETFOSAA	50000 ng/mL
..PFC_ST_01293	02/10/23	Wellington Laboratories, Lot d7NMeFOSE1220M			(Purchased Reagent)		d7-N-MeFOSE-M	50000 ng/mL
..PFC_ST_01295	02/10/23	Wellington Laboratories, Lot d9NETFOSE1220M			(Purchased Reagent)		d9-N-EtFOSE-M	50000 ng/mL
..PFC_ST_01411	10/12/26	Wellington Laboratories, Lot M8FOSA0921I			(Purchased Reagent)		13C8 FOSA	50000 ng/mL
..PFC_ST_01412	10/13/26	Wellington Laboratories, Lot M242FTS01021			(Purchased Reagent)		M2-4:2 FTS	46700 ng/mL
..PFC_ST_01467	03/22/23	Wellington Laboratories, Lot MFHUEA0322			(Purchased Reagent)		13C-6:2 FTUCA	50000 ppb
..PFC_ST_01468	03/22/23	Wellington Laboratories, Lot MFOUEA1121			(Purchased Reagent)		13C-8:2 FTUCA	50000 ppb
..PFC_ST_01469	03/22/23	Wellington Laboratories, Lot MFDUEA1221			(Purchased Reagent)		13C-10:2 FTUCA	50000 ppb
..PFC_IN_00703	10/13/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00702	0.05 mL	PFECA G	20 ppb
							PPF Acid	20 ppb
							MTP	20 ppb
							PFMOAA	20 ppb
							R-EVE	20 ppb
							R-PSDA	20 ppb
							Hydrolyzed PSDA	20 ppb
							PFO2HxA	20 ppb
							NVHOS	20 ppb
							PFO3OA	20 ppb
							PFO4DA	20 ppb
							Hydro-EVE Acid	20 ppb
							EVE Acid	20 ppb
							R-PSDCA	20 ppb
							Hydro-PS Acid	20 ppb
							PS Acid	20 ppb
							TAF	20 ppb
							PMPA	20 ppb
							PEPA	20 ppb
..PFC_IN_00702	10/13/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00698	1 mL	PFECA G	2000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PPF Acid	2000 ppb
							MTP	2000 ppb
							PFMOAA	2000 ppb
							R-EVE	2000 ppb
							R-PSDA	2000 ppb
							Hydrolyzed PSDA	2000 ppb
							PFO2HxA	2000 ppb
							NVHOS	2000 ppb
							PFO3OA	2000 ppb
							PFO4DA	2000 ppb
							Hydro-EVE Acid	2000 ppb
							EVE Acid	2000 ppb
							R-PSDCA	2000 ppb
							Hydro-PS Acid	2000 ppb
							PS Acid	2000 ppb
							TAF	2000 ppb
							PMPA	2000 ppb
							PEPA	2000 ppb
...PFC_IN_00698	10/13/22	06/09/22	Methanol, Lot ED319-US	10 mL	PFC_ST_00199	0.1 mL	PFECA G	10000 ppb
					PFC_ST_00329	0.1 mL	PPF Acid	10000 ppb
					PFC_ST_00332	0.1 mL	MTP	10000 ppb
					PFC_ST_01117	0.1 mL	PFMOAA	10000 ppb
					PFC_ST_01118	0.1 mL	R-EVE	10000 ppb
					PFC_ST_01119	0.1 mL	R-PSDA	10000 ppb
					PFC_ST_01120	0.1 mL	Hydrolyzed PSDA	10000 ppb
					PFC_ST_01121	0.1 mL	PFO2HxA	10000 ppb
					PFC_ST_01122	0.1 mL	NVHOS	10000 ppb
					PFC_ST_01124	0.1 mL	PFO3OA	10000 ppb
					PFC_ST_01127	0.1 mL	PFO4DA	10000 ppb
					PFC_ST_01128	0.1 mL	Hydro-EVE Acid	10000 ppb
					PFC_ST_01129	0.1 mL	EVE Acid	10000 ppb
					PFC_ST_01130	0.1 mL	R-PSDCA	10000 ppb
					PFC_ST_01131	0.1 mL	Hydro-PS Acid	10000 ppb
					PFC_ST_01132	0.1 mL	PS Acid	10000 ppb
					PFC_ST_01133	0.1 mL	TAF	10000 ppb
					PFC_ST_01134	0.1 mL	PMPA	10000 ppb
					PFC_ST_01135	0.1 mL	PEPA	10000 ppb
....PFC_ST_00199	02/26/23		Chemours, Lot N/A				(Purchased Reagent) PFECA G	1000000 ug/L
....PFC_ST_00329	02/26/23		Chemours, Lot N/A				(Purchased Reagent) PPF Acid	1000000 ug/L
....PFC_ST_00332	02/26/23		Chemours, Lot N/A				(Purchased Reagent) MTP	1000000 ug/L
....PFC_ST_01117	10/13/22		Chemours, Lot N/A				(Purchased Reagent) PFMOAA	1000000 ug/L
....PFC_ST_01118	10/13/22		Chemours, Lot N/A				(Purchased Reagent) R-EVE	1000000 ug/L
....PFC_ST_01119	10/13/22		Chemours, Lot N/A				(Purchased Reagent) R-PSDA	1000000 ug/L
....PFC_ST_01120	10/13/22		Chemours, Lot N/A				(Purchased Reagent) Hydrolyzed PSDA	1000000 ug/L
....PFC_ST_01121	10/13/22		Chemours, Lot N/A				(Purchased Reagent) PFO2HxA	1000000 ug/L
....PFC_ST_01122	10/13/22		Chemours, Lot N/A				(Purchased Reagent) NVHOS	1000000 ug/L
....PFC_ST_01124	10/13/22		Chemours, Lot N/A				(Purchased Reagent) PFO3OA	1000000 ug/L
....PFC_ST_01127	10/13/22		Chemours, Lot N/A				(Purchased Reagent) PFO4DA	1000000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
....PFC ST 01128	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydro-EVE Acid	1000000 ug/L
....PFC ST 01129	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		EVE Acid	1000000 ug/L
....PFC ST 01130	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-PSDCA	1000000 ug/L
....PFC ST 01131	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydro-PS Acid	1000000 ug/L
....PFC ST 01132	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PS Acid	1000000 ug/L
....PFC ST 01133	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		TAF	1000000 ug/L
....PFC ST 01134	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PMPA	1000000 ug/L
....PFC ST 01135	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PEPA	1000000 ug/L
.PFC_IN_00705	12/09/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00704	0.2 mL	Perfluorooctadecanoic acid	20 ng/mL
							N-ethylperfluoro-1-octanesulfo namide	20 ng/mL
							NMeFOSA	20 ng/mL
							1H,1H,2H,2H-perfluorodecanesul fonic acid (8:2)	19.16 ng/mL
							1H,1H,2H,2H-perfluorododecanes ulfonic acid (10:2)	19.28 ng/mL
							2- (N-ethylperfluoro-1-octanesulf onamido) ethanol	20 ng/mL
							2- (N-methylperfluoro-1-octanesul fonamido) ethanol	20 ng/mL
							Perfluorododecanesulfonic acid (PFDoS)	19.36 ng/mL
							Perfluorohexadecanoic acid	20 ng/mL
							Perfluorooctanesulfonamide	20 ng/mL
							1H,1H,2H,2H-perfluorohexanesul fonic acid (4:2)	18.68 ng/mL
							1H,1H,2H,2H-perfluorooctanesul fonic acid (6:2)	18.96 ng/mL
							Perfluorobutanoic acid	20 ng/mL
							Perfluoropentanoic acid	20 ng/mL
							Perfluorodecanesulfonic acid	19.28 ng/mL
							Perfluoroheptanesulfonic acid	19.04 ng/mL
							Perfluorononanesulfonic acid	19.2 ng/mL
							Perfluoropentanesulfonic acid	18.76 ng/mL
							3:3 FTCA	20 ng/mL
							5:3 FTCA	20 ng/mL
							7:3 FTCA	20 ng/mL
							6:2 FTCA	20 ng/mL
							8:2 FTCA	20 ng/mL
							10:2 FTCA	20 ng/mL
							PFECA F	20 ng/mL
							PFECA A	20 ng/mL
							PFECA B	20 ng/mL
							PES	17.8 ng/mL
							PFECHS	18.44 ng/mL
							PFPPrS	18.32 ng/mL
							6:2 FTUCA	20 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							8:2 FTUCA	20 ng/mL
							10:2 FTUCA	20 ng/mL
							11Cl-PF3OUds	18.6 ng/mL
							9Cl-PF3ONS	18.6 ng/mL
							DONA	18.9 ng/mL
							HFPODA	20 ng/mL
							NEtFOSAA	20 ng/mL
							NMeFOSAA	20 ng/mL
							Perfluorobutanesulfonic acid	17.7 ng/mL
							Perfluorodecanoic acid	20 ng/mL
							Perfluorododecanoic acid	20 ng/mL
							Perfluoroheptanoic acid	20 ng/mL
							Perfluorohexanesulfonic acid	18.24 ng/mL
							Perfluorohexanoic acid	20 ng/mL
							Perfluorononanoic acid	20 ng/mL
							Perfluorooctanesulfonic acid	18.51 ng/mL
							Perfluorooctanoic acid	20 ng/mL
							Perfluorotetradecanoic acid	20 ng/mL
							Perfluorotridecanoic acid	20 ng/mL
							Perfluoroundecanoic acid	20 ng/mL
..PFC_IN_00704	12/09/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00699	1.25 mL	Perfluorooctadecanoic acid	500 ng/mL
							N-ethylperfluoro-1-octanesulfo namide	500 ng/mL
							NMeFOSA	500 ng/mL
							1H,1H,2H,2H-perfluorodecanesul fonic acid (8:2)	479 ng/mL
							1H,1H,2H,2H-perfluorododecanes ulfonic acid (10:2)	482 ng/mL
							2- (N-ethylperfluoro-1-octanesulf onamido) ethanol	500 ng/mL
							2- (N-methylperfluoro-1-octanesul fonamido) ethanol	500 ng/mL
							Perfluorododecanesulfonic acid (PFDoS)	484 ng/mL
							Perfluorohexadecanoic acid	500 ng/mL
							Perfluorooctanesulfonamide	500 ng/mL
							1H,1H,2H,2H-perfluorohexanesul fonic acid (4:2)	467 ng/mL
							1H,1H,2H,2H-perfluorooctanesul fonic acid (6:2)	474 ng/mL
							Perfluorobutanoic acid	500 ng/mL
							Perfluoropentanoic acid	500 ng/mL
							Perfluorodecanesulfonic acid	482 ng/mL
							Perfluoroheptanesulfonic acid	476 ng/mL
							Perfluorononanesulfonic acid	480 ng/mL
							Perfluoropentanesulfonic acid	469 ng/mL
					PFC_IN_00700	1.25 mL	3:3 FTCA	500 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							5:3 FTCA	500 ng/mL
							7:3 FTCA	500 ng/mL
							6:2 FTCA	500 ng/mL
							8:2 FTCA	500 ng/mL
							10:2 FTCA	500 ng/mL
							PFECA F	500 ng/mL
							PFECA A	500 ng/mL
							PFECA B	500 ng/mL
							PES	445 ng/mL
							PFECHS	461 ng/mL
							PFPrS	458 ng/mL
							6:2 FTUCA	500 ng/mL
							8:2 FTUCA	500 ng/mL
							10:2 FTUCA	500 ng/mL
							PFC_ST_01549	1.25 mL
							9Cl-PF3ONS	465 ng/mL
							DONA	472.5 ng/mL
							HFPODA	500 ng/mL
							NEtFOSAA	500 ng/mL
							NMeFOSAA	500 ng/mL
		Perfluorobutanesulfonic acid	442.5 ng/mL					
		Perfluorodecanoic acid	500 ng/mL					
		Perfluorododecanoic acid	500 ng/mL					
		Perfluoroheptanoic acid	500 ng/mL					
		Perfluorohexanesulfonic acid	456 ng/mL					
		Perfluorohexanoic acid	500 ng/mL					
		Perfluorononanoic acid	500 ng/mL					
		Perfluorooctanesulfonic acid	462.75 ng/mL					
		Perfluorooctanoic acid	500 ng/mL					
		Perfluorotetradecanoic acid	500 ng/mL					
		Perfluorotridecanoic acid	500 ng/mL					
		Perfluoroundecanoic acid	500 ng/mL					
...PFC_IN_00699	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00747	0.2 mL	Perfluorooctadecanoic acid	2000 ng/mL
					PFC_ST_00971	0.2 mL	N-ethylperfluoro-1-octanesulfonamide	2000 ng/mL
					PFC_ST_00972	0.2 mL	NMeFOSA	2000 ng/mL
					PFC_ST_00976	0.2 mL	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1916 ng/mL
					PFC_ST_00977	0.2 mL	1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	1928 ng/mL
					PFC_ST_01073	0.2 mL	2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	2000 ng/mL
					PFC_ST_01082	0.2 mL	2-(N-methylperfluoro-1-octanesulfonamido) ethanol	2000 ng/mL
					PFC_ST_01224	0.2 mL	Perfluorododecanesulfonic acid (PFDoS)	1936 ng/mL
					PFC_ST_01226	0.2 mL	Perfluorohexadecanoic acid	2000 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_01227	0.2 mL	Perfluorooctanesulfonamide	2000 ng/mL
					PFC_ST_01228	0.2 mL	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	1868 ng/mL
					PFC_ST_01229	0.2 mL	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1896 ng/mL
					PFC ST 01232	0.2 mL	Perfluorobutanoic acid	2000 ng/mL
					PFC ST 01233	0.2 mL	Perfluoropentanoic acid	2000 ng/mL
					PFC ST 01234	0.2 mL	Perfluorodecanesulfonic acid	1928 ng/mL
					PFC ST 01235	0.2 mL	Perfluoroheptanesulfonic acid	1904 ng/mL
					PFC ST 01236	0.2 mL	Perfluorononanesulfonic acid	1920 ng/mL
					PFC ST 01237	0.2 mL	Perfluoropentanesulfonic acid	1876 ng/mL
....PFC_ST_00747	11/13/25	Wellington Laboratories, Lot PFODA1020			(Purchased Reagent)		Perfluorooctadecanoic acid	50000 ng/mL
....PFC_ST_00971	11/23/25	Wellington Laboratories, Lot NETFOSA1120M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50000 ng/mL
....PFC_ST_00972	10/20/25	Wellington Laboratories, Lot NMeFOSA1020M			(Purchased Reagent)		NMeFOSA	50000 ng/mL
....PFC_ST_00976	12/01/25	Wellington Laboratories, Lot 82FTS1120			(Purchased Reagent)		1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	47900 ng/mL
....PFC_ST_00977	03/03/26	Wellington Laboratories, Lot 102FTS0221			(Purchased Reagent)		1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	48200 ng/mL
....PFC_ST_01073	06/02/26	Wellington Laboratories, Lot NETFOSE0521M			(Purchased Reagent)		2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
....PFC_ST_01082	06/02/26	Wellington Laboratories, Lot NMeFOSE0521M			(Purchased Reagent)		2-(N-methylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
....PFC_ST_01224	02/16/23	Wellington Laboratories, Lot LPPDoS0721			(Purchased Reagent)		Perfluorododecanesulfonic acid (PFDoS)	48400 ng/mL
....PFC_ST_01226	05/07/26	Wellington Laboratories, Lot PFHxDA0421			(Purchased Reagent)		Perfluorohexadecanoic acid	50000 ng/mL
....PFC_ST_01227	08/10/26	Wellington Laboratories, Lot FOSA0721I			(Purchased Reagent)		Perfluorooctanesulfonamide	50000 ng/mL
....PFC_ST_01228	10/04/26	Wellington Laboratories, Lot 42FTS0921			(Purchased Reagent)		1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	46700 ng/mL
....PFC_ST_01229	06/09/26	Wellington Laboratories, Lot 62FTS0521			(Purchased Reagent)		1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47400 ng/mL
....PFC_ST_01232	10/04/26	Wellington Laboratories, Lot PFBA1021			(Purchased Reagent)		Perfluorobutanoic acid	50000 ng/mL
....PFC_ST_01233	08/10/26	Wellington Laboratories, Lot PFPeA0721			(Purchased Reagent)		Perfluoropentanoic acid	50000 ng/mL
....PFC_ST_01234	08/19/26	Wellington Laboratories, Lot LPPFDS0821			(Purchased Reagent)		Perfluorodecanesulfonic acid	48200 ng/mL
....PFC_ST_01235	07/09/26	Wellington Laboratories, Lot LPPHPS0721			(Purchased Reagent)		Perfluoroheptanesulfonic acid	47600 ng/mL
....PFC_ST_01236	10/19/26	Wellington Laboratories, Lot LPPNS1021			(Purchased Reagent)		Perfluorononanesulfonic acid	48000 ng/mL
....PFC_ST_01237	07/12/26	Wellington Laboratories, Lot LPPPeS0721			(Purchased Reagent)		Perfluoropentanesulfonic acid	46900 ng/mL
...PFC_IN_00700	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC ST 01094	0.2 mL	3:3 FTCA	2000 ppb
					PFC ST 01095	0.2 mL	5:3 FTCA	2000 ppb
					PFC ST 01096	0.2 mL	7:3 FTCA	2000 ppb
					PFC ST 01097	0.2 mL	6:2 FTCA	2000 ppb
					PFC ST 01098	0.2 mL	8:2 FTCA	2000 ppb
					PFC ST 01099	0.2 mL	10:2 FTCA	2000 ppb
					PFC ST 01103	0.2 mL	PFECA F	2000 ppb
					PFC ST 01104	0.2 mL	PFECA A	2000 ppb
					PFC ST 01105	0.2 mL	PFECA B	2000 ppb
					PFC_ST_01106	0.2 mL	PES	1780 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC ST 01107	0.2 mL	PFECHS	1844 ppb
					PFC ST 01223	0.2 mL	PFPrS	1832 ppb
					PFC ST 01367	0.2 mL	6:2 FTUCA	2000 ppb
					PFC ST 01368	0.2 mL	8:2 FTUCA	2000 ppb
					PFC ST 01369	0.2 mL	10:2 FTUCA	2000 ppb
....PFC ST 01094	11/12/25	Wellington Laboratories, Lot FPrPA1020			(Purchased Reagent)		3:3 FTCA	50000 ng/mL
....PFC ST 01095	11/11/25	Wellington Laboratories, Lot FPePA1120			(Purchased Reagent)		5:3 FTCA	50000 ng/mL
....PFC ST 01096	11/12/25	Wellington Laboratories, Lot FHpPA1020			(Purchased Reagent)		7:3 FTCA	50000 ng/mL
....PFC ST 01097	03/08/24	Wellington Laboratories, Lot FHEA0321			(Purchased Reagent)		6:2 FTCA	50000 ng/mL
....PFC ST 01098	08/18/24	Wellington Laboratories, Lot FOEA0821			(Purchased Reagent)		8:2 FTCA	50000 ng/mL
....PFC ST 01099	07/07/23	Wellington Laboratories, Lot FDEA0720			(Purchased Reagent)		10:2 FTCA	50000 ng/mL
....PFC ST 01103	03/31/25	Wellington Laboratories, Lot PF40PeA0320			(Purchased Reagent)		PFECA F	50000 ng/mL
....PFC ST 01104	03/31/25	Wellington Laboratories, Lot PF50HxA0320			(Purchased Reagent)		PFECA A	50000 ng/mL
....PFC ST 01105	03/31/25	Wellington Laboratories, Lot 360PFHpA0320			(Purchased Reagent)		PFECA B	50000 ng/mL
....PFC ST 01106	05/13/25	Wellington Laboratories, Lot PFEEESA0520			(Purchased Reagent)		PES	44500 ppb
....PFC ST 01107	04/06/26	Wellington Laboratoires, Lot PFECHS0421			(Purchased Reagent)		PFECHS	46100 ppb
....PFC ST 01223	07/12/26	Wellington Laboratories, Lot LPPPrS0721			(Purchased Reagent)		PFPrS	45800 ppb
....PFC ST 01367	09/03/23	Wellington Laboratories, Lot FHUEA0921			(Purchased Reagent)		6:2 FTUCA	50000 ng/mL
....PFC ST 01368	03/29/23	Wellington Laboratories, Lot FOUEA0321			(Purchased Reagent)		8:2 FTUCA	50000 ng/mL
....PFC ST 01369	03/29/23	Wellington Laboratories, Lot FDUEA1021			(Purchased Reagent)		10:2 FTUCA	50000 ng/mL
...PFC_ST_01549	06/01/24	Wellington Laboratories, Lot 537PDSR10521			(Purchased Reagent)		11C1-PF3OUds	1860 ng/mL
							9C1-PF3ONS	1860 ng/mL
							DONA	1890 ng/mL
							HFPODA	2000 ng/mL
							NEtFOSAA	2000 ng/mL
							NMeFOSAA	2000 ng/mL
							Perfluorobutanesulfonic acid	1770 ng/mL
							Perfluorodecanoic acid	2000 ng/mL
							Perfluorododecanoic acid	2000 ng/mL
							Perfluoroheptanoic acid	2000 ng/mL
							Perfluorohexanesulfonic acid	1824 ng/mL
							Perfluorohexanoic acid	2000 ng/mL
							Perfluorononanoic acid	2000 ng/mL
							Perfluorooctanesulfonic acid	1851 ng/mL
							Perfluorooctanoic acid	2000 ng/mL
							Perfluorotetradecanoic acid	2000 ng/mL
							Perfluorotridecanoic acid	2000 ng/mL
							Perfluoroundecanoic acid	2000 ng/mL
.PFC_ST_01219	01/13/26	Wellington Laboratories, Lot MPFACCES0121			(Purchased Reagent)		13C2 PFTeDA	2000 ppb
							13C2-PFDoDA	2000 ppb
							13C3 PFBS	1860 ppb
							13C3 PFHxS	1892 ppb
							13C4 PFBA	2000 ppb
							13C4 PFHpA	2000 ppb
							13C5 PFHxA	2000 ppb
							13C5 PFPeA	2000 ppb
							13C6 PFDA	2000 ppb
							13C7 PFUnA	2000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.PFC_ST_01249	04/26/26	Wellington Laboratories, Lot MPFACCIS0516			(Purchased Reagent)		13C8 PFOA	2000 ppb
							13C8 PFOS	1912 ppb
							13C9 PFNA	2000 ppb
							13C2 PFDA	2000 ng/mL
							13C2 PFOA	2000 ng/mL
							13C3-PFBA	2000 ng/mL
PFC_STD_XMOD2_00016	09/10/22	06/10/22	Methanol, Lot ED663-US	10 mL	PFC_IN_00701	0.05 mL	d5-NETPFOSA	10 ppb
							13C3 HFPO-DA	10 ppb
							M2-8:2 FTS	9.58 ppb
							M2-6:2 FTS	9.5 ppb
							d3-NMePFOSA	10 ppb
							13C-6:2 FTCA	10 ppb
							13C-10:2 FTCA	10 ppb
							13C-8:2 FTCA	10 ppb
							d3-NMeFOSAA	10 ppb
							d5-NETFOSAA	10 ppb
							d7-N-MeFOSE-M	10 ppb
							d9-N-EtFOSE-M	10 ppb
							13C8 FOSA	10 ppb
							M2-4:2 FTS	9.34 ppb
							13C-6:2 FTUCA	10 ppb
					13C-8:2 FTUCA	10 ppb		
					13C-10:2 FTUCA	10 ppb		
					PFC_IN_00703	0.25 mL	PFECA G	0.5 ppb
							PPF Acid	0.5 ppb
							MTP	0.5 ppb
							PFMOAA	0.5 ppb
							R-EVE	0.5 ppb
							R-PSDA	0.5 ppb
							Hydrolyzed PSDA	0.5 ppb
							PFO2HxA	0.5 ppb
							NVHOS	0.5 ppb
							PFO3OA	0.5 ppb
							PFO4DA	0.5 ppb
							Hydro-EVE Acid	0.5 ppb
							EVE Acid	0.5 ppb
							R-PSDCA	0.5 ppb
							Hydro-PS Acid	0.5 ppb
					PS Acid	0.5 ppb		
TAF	0.5 ppb							
PMPA	0.5 ppb							
PEPA	0.5 ppb							
PFC_IN_00705	0.25 mL	Perfluorooctadecanoic acid	0.5 ppb					
		N-ethylperfluoro-1-octanesulfo namide	0.5 ppb					
		NMeFOSA	0.5 ppb					

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.479 ppb
							1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	0.482 ppb
							2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	0.5 ppb
							2-(N-methylperfluoro-1-octanesulfonamido) ethanol	0.5 ppb
							Perfluorododecanesulfonic acid (PFDoS)	0.484 ppb
							Perfluorohexadecanoic acid	0.5 ppb
							Perfluorooctanesulfonamide	0.5 ppb
							1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	0.467 ppb
							1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.474 ppb
							Perfluorobutanoic acid	0.5 ppb
							Perfluoropentanoic acid	0.5 ppb
							Perfluorodecanesulfonic acid	0.482 ppb
							Perfluoroheptanesulfonic acid	0.476 ppb
							Perfluorononanesulfonic acid	0.48 ppb
							Perfluoropentanesulfonic acid	0.469 ppb
							3:3 FTCA	0.5 ppb
							5:3 FTCA	0.5 ppb
							7:3 FTCA	0.5 ppb
							6:2 FTCA	0.5 ppb
							8:2 FTCA	0.5 ppb
							10:2 FTCA	0.5 ppb
							PFECA F	0.5 ppb
							PFECA A	0.5 ppb
							PFECA B	0.5 ppb
							PES	0.445 ppb
							PFECHS	0.461 ppb
							PFPrS	0.458 ppb
							6:2 FTUCA	0.5 ppb
							8:2 FTUCA	0.5 ppb
							10:2 FTUCA	0.5 ppb
							11Cl-PF30Uds	0.465 ppb
							9Cl-PF3ONS	0.465 ppb
							DONA	0.4725 ppb
							HFPODA	0.5 ppb
							NEtFOSAA	0.5 ppb
							NMeFOSAA	0.5 ppb
							Perfluorobutanesulfonic acid	0.4425 ppb
							Perfluorodecanoic acid	0.5 ppb
							Perfluorododecanoic acid	0.5 ppb
							Perfluoroheptanoic acid	0.5 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_01219	0.05 mL	Perfluorohexanesulfonic acid	0.456 ppb
							Perfluorohexanoic acid	0.5 ppb
							Perfluorononanoic acid	0.5 ppb
							Perfluorooctanesulfonic acid	0.46275 ppb
							Perfluorooctanoic acid	0.5 ppb
							Perfluorotetradecanoic acid	0.5 ppb
							Perfluorotridecanoic acid	0.5 ppb
							Perfluoroundecanoic acid	0.5 ppb
							13C2 PFTeDA	10 ppb
							13C2-PFDoDA	10 ppb
							13C3 PFBS	9.3 ppb
							13C3 PFHxS	9.46 ppb
							13C4 PFBA	10 ppb
							13C4 PFHpA	10 ppb
					13C5 PFHxA	10 ppb		
					13C5 PFPeA	10 ppb		
					13C6 PFDA	10 ppb		
					13C7 PFUnA	10 ppb		
					13C8 PFOA	10 ppb		
					13C8 PFOS	9.56 ppb		
13C9 PFNA	10 ppb							
PFC_ST_01249	0.025 mL	13C2 PFDA	5 ppb					
		13C2 PFOA	5 ppb					
		13C3-PFBA	5 ppb					
		13C4 PFOS	4.7825 ppb					
.PFC_IN_00701	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00981	0.2 mL	d5-NetPFOSA	2000 ppb
					PFC_ST_00984	0.2 mL	13C3 HFPO-DA	2000 ppb
					PFC_ST_00985	0.2 mL	M2-8:2 FTS	1916 ppb
					PFC_ST_00986	0.2 mL	M2-6:2 FTS	1900 ppb
					PFC_ST_01081	0.2 mL	d3-NMePFOSA	2000 ppb
					PFC_ST_01108	0.2 mL	13C-6:2 FTCA	2000 ppb
					PFC_ST_01109	0.2 mL	13C-10:2 FTCA	2000 ppb
					PFC_ST_01113	0.2 mL	13C-8:2 FTCA	2000 ppb
					PFC_ST_01215	0.2 mL	d3-NMeFOSAA	2000 ppb
					PFC_ST_01216	0.2 mL	d5-NETFOSAA	2000 ppb
					PFC_ST_01293	0.2 mL	d7-N-MeFOSE-M	2000 ppb
					PFC_ST_01295	0.2 mL	d9-N-EtFOSE-M	2000 ppb
					PFC_ST_01411	0.2 mL	13C8 FOSA	2000 ppb
					PFC_ST_01412	0.2 mL	M2-4:2 FTS	1868 ppb
					PFC_ST_01467	0.2 mL	13C-6:2 FTUCA	2000 ppb
					PFC_ST_01468	0.2 mL	13C-8:2 FTUCA	2000 ppb
					PFC_ST_01469	0.2 mL	13C-10:2 FTUCA	2000 ppb
..PFC_ST_00981	11/23/25	Wellington Laboratories, Lot dNetFOSA1120M			(Purchased Reagent)		d5-NETPFOSA	50000 ng/mL
..PFC ST 00984	05/13/24	Wellington Laboratories, Lot M3HFPODA0521			(Purchased Reagent)		13C3 HFPO-DA	50000 ng/mL
..PFC ST 00985	12/17/25	Wellington Laboratories, Lot M282FTS1220			(Purchased Reagent)		M2-8:2 FTS	47900 ng/mL
..PFC ST 00986	05/14/26	Wellington Laboratories, Lot M262FTS0521			(Purchased Reagent)		M2-6:2 FTS	47500 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..PFC_ST_01081	04/04/23		Wellington Laboratories, Lot dNMeFOSA0421M		(Purchased Reagent)		d3-NMePFOSA	50000 ng/mL
..PFC ST 01108	04/04/23		Wellington Laboratories, Lot MFHEA0421		(Purchased Reagent)		13C-6:2 FTCA	50000 ppb
..PFC ST 01109	04/04/23		Wellington Laboratories, Lot MFDEA0817		(Purchased Reagent)		13C-10:2 FTCA	50000 ppb
..PFC ST 01113	04/04/23		Wellington Laboratories, Lot MFOEA1020		(Purchased Reagent)		13C-8:2 FTCA	50000 ppb
..PFC_ST_01215	04/04/23		Wellington Laboratories, Lot d3NMeFOSAA0521		(Purchased Reagent)		d3-NMeFOSAA	50000 ng/mL
..PFC_ST_01216	04/04/23		Wellington Laboratories, Lot d5NEtFOSAA0921		(Purchased Reagent)		d5-NEtFOSAA	50000 ng/mL
..PFC_ST_01293	02/10/23		Wellington Laboratories, Lot d7NMeFOSE1220M		(Purchased Reagent)		d7-N-MeFOSE-M	50000 ng/mL
..PFC_ST_01295	02/10/23		Wellington Laboratories, Lot d9NEtFOSE1220M		(Purchased Reagent)		d9-N-EtFOSE-M	50000 ng/mL
..PFC ST 01411	10/12/26		Wellington Laboratories, Lot M8FOSA0921I		(Purchased Reagent)		13C8 FOSA	50000 ng/mL
..PFC ST 01412	10/13/26		Wellington Laboratories, Lot M242FTS01021		(Purchased Reagent)		M2-4:2 FTS	46700 ng/mL
..PFC ST 01467	03/22/23		Wellington Laboratories, Lot MFHUEA0322		(Purchased Reagent)		13C-6:2 FTUCA	50000 ppb
..PFC ST 01468	03/22/23		Wellington Laboratories, Lot MFOUEA1121		(Purchased Reagent)		13C-8:2 FTUCA	50000 ppb
..PFC ST 01469	03/22/23		Wellington Laboratories, Lot MFDUEA1221		(Purchased Reagent)		13C-10:2 FTUCA	50000 ppb
.PFC_IN_00703	10/13/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00702	0.05 mL	PFECA G	20 ppb
							PPF Acid	20 ppb
							MTP	20 ppb
							PFMOAA	20 ppb
							R-EVE	20 ppb
							R-PSDA	20 ppb
							Hydrolyzed PSDA	20 ppb
							PFO2HxA	20 ppb
							NVHOS	20 ppb
							PFO3OA	20 ppb
							PFO4DA	20 ppb
							Hydro-EVE Acid	20 ppb
							EVE Acid	20 ppb
							R-PSDCA	20 ppb
							Hydro-PS Acid	20 ppb
							PS Acid	20 ppb
							TAF	20 ppb
							PMPA	20 ppb
							PEPA	20 ppb
..PFC_IN_00702	10/13/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00698	1 mL	PFECA G	2000 ppb
							PPF Acid	2000 ppb
							MTP	2000 ppb
							PFMOAA	2000 ppb
							R-EVE	2000 ppb
							R-PSDA	2000 ppb
							Hydrolyzed PSDA	2000 ppb
							PFO2HxA	2000 ppb
							NVHOS	2000 ppb
							PFO3OA	2000 ppb
							PFO4DA	2000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hydro-EVE Acid	2000 ppb
							EVE Acid	2000 ppb
							R-PSDCA	2000 ppb
							Hydro-PS Acid	2000 ppb
							PS Acid	2000 ppb
							TAF	2000 ppb
							PMPA	2000 ppb
							PEPA	2000 ppb
...PFC_IN_00698	10/13/22	06/09/22	Methanol, Lot ED319-US	10 mL	PFC_ST_00199	0.1 mL	PFECA G	10000 ppb
					PFC_ST_00329	0.1 mL	PPF Acid	10000 ppb
					PFC_ST_00332	0.1 mL	MTP	10000 ppb
					PFC_ST_01117	0.1 mL	PFMOAA	10000 ppb
					PFC_ST_01118	0.1 mL	R-EVE	10000 ppb
					PFC_ST_01119	0.1 mL	R-PSDA	10000 ppb
					PFC_ST_01120	0.1 mL	Hydrolyzed PSDA	10000 ppb
					PFC_ST_01121	0.1 mL	PFO2HxA	10000 ppb
					PFC_ST_01122	0.1 mL	NVHOS	10000 ppb
					PFC_ST_01124	0.1 mL	PFO3OA	10000 ppb
					PFC_ST_01127	0.1 mL	PFO4DA	10000 ppb
					PFC_ST_01128	0.1 mL	Hydro-EVE Acid	10000 ppb
					PFC_ST_01129	0.1 mL	EVE Acid	10000 ppb
					PFC_ST_01130	0.1 mL	R-PSDCA	10000 ppb
					PFC_ST_01131	0.1 mL	Hydro-PS Acid	10000 ppb
					PFC_ST_01132	0.1 mL	PS Acid	10000 ppb
					PFC_ST_01133	0.1 mL	TAF	10000 ppb
					PFC_ST_01134	0.1 mL	PMPA	10000 ppb
					PFC_ST_01135	0.1 mL	PEPA	10000 ppb
....PFC_ST_00199	02/26/23		Chemours, Lot N/A			(Purchased Reagent)	PFECA G	1000000 ug/L
....PFC_ST_00329	02/26/23		Chemours, Lot N/A			(Purchased Reagent)	PPF Acid	1000000 ug/L
....PFC_ST_00332	02/26/23		Chemours, Lot N/A			(Purchased Reagent)	MTP	1000000 ug/L
....PFC_ST_01117	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PFMOAA	1000000 ug/L
....PFC_ST_01118	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	R-EVE	1000000 ug/L
....PFC_ST_01119	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	R-PSDA	1000000 ug/L
....PFC_ST_01120	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	Hydrolyzed PSDA	1000000 ug/L
....PFC_ST_01121	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PFO2HxA	1000000 ug/L
....PFC_ST_01122	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	NVHOS	1000000 ug/L
....PFC_ST_01124	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PFO3OA	1000000 ug/L
....PFC_ST_01127	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PFO4DA	1000000 ug/L
....PFC_ST_01128	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	Hydro-EVE Acid	1000000 ug/L
....PFC_ST_01129	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	EVE Acid	1000000 ug/L
....PFC_ST_01130	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	R-PSDCA	1000000 ug/L
....PFC_ST_01131	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	Hydro-PS Acid	1000000 ug/L
....PFC_ST_01132	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PS Acid	1000000 ug/L
....PFC_ST_01133	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	TAF	1000000 ug/L
....PFC_ST_01134	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PMPA	1000000 ug/L
....PFC_ST_01135	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PEPA	1000000 ug/L
.PFC_IN_00705	12/09/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00704	0.2 mL	Perfluorooctadecanoic acid	20 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-ethylperfluoro-1-octanesulfonamide	20 ng/mL
							NMeFOSA	20 ng/mL
							1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.16 ng/mL
							1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	19.28 ng/mL
							2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	20 ng/mL
							2-(N-methylperfluoro-1-octanesulfonamido) ethanol	20 ng/mL
							Perfluorododecanesulfonic acid (PFDoS)	19.36 ng/mL
							Perfluorohexadecanoic acid	20 ng/mL
							Perfluorooctanesulfonamide	20 ng/mL
							1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	18.68 ng/mL
							1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	18.96 ng/mL
							Perfluorobutanoic acid	20 ng/mL
							Perfluoropentanoic acid	20 ng/mL
							Perfluorodecanesulfonic acid	19.28 ng/mL
							Perfluoroheptanesulfonic acid	19.04 ng/mL
							Perfluorononanesulfonic acid	19.2 ng/mL
							Perfluoropentanesulfonic acid	18.76 ng/mL
							3:3 FTCA	20 ng/mL
							5:3 FTCA	20 ng/mL
							7:3 FTCA	20 ng/mL
							6:2 FTCA	20 ng/mL
							8:2 FTCA	20 ng/mL
							10:2 FTCA	20 ng/mL
							PFECA F	20 ng/mL
							PFECA A	20 ng/mL
							PFECA B	20 ng/mL
							PES	17.8 ng/mL
							PFECHS	18.44 ng/mL
							PFPrS	18.32 ng/mL
							6:2 FTUCA	20 ng/mL
							8:2 FTUCA	20 ng/mL
							10:2 FTUCA	20 ng/mL
							11Cl-PF30Uds	18.6 ng/mL
							9Cl-PF3ONS	18.6 ng/mL
							DONA	18.9 ng/mL
							HFPODA	20 ng/mL
							NETFOSAA	20 ng/mL
							NMeFOSAA	20 ng/mL
							Perfluorobutanesulfonic acid	17.7 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
							Perfluorodecanoic acid	20 ng/mL					
							Perfluorododecanoic acid	20 ng/mL					
							Perfluoroheptanoic acid	20 ng/mL					
							Perfluorohexanesulfonic acid	18.24 ng/mL					
							Perfluorohexanoic acid	20 ng/mL					
							Perfluorononanoic acid	20 ng/mL					
							Perfluorooctanesulfonic acid	18.51 ng/mL					
							Perfluorooctanoic acid	20 ng/mL					
							Perfluorotetradecanoic acid	20 ng/mL					
							Perfluorotridecanoic acid	20 ng/mL					
..PFC_IN_00704	12/09/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00699	1.25 mL	Perfluorooctadecanoic acid	500 ng/mL					
							N-ethylperfluoro-1-octanesulfonamide	500 ng/mL					
							NMeFOSA	500 ng/mL					
							1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	479 ng/mL					
							1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	482 ng/mL					
							2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	500 ng/mL					
							2-(N-methylperfluoro-1-octanesulfonamido) ethanol	500 ng/mL					
							Perfluorododecanesulfonic acid (PFDoS)	484 ng/mL					
							Perfluorohexadecanoic acid	500 ng/mL					
							Perfluorooctanesulfonamide	500 ng/mL					
							1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	467 ng/mL					
							1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	474 ng/mL					
							Perfluorobutanoic acid	500 ng/mL					
							Perfluoropentanoic acid	500 ng/mL					
							Perfluorodecanesulfonic acid	482 ng/mL					
							Perfluoroheptanesulfonic acid	476 ng/mL					
							Perfluorononanesulfonic acid	480 ng/mL					
							Perfluoropentanesulfonic acid	469 ng/mL					
					PFC_IN_00700						1.25 mL	3:3 FTCA	500 ng/mL
												5:3 FTCA	500 ng/mL
												7:3 FTCA	500 ng/mL
												6:2 FTCA	500 ng/mL
												8:2 FTCA	500 ng/mL
												10:2 FTCA	500 ng/mL
												PFECA F	500 ng/mL
												PFECA A	500 ng/mL
												PFECA B	500 ng/mL
PES	445 ng/mL												

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
						1.25 mL	PFECHS	461 ng/mL
							PFPrS	458 ng/mL
							6:2 FTUCA	500 ng/mL
							8:2 FTUCA	500 ng/mL
							10:2 FTUCA	500 ng/mL
							11Cl-PF30Uds	465 ng/mL
							9Cl-PF3ONS	465 ng/mL
							DONA	472.5 ng/mL
							HFPODA	500 ng/mL
							NETFOSAA	500 ng/mL
							NMeFOSAA	500 ng/mL
							Perfluorobutanesulfonic acid	442.5 ng/mL
							Perfluorodecanoic acid	500 ng/mL
							Perfluorododecanoic acid	500 ng/mL
							Perfluoroheptanoic acid	500 ng/mL
							Perfluorohexanesulfonic acid	456 ng/mL
							Perfluorohexanoic acid	500 ng/mL
Perfluorononanoic acid	500 ng/mL							
Perfluorooctanesulfonic acid	462.75 ng/mL							
Perfluorooctanoic acid	500 ng/mL							
Perfluorotetradecanoic acid	500 ng/mL							
Perfluorotridecanoic acid	500 ng/mL							
Perfluoroundecanoic acid	500 ng/mL							
...PFC_IN_00699	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00747	0.2 mL	Perfluorooctadecanoic acid	2000 ng/mL
					PFC_ST_00971	0.2 mL	N-ethylperfluoro-1-octanesulfonamide	2000 ng/mL
					PFC_ST_00972	0.2 mL	NMeFOSA	2000 ng/mL
					PFC_ST_00976	0.2 mL	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1916 ng/mL
					PFC_ST_00977	0.2 mL	1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	1928 ng/mL
					PFC_ST_01073	0.2 mL	2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	2000 ng/mL
					PFC_ST_01082	0.2 mL	2-(N-methylperfluoro-1-octanesulfonamido) ethanol	2000 ng/mL
					PFC_ST_01224	0.2 mL	Perfluorododecanesulfonic acid (PFDoS)	1936 ng/mL
					PFC_ST_01226	0.2 mL	Perfluorohexadecanoic acid	2000 ng/mL
					PFC_ST_01227	0.2 mL	Perfluorooctanesulfonamide	2000 ng/mL
					PFC_ST_01228	0.2 mL	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	1868 ng/mL
					PFC_ST_01229	0.2 mL	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1896 ng/mL
					PFC_ST_01232	0.2 mL	Perfluorobutanoic acid	2000 ng/mL
					PFC_ST_01233	0.2 mL	Perfluoropentanoic acid	2000 ng/mL
					PFC_ST_01234	0.2 mL	Perfluorodecanesulfonic acid	1928 ng/mL
					PFC_ST_01235	0.2 mL	Perfluoroheptanesulfonic acid	1904 ng/mL

REAGENT TRACEABILITY SUMMARY

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_01236	0.2 mL	Perfluorononanesulfonic acid	1920 ng/mL
					PFC_ST_01237	0.2 mL	Perfluoropentanesulfonic acid	1876 ng/mL
....PFC_ST_00747	11/13/25	Wellington Laboratories, Lot PFODA1020			(Purchased Reagent)		Perfluorooctadecanoic acid	50000 ng/mL
....PFC_ST_00971	11/23/25	Wellington Laboratories, Lot NETFOSA1120M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50000 ng/mL
....PFC_ST_00972	10/20/25	Wellington Laboratories, Lot NMeFOSA1020M			(Purchased Reagent)		NMeFOSA	50000 ng/mL
....PFC_ST_00976	12/01/25	Wellington Laboratories, Lot 82FTS1120			(Purchased Reagent)		1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	47900 ng/mL
....PFC_ST_00977	03/03/26	Wellington Laboratories, Lot 102FTS0221			(Purchased Reagent)		1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	48200 ng/mL
....PFC_ST_01073	06/02/26	Wellington Laboratories, Lot NETFOSE0521M			(Purchased Reagent)		2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
....PFC_ST_01082	06/02/26	Wellington Laboratories, Lot NMeFOSE0521M			(Purchased Reagent)		2-(N-methylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
....PFC_ST_01224	02/16/23	Wellington Laboratories, Lot LPFDoS0721			(Purchased Reagent)		Perfluorododecanesulfonic acid (PFDoS)	48400 ng/mL
....PFC_ST_01226	05/07/26	Wellington Laboratories, Lot PFHxDA0421			(Purchased Reagent)		Perfluorohexadecanoic acid	50000 ng/mL
....PFC_ST_01227	08/10/26	Wellington Laboratories, Lot FOSA0721I			(Purchased Reagent)		Perfluorooctanesulfonamide	50000 ng/mL
....PFC_ST_01228	10/04/26	Wellington Laboratories, Lot 42FTS0921			(Purchased Reagent)		1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	46700 ng/mL
....PFC_ST_01229	06/09/26	Wellington Laboratories, Lot 62FTS0521			(Purchased Reagent)		1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47400 ng/mL
....PFC_ST_01232	10/04/26	Wellington Laboratories, Lot PFBA1021			(Purchased Reagent)		Perfluorobutanoic acid	50000 ng/mL
....PFC_ST_01233	08/10/26	Wellington Laboratories, Lot PFPeA0721			(Purchased Reagent)		Perfluoropentanoic acid	50000 ng/mL
....PFC_ST_01234	08/19/26	Wellington Laboratories, Lot LPFDS0821			(Purchased Reagent)		Perfluorodecanesulfonic acid	48200 ng/mL
....PFC_ST_01235	07/09/26	Wellington Laboratories, Lot LPFHps0721			(Purchased Reagent)		Perfluoroheptanesulfonic acid	47600 ng/mL
....PFC_ST_01236	10/19/26	Wellington Laboratories, Lot LPFNS1021			(Purchased Reagent)		Perfluorononanesulfonic acid	48000 ng/mL
....PFC_ST_01237	07/12/26	Wellington Laboratories, Lot LPFPeS0721			(Purchased Reagent)		Perfluoropentanesulfonic acid	46900 ng/mL
...PFC_IN_00700	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_01094	0.2 mL	3:3 FTCA	2000 ppb
					PFC_ST_01095	0.2 mL	5:3 FTCA	2000 ppb
					PFC_ST_01096	0.2 mL	7:3 FTCA	2000 ppb
					PFC_ST_01097	0.2 mL	6:2 FTCA	2000 ppb
					PFC_ST_01098	0.2 mL	8:2 FTCA	2000 ppb
					PFC_ST_01099	0.2 mL	10:2 FTCA	2000 ppb
					PFC_ST_01103	0.2 mL	PFECA F	2000 ppb
					PFC_ST_01104	0.2 mL	PFECA A	2000 ppb
					PFC_ST_01105	0.2 mL	PFECA B	2000 ppb
					PFC_ST_01106	0.2 mL	PES	1780 ppb
					PFC_ST_01107	0.2 mL	PFECHS	1844 ppb
					PFC_ST_01223	0.2 mL	PFPrS	1832 ppb
					PFC_ST_01367	0.2 mL	6:2 FTUCA	2000 ppb
					PFC_ST_01368	0.2 mL	8:2 FTUCA	2000 ppb
					PFC_ST_01369	0.2 mL	10:2 FTUCA	2000 ppb
....PFC_ST_01094	11/12/25	Wellington Laboratories, Lot FPrPA1020			(Purchased Reagent)		3:3 FTCA	50000 ng/mL
....PFC_ST_01095	11/11/25	Wellington Laboratories, Lot FPePA1120			(Purchased Reagent)		5:3 FTCA	50000 ng/mL
....PFC_ST_01096	11/12/25	Wellington Laboratories, Lot FHpPA1020			(Purchased Reagent)		7:3 FTCA	50000 ng/mL
....PFC_ST_01097	03/08/24	Wellington Laboratories, Lot FHEA0321			(Purchased Reagent)		6:2 FTCA	50000 ng/mL

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
....PFC ST 01098	08/18/24		Wellington Laboratories, Lot FOEA0821		(Purchased Reagent)		8:2 FTCA	50000 ng/mL
....PFC ST 01099	07/07/23		Wellington Laboratories, Lot FDEA0720		(Purchased Reagent)		10:2 FTCA	50000 ng/mL
....PFC ST 01103	03/31/25		Wellington Laboratories, Lot PF40PeA0320		(Purchased Reagent)		PFECA F	50000 ng/mL
....PFC ST 01104	03/31/25		Wellington Laboratories, Lot PF50HxA0320		(Purchased Reagent)		PFECA A	50000 ng/mL
....PFC ST 01105	03/31/25		Wellington Laboratories, Lot 36OPFHpA0320		(Purchased Reagent)		PFECA B	50000 ng/mL
....PFC ST 01106	05/13/25		Wellington Laboratories, Lot PFEEESA0520		(Purchased Reagent)		PES	44500 ppb
....PFC ST 01107	04/06/26		Wellington Laboratoires, Lot PFECHS0421		(Purchased Reagent)		PFECHS	46100 ppb
....PFC ST 01223	07/12/26		Wellington Laboratories, Lot LPFPrS0721		(Purchased Reagent)		PFPrS	45800 ppb
....PFC ST 01367	09/03/23		Wellington Laboratories, Lot FHUEA0921		(Purchased Reagent)		6:2 FTUCA	50000 ng/mL
....PFC ST 01368	03/29/23		Wellington Laboratories, Lot FOUEA0321		(Purchased Reagent)		8:2 FTUCA	50000 ng/mL
....PFC ST 01369	03/29/23		Wellington Laboratories, Lot FDUEA1021		(Purchased Reagent)		10:2 FTUCA	50000 ng/mL
...PFC_ST_01549	06/01/24		Wellington Laboratories, Lot 537PDSR10521		(Purchased Reagent)		11Cl-PF30Uds	1860 ng/mL
							9Cl-PF3ONS	1860 ng/mL
							DONA	1890 ng/mL
							HFPODA	2000 ng/mL
							NETFOSAA	2000 ng/mL
							NMeFOSAA	2000 ng/mL
							Perfluorobutanesulfonic acid	1770 ng/mL
							Perfluorodecanoic acid	2000 ng/mL
							Perfluorododecanoic acid	2000 ng/mL
							Perfluoroheptanoic acid	2000 ng/mL
							Perfluorohexanesulfonic acid	1824 ng/mL
							Perfluorohexanoic acid	2000 ng/mL
							Perfluorononanoic acid	2000 ng/mL
							Perfluorooctanesulfonic acid	1851 ng/mL
							Perfluorooctanoic acid	2000 ng/mL
							Perfluorotetradecanoic acid	2000 ng/mL
							Perfluorotridecanoic acid	2000 ng/mL
							Perfluoroundecanoic acid	2000 ng/mL
.PFC_ST_01219	01/13/26		Wellington Laboratories, Lot MPFACCES0121		(Purchased Reagent)		13C2 PFTeDA	2000 ppb
							13C2-PFDoDA	2000 ppb
							13C3 PFBS	1860 ppb
							13C3 PFHxS	1892 ppb
							13C4 PFBA	2000 ppb
							13C4 PFHpA	2000 ppb
							13C5 PFHxA	2000 ppb
							13C5 PFPeA	2000 ppb
							13C6 PFDA	2000 ppb
							13C7 PFUnA	2000 ppb
							13C8 PFOA	2000 ppb
							13C8 PFOS	1912 ppb
							13C9 PFNA	2000 ppb
.PFC_ST_01249	04/26/26		Wellington Laboratories, Lot MPFACCIS0516		(Purchased Reagent)		13C2 PFDA	2000 ng/mL
							13C2 PFOA	2000 ng/mL
							13C3-PFBA	2000 ng/mL
							13C4 PFOS	1913 ng/mL
PFC_STD_XMOD3_00018	09/10/22	06/10/22	Methanol, Lot ED663-US	10 mL	PFC_IN_00701	0.05 mL	d5-NETPFOSA	10 ppb

REAGENT TRACEABILITY SUMMARY

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SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C3 HFPO-DA	10 ppb
							M2-8:2 FTS	9.58 ppb
							M2-6:2 FTS	9.5 ppb
							d3-NMeFOSA	10 ppb
							13C-6:2 FTCA	10 ppb
							13C-10:2 FTCA	10 ppb
							13C-8:2 FTCA	10 ppb
							d3-NMeFOSAA	10 ppb
							d5-NEtFOSAA	10 ppb
							d7-N-MeFOSE-M	10 ppb
							d9-N-EtFOSE-M	10 ppb
							13C8 FOSA	10 ppb
							M2-4:2 FTS	9.34 ppb
							13C-6:2 FTUCA	10 ppb
							13C-8:2 FTUCA	10 ppb
							13C-10:2 FTUCA	10 ppb
					PFC_IN_00703	1 mL	PFECA G	2 ppb
							PPF Acid	2 ppb
							MTP	2 ppb
							PFMOAA	2 ppb
							R-EVE	2 ppb
							R-PSDA	2 ppb
							Hydrolyzed PSDA	2 ppb
							PFO2HxA	2 ppb
							NVHOS	2 ppb
							PFO3OA	2 ppb
							PFO4DA	2 ppb
							Hydro-EVE Acid	2 ppb
							EVE Acid	2 ppb
							R-PSDCA	2 ppb
							Hydro-PS Acid	2 ppb
							PS Acid	2 ppb
							TAF	2 ppb
							PMPA	2 ppb
							PEPA	2 ppb
					PFC_IN_00705	1 mL	Perfluorooctadecanoic acid	2 ppb
							N-ethylperfluoro-1-octanesulfonamide	2 ppb
							NMeFOSA	2 ppb
							1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.916 ppb
							1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	1.928 ppb
							2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	2 ppb
							2-(N-methylperfluoro-1-octanesulfonamido) ethanol	2 ppb

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorododecanesulfonic acid (PFDoS)	1.936 ppb
							Perfluorohexadecanoic acid	2 ppb
							Perfluorooctanesulfonamide	2 ppb
							1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	1.868 ppb
							1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.896 ppb
							Perfluorobutanoic acid	2 ppb
							Perfluoropentanoic acid	2 ppb
							Perfluorodecanesulfonic acid	1.928 ppb
							Perfluoroheptanesulfonic acid	1.904 ppb
							Perfluorononanesulfonic acid	1.92 ppb
							Perfluoropentanesulfonic acid	1.876 ppb
							3:3 FTCA	2 ppb
							5:3 FTCA	2 ppb
							7:3 FTCA	2 ppb
							6:2 FTCA	2 ppb
							8:2 FTCA	2 ppb
							10:2 FTCA	2 ppb
							PFECA F	2 ppb
							PFECA A	2 ppb
							PFECA B	2 ppb
							PES	1.78 ppb
							PFECHS	1.844 ppb
							PFPrS	1.832 ppb
							6:2 FTUCA	2 ppb
							8:2 FTUCA	2 ppb
							10:2 FTUCA	2 ppb
							11Cl-PF3OUds	1.86 ppb
							9Cl-PF3ONS	1.86 ppb
							DONA	1.89 ppb
							HFPODA	2 ppb
							NEtFOSAA	2 ppb
							NMeFOSAA	2 ppb
							Perfluorobutanesulfonic acid	1.77 ppb
							Perfluorodecanoic acid	2 ppb
							Perfluorododecanoic acid	2 ppb
							Perfluoroheptanoic acid	2 ppb
							Perfluorohexanesulfonic acid	1.824 ppb
							Perfluorohexanoic acid	2 ppb
							Perfluorononanoic acid	2 ppb
							Perfluorooctanesulfonic acid	1.851 ppb
							Perfluorooctanoic acid	2 ppb
							Perfluorotetradecanoic acid	2 ppb
							Perfluorotridecanoic acid	2 ppb
							Perfluoroundecanoic acid	2 ppb
					PFC_ST_01219	0.05 mL	13C2 PFTeDA	10 ppb

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration	
					Reagent ID	Volume Added			
							13C2-PFDoDA	10 ppb	
							13C3 PFBS	9.3 ppb	
							13C3 PFHxS	9.46 ppb	
							13C4 PFBA	10 ppb	
							13C4 PFHpA	10 ppb	
							13C5 PFHxA	10 ppb	
							13C5 PFPeA	10 ppb	
							13C6 PFDA	10 ppb	
							13C7 PFUnA	10 ppb	
							13C8 PFOA	10 ppb	
							13C8 PFOS	9.56 ppb	
							13C9 PFNA	10 ppb	
					PFC_ST_01249	0.025 mL	13C2 PFDA	5 ppb	
							13C2 PFOA	5 ppb	
							13C3-PFBA	5 ppb	
							13C4 PFOS	4.7825 ppb	
.PFC_IN_00701	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00981	0.2 mL	d5-NETPFOSA	2000 ppb	
					PFC_ST_00984	0.2 mL	13C3 HFPO-DA	2000 ppb	
					PFC_ST_00985	0.2 mL	M2-8:2 FTS	1916 ppb	
					PFC_ST_00986	0.2 mL	M2-6:2 FTS	1900 ppb	
					PFC_ST_01081	0.2 mL	d3-NMePFOSA	2000 ppb	
					PFC_ST_01108	0.2 mL	13C-6:2 FTCA	2000 ppb	
					PFC_ST_01109	0.2 mL	13C-10:2 FTCA	2000 ppb	
					PFC_ST_01113	0.2 mL	13C-8:2 FTCA	2000 ppb	
					PFC_ST_01215	0.2 mL	d3-NMeFOSAA	2000 ppb	
					PFC_ST_01216	0.2 mL	d5-NetFOSAA	2000 ppb	
					PFC_ST_01293	0.2 mL	d7-N-MeFOSE-M	2000 ppb	
					PFC_ST_01295	0.2 mL	d9-N-EtFOSE-M	2000 ppb	
					PFC_ST_01411	0.2 mL	13C8 FOSA	2000 ppb	
					PFC_ST_01412	0.2 mL	M2-4:2 FTS	1868 ppb	
					PFC_ST_01467	0.2 mL	13C-6:2 FTUCA	2000 ppb	
					PFC_ST_01468	0.2 mL	13C-8:2 FTUCA	2000 ppb	
					PFC_ST_01469	0.2 mL	13C-10:2 FTUCA	2000 ppb	
..PFC_ST_00981	11/23/25		Wellington Laboratories, Lot dNetFOSA1120M				(Purchased Reagent)	d5-NETPFOSA	50000 ng/mL
..PFC ST 00984	05/13/24		Wellington Laboratories, Lot M3HFPODA0521				(Purchased Reagent)	13C3 HFPO-DA	50000 ng/mL
..PFC ST 00985	12/17/25		Wellington Laboratories, Lot M282FTS1220				(Purchased Reagent)	M2-8:2 FTS	47900 ng/mL
..PFC ST 00986	05/14/26		Wellington Laboratories, Lot M262FTS0521				(Purchased Reagent)	M2-6:2 FTS	47500 ng/mL
..PFC_ST_01081	04/04/23		Wellington Laboratories, Lot dNMeFOSA0421M				(Purchased Reagent)	d3-NMePFOSA	50000 ng/mL
..PFC ST 01108	04/04/23		Wellington Laboratories, Lot MFHEA0421				(Purchased Reagent)	13C-6:2 FTCA	50000 ppb
..PFC ST 01109	04/04/23		Wellington Laboratories, Lot MFDEA0817				(Purchased Reagent)	13C-10:2 FTCA	50000 ppb
..PFC ST 01113	04/04/23		Wellington Laboratories, Lot MFOEA1020				(Purchased Reagent)	13C-8:2 FTCA	50000 ppb
..PFC_ST_01215	04/04/23		Wellington Laboratories, Lot d3NMeFOSAA0521				(Purchased Reagent)	d3-NMeFOSAA	50000 ng/mL
..PFC_ST_01216	04/04/23		Wellington Laboratories, Lot d5NEtFOSAA0921				(Purchased Reagent)	d5-NEtFOSAA	50000 ng/mL

REAGENT TRACEABILITY SUMMARY

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..PFC_ST_01293	02/10/23		Wellington Laboratories, Lot d7NMeFOSE1220M		(Purchased Reagent)		d7-N-MeFOSE-M	50000 ng/mL
..PFC_ST_01295	02/10/23		Wellington Laboratories, Lot d9NEtFOSE1220M		(Purchased Reagent)		d9-N-EtFOSE-M	50000 ng/mL
..PFC ST 01411	10/12/26		Wellington Laboratories, Lot M8FOSA0921I		(Purchased Reagent)		13C8 FOSA	50000 ng/mL
..PFC ST 01412	10/13/26		Wellington Laboratories, Lot M242FTS01021		(Purchased Reagent)		M2-4:2 FTS	46700 ng/mL
..PFC ST 01467	03/22/23		Wellington Laboratories, Lot MFHUEA0322		(Purchased Reagent)		13C-6:2 FTUCA	50000 ppb
..PFC ST 01468	03/22/23		Wellington Laboratories, Lot MFOUEA1121		(Purchased Reagent)		13C-8:2 FTUCA	50000 ppb
..PFC ST 01469	03/22/23		Wellington Laboratories, Lot MFDUEA1221		(Purchased Reagent)		13C-10:2 FTUCA	50000 ppb
.PFC_IN_00703	10/13/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00702	0.05 mL	PFECA G	20 ppb
							PPF Acid	20 ppb
							MTP	20 ppb
							PFMOAA	20 ppb
							R-EVE	20 ppb
							R-PSDA	20 ppb
							Hydrolyzed PSDA	20 ppb
							PFO2HxA	20 ppb
							NVHOS	20 ppb
							PFO3OA	20 ppb
							PFO4DA	20 ppb
							Hydro-EVE Acid	20 ppb
							EVE Acid	20 ppb
							R-PSDCA	20 ppb
							Hydro-PS Acid	20 ppb
							PS Acid	20 ppb
							TAF	20 ppb
							PMPA	20 ppb
							PEPA	20 ppb
..PFC_IN_00702	10/13/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00698	1 mL	PFECA G	2000 ppb
							PPF Acid	2000 ppb
							MTP	2000 ppb
							PFMOAA	2000 ppb
							R-EVE	2000 ppb
							R-PSDA	2000 ppb
							Hydrolyzed PSDA	2000 ppb
							PFO2HxA	2000 ppb
							NVHOS	2000 ppb
							PFO3OA	2000 ppb
							PFO4DA	2000 ppb
							Hydro-EVE Acid	2000 ppb
							EVE Acid	2000 ppb
							R-PSDCA	2000 ppb
							Hydro-PS Acid	2000 ppb
							PS Acid	2000 ppb
							TAF	2000 ppb
							PMPA	2000 ppb
							PEPA	2000 ppb
...PFC_IN_00698	10/13/22	06/09/22	Methanol, Lot ED319-US	10 mL	PFC_ST_00199	0.1 mL	PFECA G	10000 ppb

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_00329	0.1 mL	PPF Acid	10000 ppb
					PFC_ST_00332	0.1 mL	MTP	10000 ppb
					PFC_ST_01117	0.1 mL	PFMOAA	10000 ppb
					PFC_ST_01118	0.1 mL	R-EVE	10000 ppb
					PFC_ST_01119	0.1 mL	R-PSDA	10000 ppb
					PFC_ST_01120	0.1 mL	Hydrolyzed PSDA	10000 ppb
					PFC_ST_01121	0.1 mL	PFO2HxA	10000 ppb
					PFC_ST_01122	0.1 mL	NVHOS	10000 ppb
					PFC_ST_01124	0.1 mL	PFO3OA	10000 ppb
					PFC_ST_01127	0.1 mL	PFO4DA	10000 ppb
					PFC_ST_01128	0.1 mL	Hydro-EVE Acid	10000 ppb
					PFC_ST_01129	0.1 mL	EVE Acid	10000 ppb
					PFC_ST_01130	0.1 mL	R-PSDCA	10000 ppb
					PFC_ST_01131	0.1 mL	Hydro-PS Acid	10000 ppb
					PFC_ST_01132	0.1 mL	PS Acid	10000 ppb
					PFC_ST_01133	0.1 mL	TAF	10000 ppb
					PFC_ST_01134	0.1 mL	PMPA	10000 ppb
					PFC_ST_01135	0.1 mL	PEPA	10000 ppb
....PFC_ST_00199	02/26/23		Chemours, Lot N/A		(Purchased Reagent)		PFECA G	1000000 ug/L
....PFC_ST_00329	02/26/23		Chemours, Lot N/A		(Purchased Reagent)		PPF Acid	1000000 ug/L
....PFC_ST_00332	02/26/23		Chemours, Lot N/A		(Purchased Reagent)		MTP	1000000 ug/L
....PFC_ST_01117	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFMOAA	1000000 ug/L
....PFC_ST_01118	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-EVE	1000000 ug/L
....PFC_ST_01119	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-PSDA	1000000 ug/L
....PFC_ST_01120	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydrolyzed PSDA	1000000 ug/L
....PFC_ST_01121	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFO2HxA	1000000 ug/L
....PFC_ST_01122	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		NVHOS	1000000 ug/L
....PFC_ST_01124	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFO3OA	1000000 ug/L
....PFC_ST_01127	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFO4DA	1000000 ug/L
....PFC_ST_01128	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydro-EVE Acid	1000000 ug/L
....PFC_ST_01129	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		EVE Acid	1000000 ug/L
....PFC_ST_01130	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-PSDCA	1000000 ug/L
....PFC_ST_01131	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydro-PS Acid	1000000 ug/L
....PFC_ST_01132	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PS Acid	1000000 ug/L
....PFC_ST_01133	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		TAF	1000000 ug/L
....PFC_ST_01134	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PMPA	1000000 ug/L
....PFC_ST_01135	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PEPA	1000000 ug/L
.PFC_IN_00705	12/09/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00704	0.2 mL	Perfluorooctadecanoic acid	20 ng/mL
							N-ethylperfluoro-1-octanesulfo namide	20 ng/mL
							NMeFOSA	20 ng/mL
							1H,1H,2H,2H-perfluorodecanesul fonic acid (8:2)	19.16 ng/mL
							1H,1H,2H,2H-perfluorododecanes ulfonic acid (10:2)	19.28 ng/mL
							2- (N-ethylperfluoro-1-octanesulf onamido) ethanol	20 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-(N-methylperfluoro-1-octanesulfonamido) ethanol	20 ng/mL
							Perfluorododecanesulfonic acid (PFDoS)	19.36 ng/mL
							Perfluorohexadecanoic acid	20 ng/mL
							Perfluorooctanesulfonamide	20 ng/mL
							1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	18.68 ng/mL
							1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	18.96 ng/mL
							Perfluorobutanoic acid	20 ng/mL
							Perfluoropentanoic acid	20 ng/mL
							Perfluorodecanesulfonic acid	19.28 ng/mL
							Perfluoroheptanesulfonic acid	19.04 ng/mL
							Perfluorononanesulfonic acid	19.2 ng/mL
							Perfluoropentanesulfonic acid	18.76 ng/mL
							3:3 FTCA	20 ng/mL
							5:3 FTCA	20 ng/mL
							7:3 FTCA	20 ng/mL
							6:2 FTCA	20 ng/mL
							8:2 FTCA	20 ng/mL
							10:2 FTCA	20 ng/mL
							PFECA F	20 ng/mL
							PFECA A	20 ng/mL
							PFECA B	20 ng/mL
							PES	17.8 ng/mL
							PFECHS	18.44 ng/mL
							PFPrS	18.32 ng/mL
							6:2 FTUCA	20 ng/mL
							8:2 FTUCA	20 ng/mL
							10:2 FTUCA	20 ng/mL
							11Cl-PF3OUds	18.6 ng/mL
							9Cl-PF3ONS	18.6 ng/mL
							DONA	18.9 ng/mL
							HFPODA	20 ng/mL
							NEtFOSAA	20 ng/mL
							NMeFOSAA	20 ng/mL
							Perfluorobutanesulfonic acid	17.7 ng/mL
							Perfluorodecanoic acid	20 ng/mL
							Perfluorododecanoic acid	20 ng/mL
							Perfluoroheptanoic acid	20 ng/mL
							Perfluorohexanesulfonic acid	18.24 ng/mL
							Perfluorohexanoic acid	20 ng/mL
							Perfluorononanoic acid	20 ng/mL
							Perfluorooctanesulfonic acid	18.51 ng/mL
							Perfluorooctanoic acid	20 ng/mL
							Perfluorotetradecanoic acid	20 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..PFC_IN_00704	12/09/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00699	1.25 mL	Perfluorotridecanoic acid	20 ng/mL
							Perfluoroundecanoic acid	20 ng/mL
							Perfluorooctadecanoic acid	500 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	500 ng/mL
							NMeFOSA	500 ng/mL
							1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	479 ng/mL
							1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	482 ng/mL
							2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	500 ng/mL
							2-(N-methylperfluoro-1-octanesulfonamido) ethanol	500 ng/mL
							Perfluorododecanesulfonic acid (PFDoS)	484 ng/mL
							Perfluorohexadecanoic acid	500 ng/mL
							Perfluorooctanesulfonamide	500 ng/mL
							1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	467 ng/mL
							1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	474 ng/mL
							Perfluorobutanoic acid	500 ng/mL
							Perfluoropentanoic acid	500 ng/mL
							Perfluorodecanesulfonic acid	482 ng/mL
							Perfluoroheptanesulfonic acid	476 ng/mL
							Perfluorononanesulfonic acid	480 ng/mL
							Perfluoropentanesulfonic acid	469 ng/mL
					PFC_IN_00700	1.25 mL	3:3 FTCA	500 ng/mL
							5:3 FTCA	500 ng/mL
							7:3 FTCA	500 ng/mL
							6:2 FTCA	500 ng/mL
							8:2 FTCA	500 ng/mL
							10:2 FTCA	500 ng/mL
							PFECA F	500 ng/mL
							PFECA A	500 ng/mL
							PFECA B	500 ng/mL
							PES	445 ng/mL
							PFECHS	461 ng/mL
							PFPrS	458 ng/mL
							6:2 FTUCA	500 ng/mL
		8:2 FTUCA	500 ng/mL					
		10:2 FTUCA	500 ng/mL					
PFC_ST_01549	1.25 mL	11Cl-PF3OUds	465 ng/mL					
		9Cl-PF3ONS	465 ng/mL					
		DONA	472.5 ng/mL					
		HFPODA	500 ng/mL					

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							NEtFOSAA	500 ng/mL
							NMeFOSAA	500 ng/mL
							Perfluorobutanesulfonic acid	442.5 ng/mL
							Perfluorodecanoic acid	500 ng/mL
							Perfluorododecanoic acid	500 ng/mL
							Perfluoroheptanoic acid	500 ng/mL
							Perfluorohexanesulfonic acid	456 ng/mL
							Perfluorohexanoic acid	500 ng/mL
							Perfluorononanoic acid	500 ng/mL
							Perfluorooctanesulfonic acid	462.75 ng/mL
							Perfluorooctanoic acid	500 ng/mL
							Perfluorotetradecanoic acid	500 ng/mL
							Perfluorotridecanoic acid	500 ng/mL
							Perfluoroundecanoic acid	500 ng/mL
...PFC_IN_00699	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00747	0.2 mL	Perfluorooctadecanoic acid	2000 ng/mL
					PFC_ST_00971	0.2 mL	N-ethylperfluoro-1-octanesulfo namide	2000 ng/mL
					PFC_ST_00972	0.2 mL	NMeFOSA	2000 ng/mL
					PFC_ST_00976	0.2 mL	1H,1H,2H,2H-perfluorodecanesul fonic acid (8:2)	1916 ng/mL
					PFC_ST_00977	0.2 mL	1H,1H,2H,2H-perfluorododecanes ulfonic acid (10:2)	1928 ng/mL
					PFC_ST_01073	0.2 mL	2- (N-ethylperfluoro-1-octanesulf onamido) ethanol	2000 ng/mL
					PFC_ST_01082	0.2 mL	2- (N-methylperfluoro-1-octanesul fonamido) ethanol	2000 ng/mL
					PFC_ST_01224	0.2 mL	Perfluorododecanesulfonic acid (PFDoS)	1936 ng/mL
					PFC_ST_01226	0.2 mL	Perfluorohexadecanoic acid	2000 ng/mL
					PFC_ST_01227	0.2 mL	Perfluorooctanesulfonamide	2000 ng/mL
					PFC_ST_01228	0.2 mL	1H,1H,2H,2H-perfluorohexanesul fonic acid (4:2)	1868 ng/mL
					PFC_ST_01229	0.2 mL	1H,1H,2H,2H-perfluorooctanesul fonic acid (6:2)	1896 ng/mL
					PFC_ST_01232	0.2 mL	Perfluorobutanoic acid	2000 ng/mL
					PFC_ST_01233	0.2 mL	Perfluoropentanoic acid	2000 ng/mL
					PFC_ST_01234	0.2 mL	Perfluorodecanesulfonic acid	1928 ng/mL
					PFC_ST_01235	0.2 mL	Perfluoroheptanesulfonic acid	1904 ng/mL
					PFC_ST_01236	0.2 mL	Perfluorononanesulfonic acid	1920 ng/mL
					PFC_ST_01237	0.2 mL	Perfluoropentanesulfonic acid	1876 ng/mL
....PFC_ST_00747	11/13/25		Wellington Laboratories, Lot PFODA1020				(Purchased Reagent) Perfluorooctadecanoic acid	50000 ng/mL
....PFC_ST_00971	11/23/25		Wellington Laboratories, Lot NEtFOSA1120M				(Purchased Reagent) N-ethylperfluoro-1-octanesulfo namide	50000 ng/mL
....PFC_ST_00972	10/20/25		Wellington Laboratories, Lot NMeFOSA1020M				(Purchased Reagent) NMeFOSA	50000 ng/mL
....PFC_ST_00976	12/01/25		Wellington Laboratories, Lot 82FTS1120				(Purchased Reagent) 1H,1H,2H,2H-perfluorodecanesul fonic acid (8:2)	47900 ng/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
....PFC_ST_00977	03/03/26		Wellington Laboratories, Lot 102FTS0221		(Purchased Reagent)		1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	48200 ng/mL
....PFC_ST_01073	06/02/26		Wellington Laboratories, Lot NETFOSE0521M		(Purchased Reagent)		2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
....PFC_ST_01082	06/02/26		Wellington Laboratories, Lot NMEFOSE0521M		(Purchased Reagent)		2-(N-methylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
....PFC_ST_01224	02/16/23		Wellington Laboratories, Lot LPFDoS0721		(Purchased Reagent)		Perfluorododecanesulfonic acid (PFDoS)	48400 ng/mL
....PFC ST 01226	05/07/26		Wellington Laboratories, Lot PFHxDA0421		(Purchased Reagent)		Perfluorohexadecanoic acid	50000 ng/mL
....PFC ST 01227	08/10/26		Wellington Laboratories, Lot FOSA0721I		(Purchased Reagent)		Perfluorooctanesulfonamide	50000 ng/mL
....PFC_ST_01228	10/04/26		Wellington Laboratories, Lot 42FTS0921		(Purchased Reagent)		1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	46700 ng/mL
....PFC_ST_01229	06/09/26		Wellington Laboratories, Lot 62FTS0521		(Purchased Reagent)		1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47400 ng/mL
....PFC ST 01232	10/04/26		Wellington Laboratories, Lot PFBA1021		(Purchased Reagent)		Perfluorobutanoic acid	50000 ng/mL
....PFC ST 01233	08/10/26		Wellington Laboratories, Lot PFPeA0721		(Purchased Reagent)		Perfluoropentanoic acid	50000 ng/mL
....PFC ST 01234	08/19/26		Wellington Laboratories, Lot LPFDS0821		(Purchased Reagent)		Perfluorododecanesulfonic acid	48200 ng/mL
....PFC ST 01235	07/09/26		Wellington Laboratories, Lot LPFHpS0721		(Purchased Reagent)		Perfluoroheptanesulfonic acid	47600 ng/mL
....PFC ST 01236	10/19/26		Wellington Laboratories, Lot LPFNS1021		(Purchased Reagent)		Perfluorononanesulfonic acid	48000 ng/mL
....PFC ST 01237	07/12/26		Wellington Laboratories, Lot LPFPeS0721		(Purchased Reagent)		Perfluoropentanesulfonic acid	46900 ng/mL
...PFC_IN_00700	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC ST 01094	0.2 mL	3:3 FTCA	2000 ppb
					PFC ST 01095	0.2 mL	5:3 FTCA	2000 ppb
					PFC ST 01096	0.2 mL	7:3 FTCA	2000 ppb
					PFC ST 01097	0.2 mL	6:2 FTCA	2000 ppb
					PFC ST 01098	0.2 mL	8:2 FTCA	2000 ppb
					PFC ST 01099	0.2 mL	10:2 FTCA	2000 ppb
					PFC ST 01103	0.2 mL	PFECA F	2000 ppb
					PFC ST 01104	0.2 mL	PFECA A	2000 ppb
					PFC ST 01105	0.2 mL	PFECA B	2000 ppb
					PFC ST 01106	0.2 mL	PES	1780 ppb
					PFC ST 01107	0.2 mL	PFECHS	1844 ppb
					PFC ST 01223	0.2 mL	PFPrS	1832 ppb
					PFC ST 01367	0.2 mL	6:2 FTUCA	2000 ppb
					PFC ST 01368	0.2 mL	8:2 FTUCA	2000 ppb
					PFC ST 01369	0.2 mL	10:2 FTUCA	2000 ppb
....PFC ST 01094	11/12/25		Wellington Laboratories, Lot FPrPA1020		(Purchased Reagent)		3:3 FTCA	50000 ng/mL
....PFC ST 01095	11/11/25		Wellington Laboratories, Lot FPePA1120		(Purchased Reagent)		5:3 FTCA	50000 ng/mL
....PFC ST 01096	11/12/25		Wellington Laboratories, Lot FHpPA1020		(Purchased Reagent)		7:3 FTCA	50000 ng/mL
....PFC ST 01097	03/08/24		Wellington Laboratories, Lot FHEA0321		(Purchased Reagent)		6:2 FTCA	50000 ng/mL
....PFC ST 01098	08/18/24		Wellington Laboratories, Lot FOEA0821		(Purchased Reagent)		8:2 FTCA	50000 ng/mL
....PFC ST 01099	07/07/23		Wellington Laboratories, Lot FDEA0720		(Purchased Reagent)		10:2 FTCA	50000 ng/mL
....PFC ST 01103	03/31/25		Wellington Laboratories, Lot PF40PeA0320		(Purchased Reagent)		PFECA F	50000 ng/mL
....PFC ST 01104	03/31/25		Wellington Laboratories, Lot PF50HxA0320		(Purchased Reagent)		PFECA A	50000 ng/mL
....PFC ST 01105	03/31/25		Wellington Laboratories, Lot 36OPFHpA0320		(Purchased Reagent)		PFECA B	50000 ng/mL
....PFC ST 01106	05/13/25		Wellington Laboratories, Lot PFEESA0520		(Purchased Reagent)		PES	44500 ppb
....PFC ST 01107	04/06/26		Wellington Laboratoires, Lot PFECHS0421		(Purchased Reagent)		PFECHS	46100 ppb
....PFC ST 01223	07/12/26		Wellington Laboratories, Lot LPFPrS0721		(Purchased Reagent)		PFPrS	45800 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
....PFC_ST_01367	09/03/23		Wellington Laboratories, Lot FHUEA0921		(Purchased Reagent)		6:2 FTUCA	50000 ng/mL
....PFC_ST_01368	03/29/23		Wellington Laboratories, Lot FOUEA0321		(Purchased Reagent)		8:2 FTUCA	50000 ng/mL
....PFC_ST_01369	03/29/23		Wellington Laboratories, Lot FDUEA1021		(Purchased Reagent)		10:2 FTUCA	50000 ng/mL
...PFC_ST_01549	06/01/24		Wellington Laboratories, Lot 537PDSR10521		(Purchased Reagent)		11Cl-PF3OUdS	1860 ng/mL
							9Cl-PF3ONS	1860 ng/mL
							DONA	1890 ng/mL
							HFPODA	2000 ng/mL
							NETFOSAA	2000 ng/mL
							NMeFOSAA	2000 ng/mL
							Perfluorobutanesulfonic acid	1770 ng/mL
							Perfluorodecanoic acid	2000 ng/mL
							Perfluorododecanoic acid	2000 ng/mL
							Perfluoroheptanoic acid	2000 ng/mL
							Perfluorohexanesulfonic acid	1824 ng/mL
							Perfluorohexanoic acid	2000 ng/mL
							Perfluorononanoic acid	2000 ng/mL
							Perfluorooctanesulfonic acid	1851 ng/mL
							Perfluorooctanoic acid	2000 ng/mL
							Perfluorotetradecanoic acid	2000 ng/mL
							Perfluorotridecanoic acid	2000 ng/mL
							Perfluoroundecanoic acid	2000 ng/mL
.PFC_ST_01219	01/13/26		Wellington Laboratories, Lot MPFACCES0121		(Purchased Reagent)		13C2 PFTeDA	2000 ppb
							13C2-PFDoDA	2000 ppb
							13C3 PFBS	1860 ppb
							13C3 PFHxS	1892 ppb
							13C4 PFBA	2000 ppb
							13C4 PFHpA	2000 ppb
							13C5 PFHxA	2000 ppb
							13C5 PFPeA	2000 ppb
							13C6 PFDA	2000 ppb
							13C7 PFUnA	2000 ppb
							13C8 PFOA	2000 ppb
							13C8 PFOS	1912 ppb
							13C9 PFNA	2000 ppb
.PFC_ST_01249	04/26/26		Wellington Laboratories, Lot MPFACCIS0516		(Purchased Reagent)		13C2 PFDA	2000 ng/mL
							13C2 PFOA	2000 ng/mL
							13C3-PFBA	2000 ng/mL
							13C4 PFOS	1913 ng/mL
PFC_STD_XMOD4_00018	09/10/22	06/10/22	Methanol, Lot ED663-US	10 mL	PFC_IN_00699	0.04 mL	Perfluorooctadecanoic acid	8 ppb
							N-ethylperfluoro-1-octanesulfonamide	8 ppb
							NMeFOSA	8 ppb
							1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	7.664 ppb
							1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	7.712 ppb

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	8 ppb
							2-(N-methylperfluoro-1-octanesulfonamido) ethanol	8 ppb
							Perfluorododecanesulfonic acid (PFDoS)	7.744 ppb
							Perfluorohexadecanoic acid	8 ppb
							Perfluorooctanesulfonamide	8 ppb
							1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	7.472 ppb
							1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	7.584 ppb
							Perfluorobutanoic acid	8 ppb
							Perfluoropentanoic acid	8 ppb
							Perfluorodecanesulfonic acid	7.712 ppb
							Perfluoroheptanesulfonic acid	7.616 ppb
							Perfluorononanesulfonic acid	7.68 ppb
							Perfluoropentanesulfonic acid	7.504 ppb
					PFC_IN_00700	0.04 mL	3:3 FTCA	8 ppb
							5:3 FTCA	8 ppb
							7:3 FTCA	8 ppb
							6:2 FTCA	8 ppb
							8:2 FTCA	8 ppb
							10:2 FTCA	8 ppb
							PFECA F	8 ppb
							PFECA A	8 ppb
							PFECA B	8 ppb
							PES	7.12 ppb
							PFECHS	7.376 ppb
							PFPPrS	7.328 ppb
							6:2 FTUCA	8 ppb
							8:2 FTUCA	8 ppb
							10:2 FTUCA	8 ppb
					PFC_IN_00701	0.05 mL	d5-NetPFOSA	10 ppb
							13C3 HFPO-DA	10 ppb
							M2-8:2 FTS	9.58 ppb
							M2-6:2 FTS	9.5 ppb
							d3-NMePFOSA	10 ppb
							13C-6:2 FTCA	10 ppb
							13C-10:2 FTCA	10 ppb
							13C-8:2 FTCA	10 ppb
							d3-NMeFOSAA	10 ppb
							d5-NetFOSAA	10 ppb
							d7-N-MeFOSE-M	10 ppb
							d9-N-EtFOSE-M	10 ppb
							13C8 FOSA	10 ppb
							M2-4:2 FTS	9.34 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C-6:2 FTUCA	10 ppb
							13C-8:2 FTUCA	10 ppb
							13C-10:2 FTUCA	10 ppb
					PFC_IN_00702	0.04 mL	PFECA G	8 ppb
							PPF Acid	8 ppb
							MTP	8 ppb
							PFMOAA	8 ppb
							R-EVE	8 ppb
							R-PSDA	8 ppb
							Hydrolyzed PSDA	8 ppb
							PFO2HxA	8 ppb
							NVHOS	8 ppb
							PFO3OA	8 ppb
							PFO4DA	8 ppb
							Hydro-EVE Acid	8 ppb
							EVE Acid	8 ppb
							R-PSDCA	8 ppb
							Hydro-PS Acid	8 ppb
							PS Acid	8 ppb
							TAF	8 ppb
							PMPA	8 ppb
							PEPA	8 ppb
					PFC_ST_01219	0.05 mL	13C2 PFTeDA	10 ppb
							13C2-PFDoDA	10 ppb
							13C3 PFBS	9.3 ppb
							13C3 PFHxS	9.46 ppb
							13C4 PFBA	10 ppb
							13C4 PFHpA	10 ppb
							13C5 PFHxA	10 ppb
							13C5 PFPeA	10 ppb
							13C6 PFDA	10 ppb
							13C7 PFUnA	10 ppb
							13C8 PFOA	10 ppb
							13C8 PFOS	9.56 ppb
							13C9 PFNA	10 ppb
					PFC_ST_01249	0.025 mL	13C2 PFDA	5 ppb
							13C2 PFOA	5 ppb
							13C3-PFBA	5 ppb
							13C4 PFOS	4.7825 ppb
					PFC_ST_01549	0.04 mL	11C1-PF3OUds	7.44 ppb
							9C1-PF3ONS	7.44 ppb
							DONA	7.56 ppb
							HFPODA	8 ppb
							NETFOSAA	8 ppb
							NMeFOSAA	8 ppb
							Perfluorobutanesulfonic acid	7.08 ppb
							Perfluorodecanoic acid	8 ppb
							Perfluorododecanoic acid	8 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluoroheptanoic acid	8 ppb
							Perfluorohexanesulfonic acid	7.296 ppb
							Perfluorohexanoic acid	8 ppb
							Perfluorononanoic acid	8 ppb
							Perfluorooctanesulfonic acid	7.404 ppb
							Perfluorooctanoic acid	8 ppb
							Perfluorotetradecanoic acid	8 ppb
							Perfluorotridecanoic acid	8 ppb
							Perfluoroundecanoic acid	8 ppb
.PFC_IN_00699	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00747	0.2 mL	Perfluorooctadecanoic acid	2000 ng/mL
					PFC_ST_00971	0.2 mL	N-ethylperfluoro-1-octanesulfo namide	2000 ng/mL
					PFC_ST_00972	0.2 mL	NMeFOSA	2000 ng/mL
					PFC_ST_00976	0.2 mL	1H,1H,2H,2H-perfluorodecanesul fonic acid (8:2)	1916 ng/mL
					PFC_ST_00977	0.2 mL	1H,1H,2H,2H-perfluorododecanes ulfonic acid (10:2)	1928 ng/mL
					PFC_ST_01073	0.2 mL	2- (N-ethylperfluoro-1-octanesulf onamido) ethanol	2000 ng/mL
					PFC_ST_01082	0.2 mL	2- (N-methylperfluoro-1-octanesul fonamido) ethanol	2000 ng/mL
					PFC_ST_01224	0.2 mL	Perfluorododecanesulfonic acid (PFDoS)	1936 ng/mL
					PFC_ST_01226	0.2 mL	Perfluorohexadecanoic acid	2000 ng/mL
					PFC_ST_01227	0.2 mL	Perfluorooctanesulfonamide	2000 ng/mL
					PFC_ST_01228	0.2 mL	1H,1H,2H,2H-perfluorohexanesul fonic acid (4:2)	1868 ng/mL
					PFC_ST_01229	0.2 mL	1H,1H,2H,2H-perfluorooctanesul fonic acid (6:2)	1896 ng/mL
					PFC_ST_01232	0.2 mL	Perfluorobutanoic acid	2000 ng/mL
					PFC_ST_01233	0.2 mL	Perfluoropentanoic acid	2000 ng/mL
					PFC_ST_01234	0.2 mL	Perfluorodecanesulfonic acid	1928 ng/mL
					PFC_ST_01235	0.2 mL	Perfluoroheptanesulfonic acid	1904 ng/mL
					PFC_ST_01236	0.2 mL	Perfluorononanesulfonic acid	1920 ng/mL
					PFC_ST_01237	0.2 mL	Perfluoropentanesulfonic acid	1876 ng/mL
..PFC_ST_00747	11/13/25	Wellington Laboratories, Lot PFODA1020			(Purchased Reagent)		Perfluorooctadecanoic acid	50000 ng/mL
..PFC_ST_00971	11/23/25	Wellington Laboratories, Lot NETFOSA1120M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfo namide	50000 ng/mL
..PFC_ST_00972	10/20/25	Wellington Laboratories, Lot NMeFOSA1020M			(Purchased Reagent)		NMeFOSA	50000 ng/mL
..PFC_ST_00976	12/01/25	Wellington Laboratories, Lot 82FTS1120			(Purchased Reagent)		1H,1H,2H,2H-perfluorodecanesul fonic acid (8:2)	47900 ng/mL
..PFC_ST_00977	03/03/26	Wellington Laboratories, Lot 102FTS0221			(Purchased Reagent)		1H,1H,2H,2H-perfluorododecanes ulfonic acid (10:2)	48200 ng/mL
..PFC_ST_01073	06/02/26	Wellington Laboratories, Lot NETFOSE0521M			(Purchased Reagent)		2- (N-ethylperfluoro-1-octanesulf onamido) ethanol	50000 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..PFC_ST_01082	06/02/26		Wellington Laboratories, Lot NMeFOSE0521M		(Purchased Reagent)		2-(N-methylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
..PFC_ST_01224	02/16/23		Wellington Laboratories, Lot LPFDoS0721		(Purchased Reagent)		Perfluorododecanesulfonic acid (PFDoS)	48400 ng/mL
..PFC ST 01226	05/07/26		Wellington Laboratories, Lot PFHxDA0421		(Purchased Reagent)		Perfluorohexadecanoic acid	50000 ng/mL
..PFC ST 01227	08/10/26		Wellington Laboratories, Lot FOSA0721I		(Purchased Reagent)		Perfluorooctanesulfonamide	50000 ng/mL
..PFC_ST_01228	10/04/26		Wellington Laboratories, Lot 42FTS0921		(Purchased Reagent)		1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	46700 ng/mL
..PFC_ST_01229	06/09/26		Wellington Laboratories, Lot 62FTS0521		(Purchased Reagent)		1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47400 ng/mL
..PFC ST 01232	10/04/26		Wellington Laboratories, Lot PFBA1021		(Purchased Reagent)		Perfluorobutanoic acid	50000 ng/mL
..PFC ST 01233	08/10/26		Wellington Laboratories, Lot PFPeA0721		(Purchased Reagent)		Perfluoropentanoic acid	50000 ng/mL
..PFC ST 01234	08/19/26		Wellington Laboratories, Lot LPFDS0821		(Purchased Reagent)		Perfluorodecanesulfonic acid	48200 ng/mL
..PFC ST 01235	07/09/26		Wellington Laboratories, Lot LPFHpS0721		(Purchased Reagent)		Perfluoroheptanesulfonic acid	47600 ng/mL
..PFC ST 01236	10/19/26		Wellington Laboratories, Lot LPFNS1021		(Purchased Reagent)		Perfluorononanesulfonic acid	48000 ng/mL
..PFC ST 01237	07/12/26		Wellington Laboratories, Lot LPFPeS0721		(Purchased Reagent)		Perfluoropentanesulfonic acid	46900 ng/mL
.PFC_IN_00700	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_01094	0.2 mL	3:3 FTCA	2000 ppb
					PFC_ST_01095	0.2 mL	5:3 FTCA	2000 ppb
					PFC_ST_01096	0.2 mL	7:3 FTCA	2000 ppb
					PFC_ST_01097	0.2 mL	6:2 FTCA	2000 ppb
					PFC_ST_01098	0.2 mL	8:2 FTCA	2000 ppb
					PFC_ST_01099	0.2 mL	10:2 FTCA	2000 ppb
					PFC_ST_01103	0.2 mL	PFECA F	2000 ppb
					PFC_ST_01104	0.2 mL	PFECA A	2000 ppb
					PFC_ST_01105	0.2 mL	PFECA B	2000 ppb
					PFC_ST_01106	0.2 mL	PES	1780 ppb
					PFC_ST_01107	0.2 mL	PFECHS	1844 ppb
					PFC_ST_01223	0.2 mL	PFPrS	1832 ppb
					PFC_ST_01367	0.2 mL	6:2 FTUCA	2000 ppb
					PFC_ST_01368	0.2 mL	8:2 FTUCA	2000 ppb
					PFC_ST_01369	0.2 mL	10:2 FTUCA	2000 ppb
..PFC ST 01094	11/12/25		Wellington Laboratories, Lot FFrPA1020		(Purchased Reagent)		3:3 FTCA	50000 ng/mL
..PFC ST 01095	11/11/25		Wellington Laboratories, Lot FPePA1120		(Purchased Reagent)		5:3 FTCA	50000 ng/mL
..PFC ST 01096	11/12/25		Wellington Laboratories, Lot FHpPA1020		(Purchased Reagent)		7:3 FTCA	50000 ng/mL
..PFC ST 01097	03/08/24		Wellington Laboratories, Lot FHEA0321		(Purchased Reagent)		6:2 FTCA	50000 ng/mL
..PFC ST 01098	08/18/24		Wellington Laboratories, Lot FOEA0821		(Purchased Reagent)		8:2 FTCA	50000 ng/mL
..PFC ST 01099	07/07/23		Wellington Laboratories, Lot FDEA0720		(Purchased Reagent)		10:2 FTCA	50000 ng/mL
..PFC ST 01103	03/31/25		Wellington Laboratories, Lot PF40PeA0320		(Purchased Reagent)		PFECA F	50000 ng/mL
..PFC ST 01104	03/31/25		Wellington Laboratories, Lot PF5OHxA0320		(Purchased Reagent)		PFECA A	50000 ng/mL
..PFC ST 01105	03/31/25		Wellington Laboratories, Lot 36OPFHpA0320		(Purchased Reagent)		PFECA B	50000 ng/mL
..PFC ST 01106	05/13/25		Wellington Laboratories, Lot PFEESA0520		(Purchased Reagent)		PES	44500 ppb
..PFC ST 01107	04/06/26		Wellington Laboratoires, Lot PFECHS0421		(Purchased Reagent)		PFECHS	46100 ppb
..PFC ST 01223	07/12/26		Wellington Laboratories, Lot LPFPrS0721		(Purchased Reagent)		PFPrS	45800 ppb
..PFC ST 01367	09/03/23		Wellington Laboratories, Lot FHUEA0921		(Purchased Reagent)		6:2 FTUCA	50000 ng/mL
..PFC ST 01368	03/29/23		Wellington Laboratories, Lot FOUEA0321		(Purchased Reagent)		8:2 FTUCA	50000 ng/mL
..PFC ST 01369	03/29/23		Wellington Laboratories, Lot FDUEA1021		(Purchased Reagent)		10:2 FTUCA	50000 ng/mL
.PFC_IN_00701	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00981	0.2 mL	d5-NETPFOSA	2000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_00984	0.2 mL	13C3 HFPO-DA	2000 ppb
					PFC_ST_00985	0.2 mL	M2-8:2 FTS	1916 ppb
					PFC_ST_00986	0.2 mL	M2-6:2 FTS	1900 ppb
					PFC_ST_01081	0.2 mL	d3-NMePFOSA	2000 ppb
					PFC_ST_01108	0.2 mL	13C-6:2 FTCA	2000 ppb
					PFC_ST_01109	0.2 mL	13C-10:2 FTCA	2000 ppb
					PFC_ST_01113	0.2 mL	13C-8:2 FTCA	2000 ppb
					PFC_ST_01215	0.2 mL	d3-NMeFOSAA	2000 ppb
					PFC_ST_01216	0.2 mL	d5-NETFOSAA	2000 ppb
					PFC_ST_01293	0.2 mL	d7-N-MeFOSE-M	2000 ppb
					PFC_ST_01295	0.2 mL	d9-N-EtFOSE-M	2000 ppb
					PFC_ST_01411	0.2 mL	13C8 FOSA	2000 ppb
					PFC_ST_01412	0.2 mL	M2-4:2 FTS	1868 ppb
					PFC_ST_01467	0.2 mL	13C-6:2 FTUCA	2000 ppb
					PFC_ST_01468	0.2 mL	13C-8:2 FTUCA	2000 ppb
					PFC_ST_01469	0.2 mL	13C-10:2 FTUCA	2000 ppb
..PFC_ST_00981	11/23/25		Wellington Laboratories, Lot dNetFOSA1120M		(Purchased Reagent)		d5-NETPFOSA	50000 ng/mL
..PFC ST 00984	05/13/24		Wellington Laboratories, Lot M3HFPODA0521		(Purchased Reagent)		13C3 HFPO-DA	50000 ng/mL
..PFC ST 00985	12/17/25		Wellington Laboratories, Lot M282FTS1220		(Purchased Reagent)		M2-8:2 FTS	47900 ng/mL
..PFC ST 00986	05/14/26		Wellington Laboratories, Lot M262FTS0521		(Purchased Reagent)		M2-6:2 FTS	47500 ng/mL
..PFC_ST_01081	04/04/23		Wellington Laboratories, Lot dNMeFOSA0421M		(Purchased Reagent)		d3-NMePFOSA	50000 ng/mL
..PFC ST 01108	04/04/23		Wellington Laboratories, Lot MFHEA0421		(Purchased Reagent)		13C-6:2 FTCA	50000 ppb
..PFC ST 01109	04/04/23		Wellington Laboratories, Lot MFDEA0817		(Purchased Reagent)		13C-10:2 FTCA	50000 ppb
..PFC ST 01113	04/04/23		Wellington Laboratories, Lot MFOEA1020		(Purchased Reagent)		13C-8:2 FTCA	50000 ppb
..PFC_ST_01215	04/04/23		Wellington Laboratories, Lot d3NMeFOSAA0521		(Purchased Reagent)		d3-NMeFOSAA	50000 ng/mL
..PFC_ST_01216	04/04/23		Wellington Laboratories, Lot d5NEtFOSAA0921		(Purchased Reagent)		d5-NETFOSAA	50000 ng/mL
..PFC_ST_01293	02/10/23		Wellington Laboratories, Lot d7NMeFOSE1220M		(Purchased Reagent)		d7-N-MeFOSE-M	50000 ng/mL
..PFC_ST_01295	02/10/23		Wellington Laboratories, Lot d9NEtFOSE1220M		(Purchased Reagent)		d9-N-EtFOSE-M	50000 ng/mL
..PFC ST 01411	10/12/26		Wellington Laboratories, Lot M8FOSA0921I		(Purchased Reagent)		13C8 FOSA	50000 ng/mL
..PFC ST 01412	10/13/26		Wellington Laboratories, Lot M242FTS01021		(Purchased Reagent)		M2-4:2 FTS	46700 ng/mL
..PFC ST 01467	03/22/23		Wellington Laboratories, Lot MFHUEA0322		(Purchased Reagent)		13C-6:2 FTUCA	50000 ppb
..PFC ST 01468	03/22/23		Wellington Laboratories, Lot MFOUEA1121		(Purchased Reagent)		13C-8:2 FTUCA	50000 ppb
..PFC ST 01469	03/22/23		Wellington Laboratories, Lot MFDUEA1221		(Purchased Reagent)		13C-10:2 FTUCA	50000 ppb
.PFC_IN_00702	10/13/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00698	1 mL	PFECA G	2000 ppb
							PPF Acid	2000 ppb
							MTP	2000 ppb
							PFMOAA	2000 ppb
							R-EVE	2000 ppb
							R-PSDA	2000 ppb
							Hydrolyzed PSDA	2000 ppb
							PFO2HxA	2000 ppb
							NVHOS	2000 ppb
							PFO3OA	2000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PFO4DA	2000 ppb
							Hydro-EVE Acid	2000 ppb
							EVE Acid	2000 ppb
							R-PSDCA	2000 ppb
							Hydro-PS Acid	2000 ppb
							PS Acid	2000 ppb
							TAF	2000 ppb
							PMPA	2000 ppb
							PEPA	2000 ppb
..PFC_IN_00698	10/13/22	06/09/22	Methanol, Lot ED319-US	10 mL	PFC_ST_00199	0.1 mL	PFECA G	10000 ppb
					PFC_ST_00329	0.1 mL	PPF Acid	10000 ppb
					PFC_ST_00332	0.1 mL	MTP	10000 ppb
					PFC_ST_01117	0.1 mL	PFMOAA	10000 ppb
					PFC_ST_01118	0.1 mL	R-EVE	10000 ppb
					PFC_ST_01119	0.1 mL	R-PSDA	10000 ppb
					PFC_ST_01120	0.1 mL	Hydrolyzed PSDA	10000 ppb
					PFC_ST_01121	0.1 mL	PFO2HxA	10000 ppb
					PFC_ST_01122	0.1 mL	NVHOS	10000 ppb
					PFC_ST_01124	0.1 mL	PFO3OA	10000 ppb
					PFC_ST_01127	0.1 mL	PFO4DA	10000 ppb
					PFC_ST_01128	0.1 mL	Hydro-EVE Acid	10000 ppb
					PFC_ST_01129	0.1 mL	EVE Acid	10000 ppb
					PFC_ST_01130	0.1 mL	R-PSDCA	10000 ppb
					PFC_ST_01131	0.1 mL	Hydro-PS Acid	10000 ppb
					PFC_ST_01132	0.1 mL	PS Acid	10000 ppb
					PFC_ST_01133	0.1 mL	TAF	10000 ppb
					PFC_ST_01134	0.1 mL	PMPA	10000 ppb
					PFC_ST_01135	0.1 mL	PEPA	10000 ppb
...PFC_ST_00199	02/26/23		Chemours, Lot N/A		(Purchased Reagent)		PFECA G	1000000 ug/L
...PFC_ST_00329	02/26/23		Chemours, Lot N/A		(Purchased Reagent)		PPF Acid	1000000 ug/L
...PFC_ST_00332	02/26/23		Chemours, Lot N/A		(Purchased Reagent)		MTP	1000000 ug/L
...PFC_ST_01117	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFMOAA	1000000 ug/L
...PFC_ST_01118	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-EVE	1000000 ug/L
...PFC_ST_01119	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-PSDA	1000000 ug/L
...PFC_ST_01120	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydrolyzed PSDA	1000000 ug/L
...PFC_ST_01121	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFO2HxA	1000000 ug/L
...PFC_ST_01122	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		NVHOS	1000000 ug/L
...PFC_ST_01124	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFO3OA	1000000 ug/L
...PFC_ST_01127	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFO4DA	1000000 ug/L
...PFC_ST_01128	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydro-EVE Acid	1000000 ug/L
...PFC_ST_01129	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		EVE Acid	1000000 ug/L
...PFC_ST_01130	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-PSDCA	1000000 ug/L
...PFC_ST_01131	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydro-PS Acid	1000000 ug/L
...PFC_ST_01132	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PS Acid	1000000 ug/L
...PFC_ST_01133	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		TAF	1000000 ug/L
...PFC_ST_01134	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PMPA	1000000 ug/L
...PFC_ST_01135	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PEPA	1000000 ug/L
..PFC_ST_01219	01/13/26		Wellington Laboratories, Lot MPFACCES0121		(Purchased Reagent)		13C2 PFTeDA	2000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C2-PFDoDA	2000 ppb
							13C3 PFBS	1860 ppb
							13C3 PFHxS	1892 ppb
							13C4 PFBA	2000 ppb
							13C4 PFHpA	2000 ppb
							13C5 PFHxA	2000 ppb
							13C5 PFPeA	2000 ppb
							13C6 PFDA	2000 ppb
							13C7 PFUnA	2000 ppb
							13C8 PFOA	2000 ppb
							13C8 PFOS	1912 ppb
							13C9 PFNA	2000 ppb
.PFC_ST_01249	04/26/26		Wellington Laboratories, Lot MPFACCIS0516		(Purchased Reagent)		13C2 PFDA	2000 ng/mL
							13C2 PFOA	2000 ng/mL
							13C3-PFBA	2000 ng/mL
							13C4 PFOS	1913 ng/mL
.PFC_ST_01549	06/01/24		Wellington Laboratories, Lot 537PDSR10521		(Purchased Reagent)		11Cl-PF3OUds	1860 ng/mL
							9Cl-PF3ONS	1860 ng/mL
							DONA	1890 ng/mL
							HFPODA	2000 ng/mL
							NEtFOSAA	2000 ng/mL
							NMeFOSAA	2000 ng/mL
							Perfluorobutanesulfonic acid	1770 ng/mL
							Perfluorodecanoic acid	2000 ng/mL
							Perfluorododecanoic acid	2000 ng/mL
							Perfluoroheptanoic acid	2000 ng/mL
							Perfluorohexanesulfonic acid	1824 ng/mL
							Perfluorohexanoic acid	2000 ng/mL
							Perfluorononanoic acid	2000 ng/mL
							Perfluorooctanesulfonic acid	1851 ng/mL
							Perfluorooctanoic acid	2000 ng/mL
							Perfluorotetradecanoic acid	2000 ng/mL
							Perfluorotridecanoic acid	2000 ng/mL
							Perfluoroundecanoic acid	2000 ng/mL
PFC_STD_XMOD5_00017	09/10/22	06/10/22	Methanol, Lot ED663-US	10 mL	PFC_IN_00699	0.1 mL	Perfluorooctadecanoic acid	20 ppb
							N-ethylperfluoro-1-octanesulfonamide	20 ppb
							NMeFOSA	20 ppb
							1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.16 ppb
							1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	19.28 ppb
							2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	20 ppb
							2-(N-methylperfluoro-1-octanesulfonamido) ethanol	20 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorododecanesulfonic acid (PFDoS)	19.36 ppb
							Perfluorohexadecanoic acid	20 ppb
							Perfluorooctanesulfonamide	20 ppb
							1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	18.68 ppb
							1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	18.96 ppb
							Perfluorobutanoic acid	20 ppb
							Perfluoropentanoic acid	20 ppb
							Perfluorodecanesulfonic acid	19.28 ppb
							Perfluoroheptanesulfonic acid	19.04 ppb
							Perfluorononanesulfonic acid	19.2 ppb
							Perfluoropentanesulfonic acid	18.76 ppb
					PFC_IN_00700	0.1 mL	3:3 FTCA	20 ppb
							5:3 FTCA	20 ppb
							7:3 FTCA	20 ppb
							6:2 FTCA	20 ppb
							8:2 FTCA	20 ppb
							10:2 FTCA	20 ppb
							PFECA F	20 ppb
							PFECA A	20 ppb
							PFECA B	20 ppb
							PES	17.8 ppb
							PFECHS	18.44 ppb
							PFPrS	18.32 ppb
							6:2 FTUCA	20 ppb
							8:2 FTUCA	20 ppb
							10:2 FTUCA	20 ppb
					PFC_IN_00701	0.05 mL	d5-NETPFOSA	10 ppb
							13C3 HFPO-DA	10 ppb
							M2-8:2 FTS	9.58 ppb
							M2-6:2 FTS	9.5 ppb
							d3-NMePFOSA	10 ppb
							13C-6:2 FTCA	10 ppb
							13C-10:2 FTCA	10 ppb
							13C-8:2 FTCA	10 ppb
							d3-NMeFOSAA	10 ppb
							d5-NETFOSAA	10 ppb
							d7-N-MeFOSE-M	10 ppb
							d9-N-EtFOSE-M	10 ppb
							13C8 FOSA	10 ppb
							M2-4:2 FTS	9.34 ppb
							13C-6:2 FTUCA	10 ppb
							13C-8:2 FTUCA	10 ppb
							13C-10:2 FTUCA	10 ppb
					PFC_IN_00702	0.1 mL	PFECA G	20 ppb
							PPF Acid	20 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							MTP	20 ppb
							PFMOAA	20 ppb
							R-EVE	20 ppb
							R-PSDA	20 ppb
							Hydrolyzed PSDA	20 ppb
							PFO2HxA	20 ppb
							NVHOS	20 ppb
							PFO3OA	20 ppb
							PFO4DA	20 ppb
							Hydro-EVE Acid	20 ppb
							EVE Acid	20 ppb
							R-PSDCA	20 ppb
							Hydro-PS Acid	20 ppb
							PS Acid	20 ppb
							TAF	20 ppb
							PMPA	20 ppb
							PEPA	20 ppb
					PFC_ST_01219	0.05 mL	13C2 PFTeDA	10 ppb
							13C2-PFDoDA	10 ppb
							13C3 PFBS	9.3 ppb
							13C3 PFHxS	9.46 ppb
							13C4 PFBA	10 ppb
							13C4 PFHpA	10 ppb
							13C5 PFHxA	10 ppb
							13C5 PFPeA	10 ppb
							13C6 PFDA	10 ppb
							13C7 PFUnA	10 ppb
							13C8 PFOA	10 ppb
							13C8 PFOS	9.56 ppb
							13C9 PFNA	10 ppb
					PFC_ST_01249	0.025 mL	13C2 PFDA	5 ppb
							13C2 PFOA	5 ppb
							13C3-PFBA	5 ppb
							13C4 PFOS	4.7825 ppb
					PFC_ST_01549	0.1 mL	11Cl-PF3OUds	18.6 ppb
							9Cl-PF3ONS	18.6 ppb
							DONA	18.9 ppb
							HFPODA	20 ppb
							NEtFOSAA	20 ppb
							NMeFOSAA	20 ppb
							Perfluorobutanesulfonic acid	17.7 ppb
							Perfluorodecanoic acid	20 ppb
							Perfluorododecanoic acid	20 ppb
							Perfluorododecanoic acid	20 ppb
							Perfluoroheptanoic acid	20 ppb
							Perfluorohexanesulfonic acid	18.24 ppb
							Perfluorohexanoic acid	20 ppb
							Perfluorononanoic acid	20 ppb
							Perfluorooctanesulfonic acid	18.51 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorooctanoic acid	20 ppb
							Perfluorotetradecanoic acid	20 ppb
							Perfluorotridecanoic acid	20 ppb
							Perfluoroundecanoic acid	20 ppb
.PFC_IN_00699	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00747	0.2 mL	Perfluorooctadecanoic acid	2000 ng/mL
					PFC_ST_00971	0.2 mL	N-ethylperfluoro-1-octanesulfonamide	2000 ng/mL
					PFC_ST_00972	0.2 mL	NMeFOSA	2000 ng/mL
					PFC_ST_00976	0.2 mL	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1916 ng/mL
					PFC_ST_00977	0.2 mL	1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	1928 ng/mL
					PFC_ST_01073	0.2 mL	2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	2000 ng/mL
					PFC_ST_01082	0.2 mL	2-(N-methylperfluoro-1-octanesulfonamido) ethanol	2000 ng/mL
					PFC_ST_01224	0.2 mL	Perfluorododecanesulfonic acid (PFDoS)	1936 ng/mL
					PFC_ST_01226	0.2 mL	Perfluorohexadecanoic acid	2000 ng/mL
					PFC_ST_01227	0.2 mL	Perfluorooctanesulfonamide	2000 ng/mL
					PFC_ST_01228	0.2 mL	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	1868 ng/mL
					PFC_ST_01229	0.2 mL	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1896 ng/mL
					PFC_ST_01232	0.2 mL	Perfluorobutanoic acid	2000 ng/mL
					PFC_ST_01233	0.2 mL	Perfluoropentanoic acid	2000 ng/mL
					PFC_ST_01234	0.2 mL	Perfluorodecanesulfonic acid	1928 ng/mL
					PFC_ST_01235	0.2 mL	Perfluoroheptanesulfonic acid	1904 ng/mL
					PFC_ST_01236	0.2 mL	Perfluorononanesulfonic acid	1920 ng/mL
					PFC_ST_01237	0.2 mL	Perfluoropentanesulfonic acid	1876 ng/mL
..PFC_ST_00747	11/13/25	Wellington Laboratories, Lot PFODA1020			(Purchased Reagent)		Perfluorooctadecanoic acid	50000 ng/mL
..PFC_ST_00971	11/23/25	Wellington Laboratories, Lot NtFOSA1120M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50000 ng/mL
..PFC_ST_00972	10/20/25	Wellington Laboratories, Lot NMeFOSA1020M			(Purchased Reagent)		NMeFOSA	50000 ng/mL
..PFC_ST_00976	12/01/25	Wellington Laboratories, Lot 82FTS1120			(Purchased Reagent)		1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	47900 ng/mL
..PFC_ST_00977	03/03/26	Wellington Laboratories, Lot 102FTS0221			(Purchased Reagent)		1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	48200 ng/mL
..PFC_ST_01073	06/02/26	Wellington Laboratories, Lot NtFOSE0521M			(Purchased Reagent)		2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
..PFC_ST_01082	06/02/26	Wellington Laboratories, Lot NMeFOSE0521M			(Purchased Reagent)		2-(N-methylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
..PFC_ST_01224	02/16/23	Wellington Laboratories, Lot LPFDoS0721			(Purchased Reagent)		Perfluorododecanesulfonic acid (PFDoS)	48400 ng/mL
..PFC_ST_01226	05/07/26	Wellington Laboratories, Lot PFHxDA0421			(Purchased Reagent)		Perfluorohexadecanoic acid	50000 ng/mL
..PFC_ST_01227	08/10/26	Wellington Laboratories, Lot FOSA0721I			(Purchased Reagent)		Perfluorooctanesulfonamide	50000 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..PFC_ST_01228	10/04/26		Wellington Laboratories, Lot 42FTS0921			(Purchased Reagent)	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	46700 ng/mL
..PFC_ST_01229	06/09/26		Wellington Laboratories, Lot 62FTS0521			(Purchased Reagent)	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47400 ng/mL
..PFC ST 01232	10/04/26		Wellington Laboratories, Lot PFBA1021			(Purchased Reagent)	Perfluorobutanoic acid	50000 ng/mL
..PFC ST 01233	08/10/26		Wellington Laboratories, Lot PFPeA0721			(Purchased Reagent)	Perfluoropentanoic acid	50000 ng/mL
..PFC ST 01234	08/19/26		Wellington Laboratories, Lot LPPFDS0821			(Purchased Reagent)	Perfluorodecanesulfonic acid	48200 ng/mL
..PFC ST 01235	07/09/26		Wellington Laboratories, Lot LPPFHpS0721			(Purchased Reagent)	Perfluoroheptanesulfonic acid	47600 ng/mL
..PFC ST 01236	10/19/26		Wellington Laboratories, Lot LPPFNS1021			(Purchased Reagent)	Perfluorononanesulfonic acid	48000 ng/mL
..PFC ST 01237	07/12/26		Wellington Laboratories, Lot LPPFPeS0721			(Purchased Reagent)	Perfluoropentanesulfonic acid	46900 ng/mL
.PFC_IN_00700	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC ST 01094	0.2 mL	3:3 FTCA	2000 ppb
					PFC ST 01095	0.2 mL	5:3 FTCA	2000 ppb
					PFC ST 01096	0.2 mL	7:3 FTCA	2000 ppb
					PFC ST 01097	0.2 mL	6:2 FTCA	2000 ppb
					PFC ST 01098	0.2 mL	8:2 FTCA	2000 ppb
					PFC ST 01099	0.2 mL	10:2 FTCA	2000 ppb
					PFC ST 01103	0.2 mL	PFECA F	2000 ppb
					PFC ST 01104	0.2 mL	PFECA A	2000 ppb
					PFC ST 01105	0.2 mL	PFECA B	2000 ppb
					PFC ST 01106	0.2 mL	PES	1780 ppb
					PFC ST 01107	0.2 mL	PFECHS	1844 ppb
					PFC ST 01223	0.2 mL	PFPrS	1832 ppb
					PFC ST 01367	0.2 mL	6:2 FTUCA	2000 ppb
					PFC ST 01368	0.2 mL	8:2 FTUCA	2000 ppb
					PFC ST 01369	0.2 mL	10:2 FTUCA	2000 ppb
..PFC ST 01094	11/12/25		Wellington Laboratories, Lot FPrPA1020			(Purchased Reagent)	3:3 FTCA	50000 ng/mL
..PFC ST 01095	11/11/25		Wellington Laboratories, Lot FPePA1120			(Purchased Reagent)	5:3 FTCA	50000 ng/mL
..PFC ST 01096	11/12/25		Wellington Laboratories, Lot FHPA1020			(Purchased Reagent)	7:3 FTCA	50000 ng/mL
..PFC ST 01097	03/08/24		Wellington Laboratories, Lot FHEA0321			(Purchased Reagent)	6:2 FTCA	50000 ng/mL
..PFC ST 01098	08/18/24		Wellington Laboratories, Lot FOEA0821			(Purchased Reagent)	8:2 FTCA	50000 ng/mL
..PFC ST 01099	07/07/23		Wellington Laboratories, Lot FDEA0720			(Purchased Reagent)	10:2 FTCA	50000 ng/mL
..PFC ST 01103	03/31/25		Wellington Laboratories, Lot PF40PeA0320			(Purchased Reagent)	PFECA F	50000 ng/mL
..PFC ST 01104	03/31/25		Wellington Laboratories, Lot PF50HxA0320			(Purchased Reagent)	PFECA A	50000 ng/mL
..PFC ST 01105	03/31/25		Wellington Laboratories, Lot 36OPFHPA0320			(Purchased Reagent)	PFECA B	50000 ng/mL
..PFC ST 01106	05/13/25		Wellington Laboratories, Lot PFEESA0520			(Purchased Reagent)	PES	44500 ppb
..PFC ST 01107	04/06/26		Wellington Laboratoires, Lot PFECHS0421			(Purchased Reagent)	PFECHS	46100 ppb
..PFC ST 01223	07/12/26		Wellington Laboratories, Lot LPPPrS0721			(Purchased Reagent)	PFPrS	45800 ppb
..PFC ST 01367	09/03/23		Wellington Laboratories, Lot FHUEA0921			(Purchased Reagent)	6:2 FTUCA	50000 ng/mL
..PFC ST 01368	03/29/23		Wellington Laboratories, Lot FOUEA0321			(Purchased Reagent)	8:2 FTUCA	50000 ng/mL
..PFC ST 01369	03/29/23		Wellington Laboratories, Lot FDUEA1021			(Purchased Reagent)	10:2 FTUCA	50000 ng/mL
.PFC_IN_00701	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC ST 00981	0.2 mL	d5-NETPFOSA	2000 ppb
					PFC ST 00984	0.2 mL	13C3 HFPO-DA	2000 ppb
					PFC ST 00985	0.2 mL	M2-8:2 FTS	1916 ppb
					PFC ST 00986	0.2 mL	M2-6:2 FTS	1900 ppb
					PFC ST 01081	0.2 mL	d3-NMePFOSA	2000 ppb
					PFC ST 01108	0.2 mL	13C-6:2 FTCA	2000 ppb
					PFC ST 01109	0.2 mL	13C-10:2 FTCA	2000 ppb
					PFC_ST_01113	0.2 mL	13C-8:2 FTCA	2000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_01215	0.2 mL	d3-NMeFOSAA	2000 ppb
					PFC_ST_01216	0.2 mL	d5-NEtFOSAA	2000 ppb
					PFC_ST_01293	0.2 mL	d7-N-MeFOSE-M	2000 ppb
					PFC_ST_01295	0.2 mL	d9-N-EtFOSE-M	2000 ppb
					PFC_ST_01411	0.2 mL	13C8 FOSA	2000 ppb
					PFC_ST_01412	0.2 mL	M2-4:2 FTS	1868 ppb
					PFC_ST_01467	0.2 mL	13C-6:2 FTUCA	2000 ppb
					PFC_ST_01468	0.2 mL	13C-8:2 FTUCA	2000 ppb
					PFC_ST_01469	0.2 mL	13C-10:2 FTUCA	2000 ppb
..PFC_ST_00981	11/23/25		Wellington Laboratories, Lot dNEtFOSA1120M				(Purchased Reagent) d5-NEtPFOSA	50000 ng/mL
..PFC ST 00984	05/13/24		Wellington Laboratories, Lot M3HFPODA0521				(Purchased Reagent) 13C3 HFPO-DA	50000 ng/mL
..PFC ST 00985	12/17/25		Wellington Laboratories, Lot M282FTS1220				(Purchased Reagent) M2-8:2 FTS	47900 ng/mL
..PFC ST 00986	05/14/26		Wellington Laboratories, Lot M262FTS0521				(Purchased Reagent) M2-6:2 FTS	47500 ng/mL
..PFC_ST_01081	04/04/23		Wellington Laboratories, Lot dNMeFOSA0421M				(Purchased Reagent) d3-NMePFOSA	50000 ng/mL
..PFC ST 01108	04/04/23		Wellington Laboratories, Lot MFHEA0421				(Purchased Reagent) 13C-6:2 FTCA	50000 ppb
..PFC ST 01109	04/04/23		Wellington Laboratories, Lot MFDEA0817				(Purchased Reagent) 13C-10:2 FTCA	50000 ppb
..PFC ST 01113	04/04/23		Wellington Laboratories, Lot MFOEA1020				(Purchased Reagent) 13C-8:2 FTCA	50000 ppb
..PFC_ST_01215	04/04/23		Wellington Laboratories, Lot d3NMeFOSAA0521				(Purchased Reagent) d3-NMeFOSAA	50000 ng/mL
..PFC_ST_01216	04/04/23		Wellington Laboratories, Lot d5NEtFOSAA0921				(Purchased Reagent) d5-NEtFOSAA	50000 ng/mL
..PFC_ST_01293	02/10/23		Wellington Laboratories, Lot d7NMeFOSE1220M				(Purchased Reagent) d7-N-MeFOSE-M	50000 ng/mL
..PFC_ST_01295	02/10/23		Wellington Laboratories, Lot d9NEtFOSE1220M				(Purchased Reagent) d9-N-EtFOSE-M	50000 ng/mL
..PFC ST 01411	10/12/26		Wellington Laboratories, Lot M8FOSA0921I				(Purchased Reagent) 13C8 FOSA	50000 ng/mL
..PFC ST 01412	10/13/26		Wellington Laboratories, Lot M242FTS01021				(Purchased Reagent) M2-4:2 FTS	46700 ng/mL
..PFC ST 01467	03/22/23		Wellington Laboratories, Lot MFHUEA0322				(Purchased Reagent) 13C-6:2 FTUCA	50000 ppb
..PFC ST 01468	03/22/23		Wellington Laboratories, Lot MFOUEA1121				(Purchased Reagent) 13C-8:2 FTUCA	50000 ppb
..PFC ST 01469	03/22/23		Wellington Laboratories, Lot MFDUEA1221				(Purchased Reagent) 13C-10:2 FTUCA	50000 ppb
.PFC_IN_00702	10/13/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00698	1 mL	PFECA G PPF Acid MTP PFMOAA R-EVE R-PSDA Hydrolyzed PSDA PFO2HxA NVHOS PFO3OA PFO4DA Hydro-EVE Acid EVE Acid R-PSDCA Hydro-PS Acid PS Acid TAF	2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb 2000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PMPA	2000 ppb
							PEPA	2000 ppb
..PFC_IN_00698	10/13/22	06/09/22	Methanol, Lot ED319-US	10 mL	PFC_ST_00199	0.1 mL	PFECA G	10000 ppb
					PFC_ST_00329	0.1 mL	PPF Acid	10000 ppb
					PFC_ST_00332	0.1 mL	MTP	10000 ppb
					PFC_ST_01117	0.1 mL	PFMOAA	10000 ppb
					PFC_ST_01118	0.1 mL	R-EVE	10000 ppb
					PFC_ST_01119	0.1 mL	R-PSDA	10000 ppb
					PFC_ST_01120	0.1 mL	Hydrolyzed PSDA	10000 ppb
					PFC_ST_01121	0.1 mL	PFO2HxA	10000 ppb
					PFC_ST_01122	0.1 mL	NVHOS	10000 ppb
					PFC_ST_01124	0.1 mL	PFO3OA	10000 ppb
					PFC_ST_01127	0.1 mL	PFO4DA	10000 ppb
					PFC_ST_01128	0.1 mL	Hydro-EVE Acid	10000 ppb
					PFC_ST_01129	0.1 mL	EVE Acid	10000 ppb
					PFC_ST_01130	0.1 mL	R-PSDCA	10000 ppb
					PFC_ST_01131	0.1 mL	Hydro-PS Acid	10000 ppb
					PFC_ST_01132	0.1 mL	PS Acid	10000 ppb
					PFC_ST_01133	0.1 mL	TAF	10000 ppb
					PFC_ST_01134	0.1 mL	PMPA	10000 ppb
PFC_ST_01135	0.1 mL	PEPA	10000 ppb					
...PFC_ST_00199	02/26/23		Chemours, Lot N/A			(Purchased Reagent)	PFECA G	1000000 ug/L
...PFC_ST_00329	02/26/23		Chemours, Lot N/A			(Purchased Reagent)	PPF Acid	1000000 ug/L
...PFC_ST_00332	02/26/23		Chemours, Lot N/A			(Purchased Reagent)	MTP	1000000 ug/L
...PFC_ST_01117	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PFMOAA	1000000 ug/L
...PFC_ST_01118	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	R-EVE	1000000 ug/L
...PFC_ST_01119	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	R-PSDA	1000000 ug/L
...PFC_ST_01120	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	Hydrolyzed PSDA	1000000 ug/L
...PFC_ST_01121	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PFO2HxA	1000000 ug/L
...PFC_ST_01122	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	NVHOS	1000000 ug/L
...PFC_ST_01124	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PFO3OA	1000000 ug/L
...PFC_ST_01127	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PFO4DA	1000000 ug/L
...PFC_ST_01128	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	Hydro-EVE Acid	1000000 ug/L
...PFC_ST_01129	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	EVE Acid	1000000 ug/L
...PFC_ST_01130	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	R-PSDCA	1000000 ug/L
...PFC_ST_01131	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	Hydro-PS Acid	1000000 ug/L
...PFC_ST_01132	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PS Acid	1000000 ug/L
...PFC_ST_01133	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	TAF	1000000 ug/L
...PFC_ST_01134	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PMPA	1000000 ug/L
...PFC_ST_01135	10/13/22		Chemours, Lot N/A			(Purchased Reagent)	PEPA	1000000 ug/L
.PFC_ST_01219	01/13/26		Wellington Laboratories, Lot MPFACCES0121			(Purchased Reagent)	13C2 PFTeDA	2000 ppb
							13C2-PFDoDA	2000 ppb
							13C3 PFBS	1860 ppb
							13C3 PFHxS	1892 ppb
							13C4 PFBA	2000 ppb
							13C4 PFHpA	2000 ppb
							13C5 PFHxA	2000 ppb
							13C5 PFPeA	2000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C6 PFDA	2000 ppb
							13C7 PFUnA	2000 ppb
							13C8 PFOA	2000 ppb
							13C8 PFOS	1912 ppb
							13C9 PFNA	2000 ppb
.PFC_ST_01249	04/26/26		Wellington Laboratories, Lot MPFACCIS0516		(Purchased Reagent)		13C2 PFDA	2000 ng/mL
							13C2 PFOA	2000 ng/mL
							13C3-PFBA	2000 ng/mL
							13C4 PFOS	1913 ng/mL
.PFC_ST_01549	06/01/24		Wellington Laboratories, Lot 537PDSR10521		(Purchased Reagent)		11C1-PF3OUdS	1860 ng/mL
							9C1-PF3ONS	1860 ng/mL
							DONA	1890 ng/mL
							HFPODA	2000 ng/mL
							NETFOSAA	2000 ng/mL
							NMeFOSAA	2000 ng/mL
							Perfluorobutanesulfonic acid	1770 ng/mL
							Perfluorodecanoic acid	2000 ng/mL
							Perfluorododecanoic acid	2000 ng/mL
							Perfluoroheptanoic acid	2000 ng/mL
							Perfluorohexanesulfonic acid	1824 ng/mL
							Perfluorohexanoic acid	2000 ng/mL
							Perfluorononanoic acid	2000 ng/mL
							Perfluorooctanesulfonic acid	1851 ng/mL
							Perfluorooctanoic acid	2000 ng/mL
							Perfluorotetradecanoic acid	2000 ng/mL
							Perfluorotridecanoic acid	2000 ng/mL
							Perfluoroundecanoic acid	2000 ng/mL
PFC_STD_XMOD6_00018	09/10/22	06/10/22	Methanol, Lot ED663-US	10 mL	PFC_IN_00699	0.25 mL	Perfluorooctadecanoic acid	50 ppb
							N-ethylperfluoro-1-octanesulfonamide	50 ppb
							NMeFOSA	50 ppb
							1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	47.9 ppb
							1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	48.2 ppb
							2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	50 ppb
							2-(N-methylperfluoro-1-octanesulfonamido) ethanol	50 ppb
							Perfluorododecanesulfonic acid (PFDoS)	48.4 ppb
							Perfluorohexadecanoic acid	50 ppb
							Perfluorooctanesulfonamide	50 ppb
							1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	46.7 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47.4 ppb
							Perfluorobutanoic acid	50 ppb
							Perfluoropentanoic acid	50 ppb
							Perfluorodecanesulfonic acid	48.2 ppb
							Perfluoroheptanesulfonic acid	47.6 ppb
							Perfluorononanesulfonic acid	48 ppb
							Perfluoropentanesulfonic acid	46.9 ppb
					PFC_IN_00700	0.25 mL	3:3 FTCA	50 ppb
							5:3 FTCA	50 ppb
							7:3 FTCA	50 ppb
							6:2 FTCA	50 ppb
							8:2 FTCA	50 ppb
							10:2 FTCA	50 ppb
							PFECA F	50 ppb
							PFECA A	50 ppb
							PFECA B	50 ppb
							PES	44.5 ppb
							PFECHS	46.1 ppb
							PFPrS	45.8 ppb
							6:2 FTUCA	50 ppb
							8:2 FTUCA	50 ppb
							10:2 FTUCA	50 ppb
					PFC_IN_00701	0.05 mL	d5-NETPFOSA	10 ppb
							13C3 HFPO-DA	10 ppb
							M2-8:2 FTS	9.58 ppb
							M2-6:2 FTS	9.5 ppb
							d3-NMePFOSA	10 ppb
							13C-6:2 FTCA	10 ppb
							13C-10:2 FTCA	10 ppb
							13C-8:2 FTCA	10 ppb
							d3-NMeFOSAA	10 ppb
							d5-NETFOSAA	10 ppb
							d7-N-MeFOSE-M	10 ppb
							d9-N-EtFOSE-M	10 ppb
							13C8 FOSA	10 ppb
							M2-4:2 FTS	9.34 ppb
							13C-6:2 FTUCA	10 ppb
							13C-8:2 FTUCA	10 ppb
							13C-10:2 FTUCA	10 ppb
					PFC_IN_00702	0.25 mL	PFECA G	50 ppb
							PPF Acid	50 ppb
							MTP	50 ppb
							PFMOAA	50 ppb
							R-EVE	50 ppb
							R-PSDA	50 ppb
							Hydrolyzed PSDA	50 ppb
							PFO2HxA	50 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
							NVHOS	50 ppb		
							PF030A	50 ppb		
							PF04DA	50 ppb		
							Hydro-EVE Acid	50 ppb		
							EVE Acid	50 ppb		
							R-PSDCA	50 ppb		
							Hydro-PS Acid	50 ppb		
							PS Acid	50 ppb		
							TAF	50 ppb		
							PMPA	50 ppb		
							PEPA	50 ppb		
							PFC_ST_01219	0.05 mL	13C2 PFTeDA	10 ppb
									13C2-PFDoDA	10 ppb
							13C3 PFBS	9.3 ppb		
							13C3 PFHxS	9.46 ppb		
							13C4 PFBA	10 ppb		
							13C4 PFHpA	10 ppb		
							13C5 PFHxA	10 ppb		
							13C5 PFPeA	10 ppb		
							13C6 PFDA	10 ppb		
							13C7 PFUnA	10 ppb		
							13C8 PFOA	10 ppb		
							13C8 PFOS	9.56 ppb		
							13C9 PFNA	10 ppb		
							PFC_ST_01249	0.025 mL		
							13C2 PFDA	5 ppb		
							13C2 PFOA	5 ppb		
							13C3-PFBA	5 ppb		
							13C4 PFOS	4.7825 ppb		
							PFC_ST_01549	0.25 mL		
							11C1-PF3OUds	46.5 ppb		
							9C1-PF3ONS	46.5 ppb		
							DONA	47.25 ppb		
							HFPODA	50 ppb		
							NEtFOSAA	50 ppb		
							NMeFOSAA	50 ppb		
							Perfluorobutanesulfonic acid	44.25 ppb		
							Perfluorodecanoic acid	50 ppb		
							Perfluorododecanoic acid	50 ppb		
							Perfluoroheptanoic acid	50 ppb		
							Perfluorohexanesulfonic acid	45.6 ppb		
		Perfluorohexanoic acid	50 ppb							
		Perfluorononanoic acid	50 ppb							
		Perfluorooctanesulfonic acid	46.275 ppb							
		Perfluorooctanoic acid	50 ppb							
		Perfluorotetradecanoic acid	50 ppb							
		Perfluorotridecanoic acid	50 ppb							
		Perfluoroundecanoic acid	50 ppb							
.PFC_IN_00699	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00747	0.2 mL	Perfluorooctadecanoic acid	2000 ng/mL		

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_00971	0.2 mL	N-ethylperfluoro-1-octanesulfonamide	2000 ng/mL
					PFC_ST_00972	0.2 mL	NMeFOSA	2000 ng/mL
					PFC_ST_00976	0.2 mL	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1916 ng/mL
					PFC_ST_00977	0.2 mL	1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	1928 ng/mL
					PFC_ST_01073	0.2 mL	2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	2000 ng/mL
					PFC_ST_01082	0.2 mL	2-(N-methylperfluoro-1-octanesulfonamido) ethanol	2000 ng/mL
					PFC_ST_01224	0.2 mL	Perfluorododecanesulfonic acid (PFDoS)	1936 ng/mL
					PFC_ST_01226	0.2 mL	Perfluorohexadecanoic acid	2000 ng/mL
					PFC_ST_01227	0.2 mL	Perfluorooctanesulfonamide	2000 ng/mL
					PFC_ST_01228	0.2 mL	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	1868 ng/mL
					PFC_ST_01229	0.2 mL	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1896 ng/mL
					PFC_ST_01232	0.2 mL	Perfluorobutanoic acid	2000 ng/mL
					PFC_ST_01233	0.2 mL	Perfluoropentanoic acid	2000 ng/mL
					PFC_ST_01234	0.2 mL	Perfluorodecanesulfonic acid	1928 ng/mL
					PFC_ST_01235	0.2 mL	Perfluoroheptanesulfonic acid	1904 ng/mL
					PFC_ST_01236	0.2 mL	Perfluorononanesulfonic acid	1920 ng/mL
					PFC_ST_01237	0.2 mL	Perfluoropentanesulfonic acid	1876 ng/mL
..PFC_ST_00747	11/13/25	Wellington Laboratories, Lot PFODA1020			(Purchased Reagent)		Perfluorooctadecanoic acid	50000 ng/mL
..PFC_ST_00971	11/23/25	Wellington Laboratories, Lot NETFOSA1120M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50000 ng/mL
..PFC_ST_00972	10/20/25	Wellington Laboratories, Lot NMeFOSA1020M			(Purchased Reagent)		NMeFOSA	50000 ng/mL
..PFC_ST_00976	12/01/25	Wellington Laboratories, Lot 82FTS1120			(Purchased Reagent)		1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	47900 ng/mL
..PFC_ST_00977	03/03/26	Wellington Laboratories, Lot 102FTS0221			(Purchased Reagent)		1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	48200 ng/mL
..PFC_ST_01073	06/02/26	Wellington Laboratories, Lot NETFOSE0521M			(Purchased Reagent)		2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
..PFC_ST_01082	06/02/26	Wellington Laboratories, Lot NMeFOSE0521M			(Purchased Reagent)		2-(N-methylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
..PFC_ST_01224	02/16/23	Wellington Laboratories, Lot LPFDoS0721			(Purchased Reagent)		Perfluorododecanesulfonic acid (PFDoS)	48400 ng/mL
..PFC_ST_01226	05/07/26	Wellington Laboratories, Lot PFHxDA0421			(Purchased Reagent)		Perfluorohexadecanoic acid	50000 ng/mL
..PFC_ST_01227	08/10/26	Wellington Laboratories, Lot FOSA0721I			(Purchased Reagent)		Perfluorooctanesulfonamide	50000 ng/mL
..PFC_ST_01228	10/04/26	Wellington Laboratories, Lot 42FTS0921			(Purchased Reagent)		1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	46700 ng/mL
..PFC_ST_01229	06/09/26	Wellington Laboratories, Lot 62FTS0521			(Purchased Reagent)		1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47400 ng/mL
..PFC_ST_01232	10/04/26	Wellington Laboratories, Lot PFBA1021			(Purchased Reagent)		Perfluorobutanoic acid	50000 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..PFC ST 01233	08/10/26		Wellington Laboratories, Lot FFPeA0721		(Purchased Reagent)		Perfluoropentanoic acid	50000 ng/mL
..PFC ST 01234	08/19/26		Wellington Laboratories, Lot LPFDS0821		(Purchased Reagent)		Perfluorodecanesulfonic acid	48200 ng/mL
..PFC ST 01235	07/09/26		Wellington Laboratories, Lot LPPHs0721		(Purchased Reagent)		Perfluoroheptanesulfonic acid	47600 ng/mL
..PFC ST 01236	10/19/26		Wellington Laboratories, Lot LPFNS1021		(Purchased Reagent)		Perfluorononanesulfonic acid	48000 ng/mL
..PFC ST 01237	07/12/26		Wellington Laboratories, Lot LPPeS0721		(Purchased Reagent)		Perfluoropentanesulfonic acid	46900 ng/mL
.PFC_IN_00700	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_01094	0.2 mL	3:3 FTCA	2000 ppb
					PFC_ST_01095	0.2 mL	5:3 FTCA	2000 ppb
					PFC_ST_01096	0.2 mL	7:3 FTCA	2000 ppb
					PFC_ST_01097	0.2 mL	6:2 FTCA	2000 ppb
					PFC_ST_01098	0.2 mL	8:2 FTCA	2000 ppb
					PFC_ST_01099	0.2 mL	10:2 FTCA	2000 ppb
					PFC_ST_01103	0.2 mL	PFECA F	2000 ppb
					PFC_ST_01104	0.2 mL	PFECA A	2000 ppb
					PFC_ST_01105	0.2 mL	PFECA B	2000 ppb
					PFC_ST_01106	0.2 mL	PES	1780 ppb
					PFC_ST_01107	0.2 mL	PFECHS	1844 ppb
					PFC_ST_01223	0.2 mL	PFPrS	1832 ppb
					PFC_ST_01367	0.2 mL	6:2 FTUCA	2000 ppb
					PFC_ST_01368	0.2 mL	8:2 FTUCA	2000 ppb
					PFC_ST_01369	0.2 mL	10:2 FTUCA	2000 ppb
..PFC ST 01094	11/12/25		Wellington Laboratories, Lot FPrPA1020		(Purchased Reagent)		3:3 FTCA	50000 ng/mL
..PFC ST 01095	11/11/25		Wellington Laboratories, Lot FPePA1120		(Purchased Reagent)		5:3 FTCA	50000 ng/mL
..PFC ST 01096	11/12/25		Wellington Laboratories, Lot FHpPA1020		(Purchased Reagent)		7:3 FTCA	50000 ng/mL
..PFC ST 01097	03/08/24		Wellington Laboratories, Lot FHEA0321		(Purchased Reagent)		6:2 FTCA	50000 ng/mL
..PFC ST 01098	08/18/24		Wellington Laboratories, Lot FOEA0821		(Purchased Reagent)		8:2 FTCA	50000 ng/mL
..PFC ST 01099	07/07/23		Wellington Laboratories, Lot FDEA0720		(Purchased Reagent)		10:2 FTCA	50000 ng/mL
..PFC ST 01103	03/31/25		Wellington Laboratories, Lot PF40PeA0320		(Purchased Reagent)		PFECA F	50000 ng/mL
..PFC ST 01104	03/31/25		Wellington Laboratories, Lot PF50HxA0320		(Purchased Reagent)		PFECA A	50000 ng/mL
..PFC ST 01105	03/31/25		Wellington Laboratories, Lot 36OPFHxA0320		(Purchased Reagent)		PFECA B	50000 ng/mL
..PFC ST 01106	05/13/25		Wellington Laboratories, Lot PFEESA0520		(Purchased Reagent)		PES	44500 ppb
..PFC ST 01107	04/06/26		Wellington Laboratoires, Lot PFECHS0421		(Purchased Reagent)		PFECHS	46100 ppb
..PFC ST 01223	07/12/26		Wellington Laboratories, Lot LPPPrS0721		(Purchased Reagent)		PFPrS	45800 ppb
..PFC ST 01367	09/03/23		Wellington Laboratories, Lot FHUEA0921		(Purchased Reagent)		6:2 FTUCA	50000 ng/mL
..PFC ST 01368	03/29/23		Wellington Laboratories, Lot FOUEA0321		(Purchased Reagent)		8:2 FTUCA	50000 ng/mL
..PFC ST 01369	03/29/23		Wellington Laboratories, Lot FDUEA1021		(Purchased Reagent)		10:2 FTUCA	50000 ng/mL
.PFC_IN_00701	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00981	0.2 mL	d5-NETPFOSA	2000 ppb
					PFC_ST_00984	0.2 mL	13C3 HFPO-DA	2000 ppb
					PFC_ST_00985	0.2 mL	M2-8:2 FTS	1916 ppb
					PFC_ST_00986	0.2 mL	M2-6:2 FTS	1900 ppb
					PFC_ST_01081	0.2 mL	d3-NMePFOSA	2000 ppb
					PFC_ST_01108	0.2 mL	13C-6:2 FTCA	2000 ppb
					PFC_ST_01109	0.2 mL	13C-10:2 FTCA	2000 ppb
					PFC_ST_01113	0.2 mL	13C-8:2 FTCA	2000 ppb
					PFC_ST_01215	0.2 mL	d3-NMeFOSAA	2000 ppb
					PFC_ST_01216	0.2 mL	d5-NETFOSAA	2000 ppb
					PFC_ST_01293	0.2 mL	d7-N-MeFOSE-M	2000 ppb
					PFC_ST_01295	0.2 mL	d9-N-EtFOSE-M	2000 ppb
					PFC_ST_01411	0.2 mL	13C8 FOSA	2000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_01412	0.2 mL	M2-4:2 FTS	1868 ppb
					PFC_ST_01467	0.2 mL	13C-6:2 FTUCA	2000 ppb
					PFC_ST_01468	0.2 mL	13C-8:2 FTUCA	2000 ppb
					PFC_ST_01469	0.2 mL	13C-10:2 FTUCA	2000 ppb
..PFC_ST_00981	11/23/25		Wellington Laboratories, Lot dNetFOSA1120M		(Purchased Reagent)		d5-NetPFOSA	50000 ng/mL
..PFC ST 00984	05/13/24		Wellington Laboratories, Lot M3HFPODA0521		(Purchased Reagent)		13C3 HFPO-DA	50000 ng/mL
..PFC ST 00985	12/17/25		Wellington Laboratories, Lot M282FTS1220		(Purchased Reagent)		M2-8:2 FTS	47900 ng/mL
..PFC ST 00986	05/14/26		Wellington Laboratories, Lot M262FTS0521		(Purchased Reagent)		M2-6:2 FTS	47500 ng/mL
..PFC_ST_01081	04/04/23		Wellington Laboratories, Lot dNMeFOSA0421M		(Purchased Reagent)		d3-NMePFOSA	50000 ng/mL
..PFC ST 01108	04/04/23		Wellington Laboratories, Lot MFHEA0421		(Purchased Reagent)		13C-6:2 FTCA	50000 ppb
..PFC ST 01109	04/04/23		Wellington Laboratories, Lot MFDEA0817		(Purchased Reagent)		13C-10:2 FTCA	50000 ppb
..PFC ST 01113	04/04/23		Wellington Laboratories, Lot MFOEA1020		(Purchased Reagent)		13C-8:2 FTCA	50000 ppb
..PFC_ST_01215	04/04/23		Wellington Laboratories, Lot d3NMeFOSAA0521		(Purchased Reagent)		d3-NMeFOSAA	50000 ng/mL
..PFC_ST_01216	04/04/23		Wellington Laboratories, Lot d5NetFOSAA0921		(Purchased Reagent)		d5-NetFOSAA	50000 ng/mL
..PFC_ST_01293	02/10/23		Wellington Laboratories, Lot d7NMeFOSE1220M		(Purchased Reagent)		d7-N-MeFOSE-M	50000 ng/mL
..PFC_ST_01295	02/10/23		Wellington Laboratories, Lot d9NetFOSE1220M		(Purchased Reagent)		d9-N-EtFOSE-M	50000 ng/mL
..PFC ST 01411	10/12/26		Wellington Laboratories, Lot M8FOSA0921I		(Purchased Reagent)		13C8 FOSA	50000 ng/mL
..PFC ST 01412	10/13/26		Wellington Laboratories, Lot M242FTS01021		(Purchased Reagent)		M2-4:2 FTS	46700 ng/mL
..PFC ST 01467	03/22/23		Wellington Laboratories, Lot MFHUEA0322		(Purchased Reagent)		13C-6:2 FTUCA	50000 ppb
..PFC ST 01468	03/22/23		Wellington Laboratories, Lot MFOUEA1121		(Purchased Reagent)		13C-8:2 FTUCA	50000 ppb
..PFC ST 01469	03/22/23		Wellington Laboratories, Lot MFDUEA1221		(Purchased Reagent)		13C-10:2 FTUCA	50000 ppb
.PFC_IN_00702	10/13/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00698	1 mL	PFECA G	2000 ppb
							PPF Acid	2000 ppb
							MTP	2000 ppb
							PFMOAA	2000 ppb
							R-EVE	2000 ppb
							R-PSDA	2000 ppb
							Hydrolyzed PSDA	2000 ppb
							PFO2HxA	2000 ppb
							NVHOS	2000 ppb
							PFO3OA	2000 ppb
							PFO4DA	2000 ppb
							Hydro-EVE Acid	2000 ppb
							EVE Acid	2000 ppb
							R-PSDCA	2000 ppb
							Hydro-PS Acid	2000 ppb
							PS Acid	2000 ppb
							TAF	2000 ppb
							PMPA	2000 ppb
							PEPA	2000 ppb
..PFC_IN_00698	10/13/22	06/09/22	Methanol, Lot ED319-US	10 mL	PFC_ST_00199	0.1 mL	PFECA G	10000 ppb
					PFC_ST_00329	0.1 mL	PPF Acid	10000 ppb
					PFC_ST_00332	0.1 mL	MTP	10000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC ST 01117	0.1 mL	PFMOAA	10000 ppb
					PFC ST 01118	0.1 mL	R-EVE	10000 ppb
					PFC ST 01119	0.1 mL	R-PSDA	10000 ppb
					PFC ST 01120	0.1 mL	Hydrolyzed PSDA	10000 ppb
					PFC ST 01121	0.1 mL	PFO2HxA	10000 ppb
					PFC ST 01122	0.1 mL	NVHOS	10000 ppb
					PFC ST 01124	0.1 mL	PFO3OA	10000 ppb
					PFC ST 01127	0.1 mL	PFO4DA	10000 ppb
					PFC ST 01128	0.1 mL	Hydro-EVE Acid	10000 ppb
					PFC ST 01129	0.1 mL	EVE Acid	10000 ppb
					PFC ST 01130	0.1 mL	R-PSDCA	10000 ppb
					PFC ST 01131	0.1 mL	Hydro-PS Acid	10000 ppb
					PFC ST 01132	0.1 mL	PS Acid	10000 ppb
					PFC ST 01133	0.1 mL	TAF	10000 ppb
					PFC ST 01134	0.1 mL	PMPA	10000 ppb
					PFC ST 01135	0.1 mL	PEPA	10000 ppb
...PFC ST 00199	02/26/23		Chemours, Lot N/A		(Purchased Reagent)		PFECA G	1000000 ug/L
...PFC ST 00329	02/26/23		Chemours, Lot N/A		(Purchased Reagent)		PF Acid	1000000 ug/L
...PFC ST 00332	02/26/23		Chemours, Lot N/A		(Purchased Reagent)		MTP	1000000 ug/L
...PFC ST 01117	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFMOAA	1000000 ug/L
...PFC ST 01118	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-EVE	1000000 ug/L
...PFC ST 01119	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-PSDA	1000000 ug/L
...PFC ST 01120	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydrolyzed PSDA	1000000 ug/L
...PFC ST 01121	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFO2HxA	1000000 ug/L
...PFC ST 01122	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		NVHOS	1000000 ug/L
...PFC ST 01124	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFO3OA	1000000 ug/L
...PFC ST 01127	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFO4DA	1000000 ug/L
...PFC ST 01128	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydro-EVE Acid	1000000 ug/L
...PFC ST 01129	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		EVE Acid	1000000 ug/L
...PFC ST 01130	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-PSDCA	1000000 ug/L
...PFC ST 01131	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydro-PS Acid	1000000 ug/L
...PFC ST 01132	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PS Acid	1000000 ug/L
...PFC ST 01133	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		TAF	1000000 ug/L
...PFC ST 01134	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PMPA	1000000 ug/L
...PFC ST 01135	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PEPA	1000000 ug/L
.PFC_ST_01219	01/13/26	Wellington Laboratories, Lot MPFACCES0121			(Purchased Reagent)		13C2 PFTeDA	2000 ppb
							13C2-PFDoDA	2000 ppb
							13C3 PFBS	1860 ppb
							13C3 PFHxS	1892 ppb
							13C4 PFBA	2000 ppb
							13C4 PFHpA	2000 ppb
							13C5 PFHxA	2000 ppb
							13C5 PFPeA	2000 ppb
							13C6 PFDA	2000 ppb
							13C7 PFUnA	2000 ppb
							13C8 PFOA	2000 ppb
							13C8 PFOS	1912 ppb
							13C9 PFNA	2000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.PFC_ST_01249	04/26/26	Wellington Laboratories, Lot MPFACCIS0516			(Purchased Reagent)		13C2 PFDA	2000 ng/mL
							13C2 PFOA	2000 ng/mL
							13C3-PFBA	2000 ng/mL
							13C4 PFOS	1913 ng/mL
.PFC_ST_01549	06/01/24	Wellington Laboratories, Lot 537PDSR10521			(Purchased Reagent)		11C1-PF3OUds	1860 ng/mL
							9C1-PF3ONS	1860 ng/mL
							DONA	1890 ng/mL
							HFPODA	2000 ng/mL
							NEtFOSAA	2000 ng/mL
							NMeFOSAA	2000 ng/mL
							Perfluorobutanesulfonic acid	1770 ng/mL
							Perfluorodecanoic acid	2000 ng/mL
							Perfluorododecanoic acid	2000 ng/mL
							Perfluoroheptanoic acid	2000 ng/mL
							Perfluorohexanesulfonic acid	1824 ng/mL
							Perfluorohexanoic acid	2000 ng/mL
							Perfluorononanoic acid	2000 ng/mL
							Perfluorooctanesulfonic acid	1851 ng/mL
							Perfluorooctanoic acid	2000 ng/mL
							Perfluorotetradecanoic acid	2000 ng/mL
							Perfluorotridecanoic acid	2000 ng/mL
Perfluoroundecanoic acid	2000 ng/mL							
PFC_STD_XMOD7_00018	09/10/22	06/10/22	Methanol, Lot ED663-US	10 mL	PFC_IN_00699	0.5 mL	Perfluorooctadecanoic acid	100 ppb
							N-ethylperfluoro-1-octanesulfo namide	100 ppb
							NMeFOSA	100 ppb
							1H,1H,2H,2H-perfluorodecanesul fonic acid (8:2)	95.8 ppb
							1H,1H,2H,2H-perfluorododecanes ulfonic acid (10:2)	96.4 ppb
							2- (N-ethylperfluoro-1-octanesulf onamido) ethanol	100 ppb
							2- (N-methylperfluoro-1-octanesul fonamido) ethanol	100 ppb
							Perfluorododecanesulfonic acid (PFDoS)	96.8 ppb
							Perfluorohexadecanoic acid	100 ppb
							Perfluorooctanesulfonamide	100 ppb
							1H,1H,2H,2H-perfluorohexanesul fonic acid (4:2)	93.4 ppb
							1H,1H,2H,2H-perfluorooctanesul fonic acid (6:2)	94.8 ppb
							Perfluorobutanoic acid	100 ppb
							Perfluoropentanoic acid	100 ppb
							Perfluorodecanesulfonic acid	96.4 ppb
							Perfluoroheptanesulfonic acid	95.2 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorononanesulfonic acid	96 ppb
							Perfluoropentanesulfonic acid	93.8 ppb
					PFC_IN_00700	0.5 mL	3:3 FTCA	100 ppb
							5:3 FTCA	100 ppb
							7:3 FTCA	100 ppb
							6:2 FTCA	100 ppb
							8:2 FTCA	100 ppb
							10:2 FTCA	100 ppb
							PFECA F	100 ppb
							PFECA A	100 ppb
							PFECA B	100 ppb
							PES	89 ppb
							PFECHS	92.2 ppb
							PFPoS	91.6 ppb
							6:2 FTUCA	100 ppb
							8:2 FTUCA	100 ppb
							10:2 FTUCA	100 ppb
					PFC_IN_00701	0.05 mL	d5-NetPFOSA	10 ppb
							13C3 HFPO-DA	10 ppb
							M2-8:2 FTS	9.58 ppb
							M2-6:2 FTS	9.5 ppb
							d3-NMePFOSA	10 ppb
							13C-6:2 FTCA	10 ppb
							13C-10:2 FTCA	10 ppb
							13C-8:2 FTCA	10 ppb
							d3-NMeFOSAA	10 ppb
							d5-NetFOSAA	10 ppb
							d7-N-MeFOSE-M	10 ppb
							d9-N-EtFOSE-M	10 ppb
							13C8 FOSA	10 ppb
							M2-4:2 FTS	9.34 ppb
							13C-6:2 FTUCA	10 ppb
							13C-8:2 FTUCA	10 ppb
							13C-10:2 FTUCA	10 ppb
					PFC_IN_00702	0.5 mL	PFECA G	100 ppb
							PPF Acid	100 ppb
							MTP	100 ppb
							PFMOAA	100 ppb
							R-EVE	100 ppb
							R-PSDA	100 ppb
							Hydrolyzed PSDA	100 ppb
							PFO2HxA	100 ppb
							NVHOS	100 ppb
							PFO3OA	100 ppb
							PFO4DA	100 ppb
							Hydro-EVE Acid	100 ppb
							EVE Acid	100 ppb
							R-PSDCA	100 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration	
					Reagent ID	Volume Added			
							Hydro-PS Acid	100 ppb	
							PS Acid	100 ppb	
							TAF	100 ppb	
							PMPA	100 ppb	
							PEPA	100 ppb	
						PFC_ST_01219	0.05 mL	13C2 PFTeDA	10 ppb
								13C2-PFDoDA	10 ppb
								13C3 PFBS	9.3 ppb
								13C3 PFHxS	9.46 ppb
								13C4 PFBA	10 ppb
								13C4 PFHpA	10 ppb
								13C5 PFHxA	10 ppb
								13C5 PFPeA	10 ppb
								13C6 PFDA	10 ppb
								13C7 PFUnA	10 ppb
					13C8 PFOA	10 ppb			
					13C8 PFOS	9.56 ppb			
					13C9 PFNA	10 ppb			
					PFC_ST_01249	0.025 mL	13C2 PFDA	5 ppb	
							13C2 PFOA	5 ppb	
							13C3-PFBA	5 ppb	
					PFC_ST_01549	0.5 mL	13C4 PFOS	4.7825 ppb	
							11C1-PF3OUds	93 ppb	
							9C1-PF3ONS	93 ppb	
							DONA	94.5 ppb	
							HFPODA	100 ppb	
							NEtFOSAA	100 ppb	
							NMeFOSAA	100 ppb	
							Perfluorobutanesulfonic acid	88.5 ppb	
							Perfluorodecanoic acid	100 ppb	
							Perfluorododecanoic acid	100 ppb	
							Perfluoroheptanoic acid	100 ppb	
							Perfluorohexanesulfonic acid	91.2 ppb	
Perfluorohexanoic acid	100 ppb								
Perfluorononanoic acid	100 ppb								
Perfluorooctanesulfonic acid	92.55 ppb								
Perfluorooctanoic acid	100 ppb								
Perfluorotetradecanoic acid	100 ppb								
Perfluorotridecanoic acid	100 ppb								
Perfluoroundecanoic acid	100 ppb								
.PFC_IN_00699	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_00747	0.2 mL	Perfluorooctadecanoic acid	2000 ng/mL	
					PFC_ST_00971	0.2 mL	N-ethylperfluoro-1-octanesulfo namide	2000 ng/mL	
					PFC_ST_00972	0.2 mL	NMeFOSA	2000 ng/mL	
					PFC_ST_00976	0.2 mL	1H,1H,2H,2H-perfluorodecanesul fonic acid (8:2)	1916 ng/mL	
					PFC_ST_00977	0.2 mL	1H,1H,2H,2H-perfluorododecanes ulfonic acid (10:2)	1928 ng/mL	

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_01073	0.2 mL	2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	2000 ng/mL
					PFC_ST_01082	0.2 mL	2-(N-methylperfluoro-1-octanesulfonamido) ethanol	2000 ng/mL
					PFC_ST_01224	0.2 mL	Perfluorododecanesulfonic acid (PFDoS)	1936 ng/mL
					PFC_ST_01226	0.2 mL	Perfluorohexadecanoic acid	2000 ng/mL
					PFC_ST_01227	0.2 mL	Perfluorooctanesulfonamide	2000 ng/mL
					PFC_ST_01228	0.2 mL	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	1868 ng/mL
					PFC_ST_01229	0.2 mL	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1896 ng/mL
					PFC_ST_01232	0.2 mL	Perfluorobutanoic acid	2000 ng/mL
					PFC_ST_01233	0.2 mL	Perfluoropentanoic acid	2000 ng/mL
					PFC_ST_01234	0.2 mL	Perfluorodecanesulfonic acid	1928 ng/mL
					PFC_ST_01235	0.2 mL	Perfluoroheptanesulfonic acid	1904 ng/mL
					PFC_ST_01236	0.2 mL	Perfluorononanesulfonic acid	1920 ng/mL
					PFC_ST_01237	0.2 mL	Perfluoropentanesulfonic acid	1876 ng/mL
..PFC_ST_00747	11/13/25	Wellington Laboratories, Lot PFODA1020			(Purchased Reagent)		Perfluorooctadecanoic acid	50000 ng/mL
..PFC_ST_00971	11/23/25	Wellington Laboratories, Lot NETFOSA1120M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50000 ng/mL
..PFC_ST_00972	10/20/25	Wellington Laboratories, Lot NMeFOSA1020M			(Purchased Reagent)		NMeFOSA	50000 ng/mL
..PFC_ST_00976	12/01/25	Wellington Laboratories, Lot 82FTS1120			(Purchased Reagent)		1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	47900 ng/mL
..PFC_ST_00977	03/03/26	Wellington Laboratories, Lot 102FTS0221			(Purchased Reagent)		1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)	48200 ng/mL
..PFC_ST_01073	06/02/26	Wellington Laboratories, Lot NETFOSE0521M			(Purchased Reagent)		2-(N-ethylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
..PFC_ST_01082	06/02/26	Wellington Laboratories, Lot NMeFOSE0521M			(Purchased Reagent)		2-(N-methylperfluoro-1-octanesulfonamido) ethanol	50000 ng/mL
..PFC_ST_01224	02/16/23	Wellington Laboratories, Lot LPFDoS0721			(Purchased Reagent)		Perfluorododecanesulfonic acid (PFDoS)	48400 ng/mL
..PFC_ST_01226	05/07/26	Wellington Laboratories, Lot PFHxDA0421			(Purchased Reagent)		Perfluorohexadecanoic acid	50000 ng/mL
..PFC_ST_01227	08/10/26	Wellington Laboratories, Lot FOSA0721I			(Purchased Reagent)		Perfluorooctanesulfonamide	50000 ng/mL
..PFC_ST_01228	10/04/26	Wellington Laboratories, Lot 42FTS0921			(Purchased Reagent)		1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	46700 ng/mL
..PFC_ST_01229	06/09/26	Wellington Laboratories, Lot 62FTS0521			(Purchased Reagent)		1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47400 ng/mL
..PFC_ST_01232	10/04/26	Wellington Laboratories, Lot PFBA1021			(Purchased Reagent)		Perfluorobutanoic acid	50000 ng/mL
..PFC_ST_01233	08/10/26	Wellington Laboratories, Lot PFPeA0721			(Purchased Reagent)		Perfluoropentanoic acid	50000 ng/mL
..PFC_ST_01234	08/19/26	Wellington Laboratories, Lot LPFDS0821			(Purchased Reagent)		Perfluorodecanesulfonic acid	48200 ng/mL
..PFC_ST_01235	07/09/26	Wellington Laboratories, Lot LPFHpS0721			(Purchased Reagent)		Perfluoroheptanesulfonic acid	47600 ng/mL
..PFC_ST_01236	10/19/26	Wellington Laboratories, Lot LPFNS1021			(Purchased Reagent)		Perfluorononanesulfonic acid	48000 ng/mL
..PFC_ST_01237	07/12/26	Wellington Laboratories, Lot LPFPeS0721			(Purchased Reagent)		Perfluoropentanesulfonic acid	46900 ng/mL
..PFC_IN_00700	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC_ST_01094	0.2 mL	3:3 FTCA	2000 ppb
					PFC_ST_01095	0.2 mL	5:3 FTCA	2000 ppb

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC ST 01096	0.2 mL	7:3 FTCA	2000 ppb
					PFC ST 01097	0.2 mL	6:2 FTCA	2000 ppb
					PFC ST 01098	0.2 mL	8:2 FTCA	2000 ppb
					PFC ST 01099	0.2 mL	10:2 FTCA	2000 ppb
					PFC ST 01103	0.2 mL	PFECA F	2000 ppb
					PFC ST 01104	0.2 mL	PFECA A	2000 ppb
					PFC ST 01105	0.2 mL	PFECA B	2000 ppb
					PFC ST 01106	0.2 mL	PES	1780 ppb
					PFC ST 01107	0.2 mL	PFECHS	1844 ppb
					PFC ST 01223	0.2 mL	PFPPrS	1832 ppb
					PFC ST 01367	0.2 mL	6:2 FTUCA	2000 ppb
					PFC ST 01368	0.2 mL	8:2 FTUCA	2000 ppb
					PFC ST 01369	0.2 mL	10:2 FTUCA	2000 ppb
..PFC ST 01094	11/12/25		Wellington Laboratories, Lot FFRPA1020		(Purchased Reagent)		3:3 FTCA	50000 ng/mL
..PFC ST 01095	11/11/25		Wellington Laboratories, Lot FPePA1120		(Purchased Reagent)		5:3 FTCA	50000 ng/mL
..PFC ST 01096	11/12/25		Wellington Laboratories, Lot FHpPA1020		(Purchased Reagent)		7:3 FTCA	50000 ng/mL
..PFC ST 01097	03/08/24		Wellington Laboratories, Lot FHEA0321		(Purchased Reagent)		6:2 FTCA	50000 ng/mL
..PFC ST 01098	08/18/24		Wellington Laboratories, Lot FOEA0821		(Purchased Reagent)		8:2 FTCA	50000 ng/mL
..PFC ST 01099	07/07/23		Wellington Laboratories, Lot FDEA0720		(Purchased Reagent)		10:2 FTCA	50000 ng/mL
..PFC ST 01103	03/31/25		Wellington Laboratories, Lot PF40PeA0320		(Purchased Reagent)		PFECA F	50000 ng/mL
..PFC ST 01104	03/31/25		Wellington Laboratories, Lot PF5OHxA0320		(Purchased Reagent)		PFECA A	50000 ng/mL
..PFC ST 01105	03/31/25		Wellington Laboratories, Lot 36OPFHpa0320		(Purchased Reagent)		PFECA B	50000 ng/mL
..PFC ST 01106	05/13/25		Wellington Laboratories, Lot PFEESA0520		(Purchased Reagent)		PES	44500 ppb
..PFC ST 01107	04/06/26		Wellington Laboratoires, Lot PFECHS0421		(Purchased Reagent)		PFECHS	46100 ppb
..PFC ST 01223	07/12/26		Wellington Laboratories, Lot LPPPrS0721		(Purchased Reagent)		PFPPrS	45800 ppb
..PFC ST 01367	09/03/23		Wellington Laboratories, Lot FHUEA0921		(Purchased Reagent)		6:2 FTUCA	50000 ng/mL
..PFC ST 01368	03/29/23		Wellington Laboratories, Lot FOUEA0321		(Purchased Reagent)		8:2 FTUCA	50000 ng/mL
..PFC ST 01369	03/29/23		Wellington Laboratories, Lot FDUEA1021		(Purchased Reagent)		10:2 FTUCA	50000 ng/mL
.PFC_IN_00701	12/09/22	06/09/22	Methanol, Lot ED319-US	5 mL	PFC ST 00981	0.2 mL	d5-NETPFOSA	2000 ppb
					PFC ST 00984	0.2 mL	13C3 HFPO-DA	2000 ppb
					PFC ST 00985	0.2 mL	M2-8:2 FTS	1916 ppb
					PFC ST 00986	0.2 mL	M2-6:2 FTS	1900 ppb
					PFC ST 01081	0.2 mL	d3-NMePFOSA	2000 ppb
					PFC ST 01108	0.2 mL	13C-6:2 FTCA	2000 ppb
					PFC ST 01109	0.2 mL	13C-10:2 FTCA	2000 ppb
					PFC ST 01113	0.2 mL	13C-8:2 FTCA	2000 ppb
					PFC ST 01215	0.2 mL	d3-NMeFOSAA	2000 ppb
					PFC ST 01216	0.2 mL	d5-NetFOSAA	2000 ppb
					PFC ST 01293	0.2 mL	d7-N-MeFOSE-M	2000 ppb
					PFC ST 01295	0.2 mL	d9-N-EtFOSE-M	2000 ppb
					PFC ST 01411	0.2 mL	13C8 FOSA	2000 ppb
					PFC ST 01412	0.2 mL	M2-4:2 FTS	1868 ppb
					PFC ST 01467	0.2 mL	13C-6:2 FTUCA	2000 ppb
					PFC ST 01468	0.2 mL	13C-8:2 FTUCA	2000 ppb
					PFC ST 01469	0.2 mL	13C-10:2 FTUCA	2000 ppb
..PFC_ST_00981	11/23/25		Wellington Laboratories, Lot dNetFOSA1120M		(Purchased Reagent)		d5-NETPFOSA	50000 ng/mL
..PFC ST 00984	05/13/24		Wellington Laboratories, Lot M3HFPODA0521		(Purchased Reagent)		13C3 HFPO-DA	50000 ng/mL

REAGENT TRACEABILITY SUMMARY

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..PFC ST 00985	12/17/25		Wellington Laboratories, Lot M282FTS1220		(Purchased Reagent)		M2-8:2 FTS	47900 ng/mL
..PFC ST 00986	05/14/26		Wellington Laboratories, Lot M262FTS0521		(Purchased Reagent)		M2-6:2 FTS	47500 ng/mL
..PFC_ST_01081	04/04/23		Wellington Laboratories, Lot dNMeFOSA0421M		(Purchased Reagent)		d3-NMePFOSA	50000 ng/mL
..PFC ST 01108	04/04/23		Wellington Laboratories, Lot MFHEA0421		(Purchased Reagent)		13C-6:2 FTCA	50000 ppb
..PFC ST 01109	04/04/23		Wellington Laboratories, Lot MFDEA0817		(Purchased Reagent)		13C-10:2 FTCA	50000 ppb
..PFC ST 01113	04/04/23		Wellington Laboratories, Lot MFOEA1020		(Purchased Reagent)		13C-8:2 FTCA	50000 ppb
..PFC_ST_01215	04/04/23		Wellington Laboratories, Lot d3NMeFOSAA0521		(Purchased Reagent)		d3-NMeFOSAA	50000 ng/mL
..PFC_ST_01216	04/04/23		Wellington Laboratories, Lot d5NEtFOSAA0921		(Purchased Reagent)		d5-NEtFOSAA	50000 ng/mL
..PFC_ST_01293	02/10/23		Wellington Laboratories, Lot d7NMeFOSE1220M		(Purchased Reagent)		d7-N-MeFOSE-M	50000 ng/mL
..PFC_ST_01295	02/10/23		Wellington Laboratories, Lot d9NEtFOSE1220M		(Purchased Reagent)		d9-N-EtFOSE-M	50000 ng/mL
..PFC ST 01411	10/12/26		Wellington Laboratories, Lot M8FOSA0921I		(Purchased Reagent)		13C8 FOSA	50000 ng/mL
..PFC ST 01412	10/13/26		Wellington Laboratories, Lot M242FTS01021		(Purchased Reagent)		M2-4:2 FTS	46700 ng/mL
..PFC ST 01467	03/22/23		Wellington Laboratories, Lot MFHUEA0322		(Purchased Reagent)		13C-6:2 FTUCA	50000 ppb
..PFC ST 01468	03/22/23		Wellington Laboratories, Lot MFOUEA1121		(Purchased Reagent)		13C-8:2 FTUCA	50000 ppb
..PFC ST 01469	03/22/23		Wellington Laboratories, Lot MFDUEA1221		(Purchased Reagent)		13C-10:2 FTUCA	50000 ppb
.PFC_IN_00702	10/13/22	06/10/22	Methanol, Lot ED663-US	5 mL	PFC_IN_00698	1 mL	PFECA G	2000 ppb
							PPF Acid	2000 ppb
							MTP	2000 ppb
							PFMOAA	2000 ppb
							R-EVE	2000 ppb
							R-PSDA	2000 ppb
							Hydrolyzed PSDA	2000 ppb
							PFO2HxA	2000 ppb
							NVHOS	2000 ppb
							PFO3OA	2000 ppb
							PFO4DA	2000 ppb
							Hydro-EVE Acid	2000 ppb
							EVE Acid	2000 ppb
							R-PSDCA	2000 ppb
							Hydro-PS Acid	2000 ppb
							PS Acid	2000 ppb
							TAF	2000 ppb
							PMPA	2000 ppb
							PEPA	2000 ppb
..PFC_IN_00698	10/13/22	06/09/22	Methanol, Lot ED319-US	10 mL	PFC ST 00199	0.1 mL	PFECA G	10000 ppb
					PFC ST 00329	0.1 mL	PPF Acid	10000 ppb
					PFC ST 00332	0.1 mL	MTP	10000 ppb
					PFC ST 01117	0.1 mL	PFMOAA	10000 ppb
					PFC ST 01118	0.1 mL	R-EVE	10000 ppb
					PFC ST 01119	0.1 mL	R-PSDA	10000 ppb
					PFC ST 01120	0.1 mL	Hydrolyzed PSDA	10000 ppb
					PFC ST 01121	0.1 mL	PFO2HxA	10000 ppb
					PFC_ST_01122	0.1 mL	NVHOS	10000 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					PFC_ST_01124	0.1 mL	PFO30A	10000 ppb
					PFC_ST_01127	0.1 mL	PFO4DA	10000 ppb
					PFC_ST_01128	0.1 mL	Hydro-EVE Acid	10000 ppb
					PFC_ST_01129	0.1 mL	EVE Acid	10000 ppb
					PFC_ST_01130	0.1 mL	R-PSDCA	10000 ppb
					PFC_ST_01131	0.1 mL	Hydro-PS Acid	10000 ppb
					PFC_ST_01132	0.1 mL	PS Acid	10000 ppb
					PFC_ST_01133	0.1 mL	TAF	10000 ppb
					PFC_ST_01134	0.1 mL	PMPA	10000 ppb
					PFC_ST_01135	0.1 mL	PEPA	10000 ppb
...PFC_ST_00199	02/26/23		Chemours, Lot N/A		(Purchased Reagent)		PFECA G	1000000 ug/L
...PFC_ST_00329	02/26/23		Chemours, Lot N/A		(Purchased Reagent)		PPF Acid	1000000 ug/L
...PFC_ST_00332	02/26/23		Chemours, Lot N/A		(Purchased Reagent)		MTP	1000000 ug/L
...PFC_ST_01117	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFMOAA	1000000 ug/L
...PFC_ST_01118	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-EVE	1000000 ug/L
...PFC_ST_01119	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-PSDA	1000000 ug/L
...PFC_ST_01120	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydrolyzed PSDA	1000000 ug/L
...PFC_ST_01121	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PF02HxA	1000000 ug/L
...PFC_ST_01122	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		NVHOS	1000000 ug/L
...PFC_ST_01124	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFO30A	1000000 ug/L
...PFC_ST_01127	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PFO4DA	1000000 ug/L
...PFC_ST_01128	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydro-EVE Acid	1000000 ug/L
...PFC_ST_01129	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		EVE Acid	1000000 ug/L
...PFC_ST_01130	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		R-PSDCA	1000000 ug/L
...PFC_ST_01131	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		Hydro-PS Acid	1000000 ug/L
...PFC_ST_01132	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PS Acid	1000000 ug/L
...PFC_ST_01133	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		TAF	1000000 ug/L
...PFC_ST_01134	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PMPA	1000000 ug/L
...PFC_ST_01135	10/13/22		Chemours, Lot N/A		(Purchased Reagent)		PEPA	1000000 ug/L
.PFC_ST_01219	01/13/26	Wellington Laboratories, Lot MPFACCES0121			(Purchased Reagent)		13C2 PFTeDA	2000 ppb
							13C2-PFDoDA	2000 ppb
							13C3 PFBS	1860 ppb
							13C3 PFHxS	1892 ppb
							13C4 PFBA	2000 ppb
							13C4 PFHpA	2000 ppb
							13C5 PFHxA	2000 ppb
							13C5 PFPeA	2000 ppb
							13C6 PFDA	2000 ppb
							13C7 PFUnA	2000 ppb
							13C8 PFOA	2000 ppb
							13C8 PFOS	1912 ppb
							13C9 PFNA	2000 ppb
.PFC_ST_01249	04/26/26	Wellington Laboratories, Lot MPFACCIS0516			(Purchased Reagent)		13C2 PFDA	2000 ng/mL
							13C2 PFOA	2000 ng/mL
							13C3-PFBA	2000 ng/mL
							13C4 PFOS	1913 ng/mL
.PFC_ST_01549	06/01/24	Wellington Laboratories, Lot 537PDSR10521			(Purchased Reagent)		11C1-PF3OUds	1860 ng/mL
							9C1-PF3ONS	1860 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							DONA	1890 ng/mL
							HFPODA	2000 ng/mL
							NEtFOSAA	2000 ng/mL
							NMeFOSAA	2000 ng/mL
							Perfluorobutanesulfonic acid	1770 ng/mL
							Perfluorodecanoic acid	2000 ng/mL
							Perfluorododecanoic acid	2000 ng/mL
							Perfluoroheptanoic acid	2000 ng/mL
							Perfluorohexanesulfonic acid	1824 ng/mL
							Perfluorohexanoic acid	2000 ng/mL
							Perfluorononanoic acid	2000 ng/mL
							Perfluorooctanesulfonic acid	1851 ng/mL
							Perfluorooctanoic acid	2000 ng/mL
							Perfluorotetradecanoic acid	2000 ng/mL
							Perfluorotridecanoic acid	2000 ng/mL
							Perfluoroundecanoic acid	2000 ng/mL

Method PFC IDA

Fluorinated Hydrocarbons by Method
PFAS IDA

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	C3PFBS #	13C5PHA #	HFPODA #	C3PFHS #	C4PFHA #	C8PFOA #	C8PFOS #	C9PFNA #
MSA-WC-MTW-061522	240-168405-1	174	70	64	116	79	91	86	67
MSA-WC-MTW-061522 RA	240-168405-1 RA	176	71	67	113	82	96	82	66
	MB 410-269643/1-A	91	91	81	88	96	89	96	92
	LCS 410-269643/2-A	92	96	93	96	100	96	90	92

	<u>QC LIMITS</u>
C3PFBS = 13C3 PFBS	16-200
13C5PHA = 13C5 PFHxA	24-179
HFPODA = 13C3 HFPO-DA	17-185
C3PFHS = 13C3 PFHxS	28-188
C4PFHA = 13C4 PFHpA	31-182
C8PFOA = 13C8 PFOA	48-162
C8PFOS = 13C8 PFOS	51-159
C9PFNA = 13C9 PFNA	51-167

Column to be used to flag recovery values

FORM II
PFAS SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	C6PFDA #	d3NMFOS #	13C7PUA #	d5NEFOS #	PFDODA #	PFTDA #
MSA-WC-MTW-061522	240-168405-1	78	58	79	65	74	59
MSA-WC-MTW-061522 RA	240-168405-1 RA	86	64	78	70	73	62
	MB 410-269643/1-A	86	81	86	78	80	76
	LCS 410-269643/2-A	97	91	98	84	94	95

	<u>QC LIMITS</u>
C6PFDA = 13C6 PFDA	49-163
d3NMFOS = d3-NMeFOSAA	31-174
13C7PUA = 13C7 PUnA	34-174
d5NEFOS = d5-NEtFOSAA	29-195
PFDODA = 13C2-PFDODA	17-176
PFTDA = 13C2 PFTeDA	10-179

Column to be used to flag recovery values

FORM II 537 IDA

FORM III
PFAS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories
Environment Testing, LLC

Job No.: 240-168405-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: 22JUL02-03.d

Lab ID: LCS 410-269643/2-A

Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorohexanoic acid	25.6	23.1	90	58-139	
Perfluoroheptanoic acid	25.6	22.3	87	59-145	
Perfluorooctanoic acid	25.6	24.2	95	51-145	
Perfluorononanoic acid	25.6	25.3	99	61-139	
Perfluorodecanoic acid	25.6	24.5	96	56-138	
Perfluorotridecanoic acid	25.6	21.0	82	58-146	
Perfluorotetradecanoic acid	25.6	22.8	89	62-139	
Perfluorobutanesulfonic acid	22.7	21.7	96	53-138	
Perfluorohexanesulfonic acid	23.3	18.8	80	58-134	
Perfluorooctanesulfonic acid	23.7	23.4	99	45-150	
NEtFOSAA	25.6	23.5	92	55-134	
NMeFOSAA	25.6	24.9	97	59-140	
Perfluorododecanoic acid	25.6	23.6	92	59-143	
HFPODA	25.6	21.2	83	50-135	
9Cl-PF3ONS	23.8	22.4	94	59-135	
11Cl-PF3OUdS	23.8	22.5	95	53-139	
DONA	24.2	22.3	92	55-143	
13C5 PFHxA	40.0	38.3	96	24-179	
13C4 PFHpA	40.0	39.9	100	31-182	
13C8 PFOA	40.0	38.3	96	48-162	
13C9 PFNA	40.0	36.7	92	51-167	
13C6 PFDA	40.0	38.8	97	49-163	
13C2-PFDoDA	40.0	37.5	94	17-176	
13C2 PFTeDA	40.0	37.9	95	10-179	
13C3 PFBS	37.2	34.1	92	16-200	
13C3 PFHxS	37.8	36.3	96	28-188	
13C8 PFOS	38.2	34.5	90	51-159	
d3-NMeFOSAA	40.0	36.5	91	31-174	
d5-NEtFOSAA	40.0	33.7	84	29-195	
13C3 HFPO-DA	40.0	37.1	93	17-185	
13C7 PFUnA	40.0	39.1	98	34-174	
Perfluoroundecanoic acid	25.6	23.4	91	60-141	

Column to be used to flag recovery and RPD values

FORM III 537 IDA

FORM IV
PFAS METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1
Environment Testing, LLC

SDG No.: _____

Lab File ID: 22JUL02-02.d Lab Sample ID: MB 410-269643/1-A

Matrix: Water Date Extracted: 06/27/2022 09:03

Instrument ID: 30733 Date Analyzed: 07/02/2022 16:00

Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-269643/2-A	22JUL02-03. d	07/02/2022 16:13
MSA-WC-MTW-061522	240-168405-1	22JUL02-04. d	07/02/2022 16:24
MSA-WC-MTW-061522 RA	240-168405-1 RA	22JUL06-05. d	07/06/2022 12:07

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-168405-1
 SDG No.: _____
 Instrument ID: 30733 Calibration Start Date: 07/01/2022 13:08
 GC Column: Gemini C18 50mm ID: 3 (mm) Calibration End Date: 07/01/2022 14:15
 Calibration ID: 40358

	13C3PFBA		13PFOA		PFOS		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MEAN AREA AND MEAN RT	922691	3.84	1094207	5.54	1411986	5.86	
UPPER LIMIT	1384037	4.24	1641311	5.94	2117979	6.26	
LOWER LIMIT	461346	3.44	547104	5.14	705993	5.46	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 410-271695/8	851151	3.84	1077565	5.53	1289136	5.86	
ICV 410-271695/9	887495	3.84	1136470	5.53	1291391	5.86	
CCV 410-271895/1	919906	3.83	1056013	5.53	1282860	5.86	
MB 410-269643/1-A	1074539	3.85	1274719	5.55	1556744	5.87	
LCS 410-269643/2-A	1088495	3.84	1319257	5.54	1635053	5.86	
240-168405-1	MSA-WC-MTW-061522	306304*3	3.84	671818	5.55	1258729	5.86
CCV 410-271895/14	932097	3.84	1165014	5.54	1381053	5.86	

13C3PFBA = 13C3-PFBA
 13PFOA = 13C2 PFOA
 PFOS = 13C4 PFOS

Area Limit = 50%-150% of internal standard area
 RT Limit = ± 0.4 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-168405-1
 SDG No.: _____
 Instrument ID: 30733 Calibration Start Date: 07/01/2022 13:08
 GC Column: Gemini C18 50mm ID: 3(mm) Calibration End Date: 07/01/2022 14:15
 Calibration ID: 40358

		PFDA					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		962003	6.19				
UPPER LIMIT		1443005	6.59				
LOWER LIMIT		481002	5.79				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 410-271695/8		920321	6.18				
ICV 410-271695/9		954982	6.18				
CCV 410-271895/1		961066	6.18				
MB 410-269643/1-A		1161259	6.19				
LCS 410-269643/2-A		1120252	6.17				
240-168405-1	MSA-WC-MTW-061522	907617	6.18				
CCV 410-271895/14		1003116	6.17				

PFDA = 13C2 PFDA

Area Limit = 50%-150% of internal standard area
 RT Limit = ± 0.4 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-168405-1
 SDG No.: _____
 Instrument ID: 30733 Calibration Start Date: 07/04/2022 16:15
 GC Column: Gemini C18 50mm ID: 3(mm) Calibration End Date: 07/04/2022 17:22
 Calibration ID: 40369

	13C3PFBA		13PFOA		PFOS		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MEAN AREA AND MEAN RT	840043	3.84	1003572	5.54	1340649	5.86	
UPPER LIMIT	1260065	4.24	1505358	5.94	2010974	6.26	
LOWER LIMIT	420022	3.44	501786	5.14	670325	5.46	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 410-272051/8	757376	3.84	966412	5.53	1187158	5.86	
ICV 410-272051/9	787223	3.84	961449	5.54	1200347	5.86	
CCV 410-272691/4	841845	3.84	949660	5.54	1207895	5.86	
240-168405-1 RA	MSA-WC-MTW-061522 RA	295065*3	3.83	660493	5.54	1263676	5.86
CCV 410-272691/11	831505	3.84	1055426	5.54	1351326	5.86	

13C3PFBA = 13C3-PFBA
 13PFOA = 13C2 PFOA
 PFOS = 13C4 PFOS

Area Limit = 50%-150% of internal standard area
 RT Limit = ± 0.4 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
PFAS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 240-168405-1
 SDG No.: _____
 Instrument ID: 30733 Calibration Start Date: 07/04/2022 16:15
 GC Column: Gemini C18 50mm ID: 3(mm) Calibration End Date: 07/04/2022 17:22
 Calibration ID: 40369

		PFDA					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		937105	6.18				
UPPER LIMIT		1405658	6.58				
LOWER LIMIT		468553	5.78				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 410-272051/8		796894	6.17				
ICV 410-272051/9		810203	6.17				
CCV 410-272691/4		886821	6.18				
240-168405-1 RA	MSA-WC-MTW-061522 RA	918742	6.17				
CCV 410-272691/11		931518	6.18				

PFDA = 13C2 PFDA

Area Limit = 50%-150% of internal standard area
 RT Limit = ± 0.4 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories
Environment Testing, LLC

Job No.: 240-168405-1

SDG No.:

Client Sample ID: MSA-WC-MTW-061522

Lab Sample ID: 240-168405-1

Matrix: Water

Lab File ID: 22JUL02-04.d

Analysis Method: 537 IDA

Date Collected: 06/15/2022 11:00

Extraction Method: 537 IDA

Date Extracted: 06/27/2022 09:03

Sample wt/vol: 289.7(mL)

Date Analyzed: 07/02/2022 16:24

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 4(uL)

GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: % Solids:

GPC Cleanup: (Y/N) N

Cleanup Factor:

Analysis Batch No.: 271895

Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	22		1.7	0.43
375-85-9	Perfluoroheptanoic acid	15		1.7	0.43
335-67-1	Perfluorooctanoic acid	8.5		1.7	0.43
375-95-1	Perfluorononanoic acid	3.2		1.7	0.43
335-76-2	Perfluorodecanoic acid	1.3	J	1.7	0.43
72629-94-8	Perfluorotridecanoic acid	0.43	U	1.7	0.43
376-06-7	Perfluorotetradecanoic acid	0.43	U	1.7	0.43
375-73-5	Perfluorobutanesulfonic acid	4.3	I	1.7	0.43
355-46-4	Perfluorohexanesulfonic acid	6.6		1.7	0.43
1763-23-1	Perfluorooctanesulfonic acid	2.4		1.7	0.43
2991-50-6	NEtFOSAA	0.43	U	2.6	0.43
2355-31-9	NMeFOSAA	0.52	U	1.7	0.52
307-55-1	Perfluorododecanoic acid	0.54	J	1.7	0.43
13252-13-6	HFPODA	0.92	J	2.6	0.86
756426-58-1	9Cl-PF3ONS	0.43	U	1.7	0.43
763051-92-9	11Cl-PF3OUdS	0.43	U	1.7	0.43
919005-14-4	DONA	0.43	U	1.7	0.43
2058-94-8	Perfluoroundecanoic acid	1.1	J	1.7	0.43

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: MSA-WC-MTW-061522 Lab Sample ID: 240-168405-1

Matrix: Water Lab File ID: 22JUL02-04.d

Analysis Method: 537 IDA Date Collected: 06/15/2022 11:00

Extraction Method: 537 IDA Date Extracted: 06/27/2022 09:03

Sample wt/vol: 289.7(mL) Date Analyzed: 07/02/2022 16:24

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 4(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____

Analysis Batch No.: 271895 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02577	13C5 PFHxA	70		24-179
STL01892	13C4 PFHpA	79		31-182
STL01052	13C8 PFOA	91		48-162
STL02578	13C9 PFNA	67		51-167
STL02579	13C6 PFDA	78		49-163
STL02703	13C2-PFD _o DA	74		17-176
STL02116	13C2 PFTeDA	59		10-179
STL02337	13C3 PFBS	174		16-200
STL02581	13C3 PFHxS	116		28-188
STL01054	13C8 PFOS	86		51-159
STL02118	d3-NMeFOSAA	58		31-174
STL02117	d5-NEtFOSAA	65		29-195
STL02255	13C3 HFPO-DA	64		17-185
STL02580	13C7 PFUnA	79		34-174

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories
Environment Testing, LLC

Job No.: 240-168405-1

SDG No.:

Client Sample ID: MSA-WC-MTW-061522 RA

Lab Sample ID: 240-168405-1 RA

Matrix: Water

Lab File ID: 22JUL06-05.d

Analysis Method: 537 IDA

Date Collected: 06/15/2022 11:00

Extraction Method: 537 IDA

Date Extracted: 06/27/2022 09:03

Sample wt/vol: 289.7(mL)

Date Analyzed: 07/06/2022 12:07

Con. Extract Vol.: 1(mL)

Dilution Factor: 1

Injection Volume: 4(uL)

GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: % Solids:

GPC Cleanup: (Y/N) N

Cleanup Factor:

Analysis Batch No.: 272691

Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	22		1.7	0.43
375-85-9	Perfluoroheptanoic acid	15		1.7	0.43
335-67-1	Perfluorooctanoic acid	7.3		1.7	0.43
375-95-1	Perfluorononanoic acid	3.4		1.7	0.43
335-76-2	Perfluorodecanoic acid	1.2	J	1.7	0.43
72629-94-8	Perfluorotridecanoic acid	0.43	U	1.7	0.43
376-06-7	Perfluorotetradecanoic acid	0.43	U	1.7	0.43
375-73-5	Perfluorobutanesulfonic acid	6.6	I	1.7	0.43
355-46-4	Perfluorohexanesulfonic acid	7.0		1.7	0.43
1763-23-1	Perfluorooctanesulfonic acid	2.3		1.7	0.43
2991-50-6	NEtFOSAA	0.43	U	2.6	0.43
2355-31-9	NMeFOSAA	0.52	U	1.7	0.52
307-55-1	Perfluorododecanoic acid	0.57	J	1.7	0.43
13252-13-6	HFPODA	0.86	U	2.6	0.86
756426-58-1	9Cl-PF3ONS	0.43	U	1.7	0.43
763051-92-9	11Cl-PF3OUs	0.43	U	1.7	0.43
919005-14-4	DONA	0.43	U	1.7	0.43
2058-94-8	Perfluoroundecanoic acid	1.0	J	1.7	0.43

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: MSA-WC-MTW-061522 RA Lab Sample ID: 240-168405-1 RA

Matrix: Water Lab File ID: 22JUL06-05.d

Analysis Method: 537 IDA Date Collected: 06/15/2022 11:00

Extraction Method: 537 IDA Date Extracted: 06/27/2022 09:03

Sample wt/vol: 289.7(mL) Date Analyzed: 07/06/2022 12:07

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 4(uL) GC Column: Gemini C18 50mm ID: 3(mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____

Analysis Batch No.: 272691 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02577	13C5 PFHxA	71		24-179
STL01892	13C4 PFHpA	82		31-182
STL01052	13C8 PFOA	96		48-162
STL02578	13C9 PFNA	66		51-167
STL02579	13C6 PFDA	86		49-163
STL02703	13C2-PFD _o DA	73		17-176
STL02116	13C2 PFTeDA	62		10-179
STL02337	13C3 PFBS	176		16-200
STL02581	13C3 PFHxS	113		28-188
STL01054	13C8 PFOS	82		51-159
STL02118	d3-NMeFOSAA	64		31-174
STL02117	d5-NEtFOSAA	70		29-195
STL02255	13C3 HFPO-DA	67		17-185
STL02580	13C7 PFUnA	78		34-174

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-271695/1	22JUL01XMCAL-01.d
Level 2	IC 410-271695/2	22JUL01XMCAL-02.d
Level 3	IC 410-271695/3	22JUL01XMCAL-03.d
Level 4	IC 410-271695/4	22JUL01XMCAL-04.d
Level 5	ICISAV 410-271695/5	22JUL01XMCAL-05.d
Level 6	IC 410-271695/6	22JUL01XMCAL-06.d
Level 7	IC 410-271695/7	22JUL01XMCAL-07.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															
MTP	0.0682 0.0667	0.0654 0.0714	0.0669	0.0613	0.0697	AveI D		0.067 1			4.8		20.0				
PPF Acid	0.4398 0.4037	0.3938 0.4034	0.4160	0.3734	0.4187	AveI D		0.407 0			5.1		20.0				
PFMOAA	0.2057 0.2028	0.1969 0.2037	0.2006	0.1893	0.2037	AveI D		0.200 4			2.8		20.0				
Perfluorobutanoic acid	1.0151 0.9122	0.9757 0.8799	0.9880	0.9083	0.9658	AveI D		0.949 3			5.2		20.0				
R-EVE	0.1571 0.1625	0.1640 0.1654	0.1574	0.1521	0.1593	AveI D		0.159 7			2.9		20.0				
R-PSDA	0.0287 0.0321	0.0303 0.0354	0.0272	0.0290	0.0297	AveI D		0.030 4			8.9		20.0				
Hydrolyzed PSDA	0.2106 0.1972	0.1982 0.2053	0.2018	0.1959	0.1942	AveI D		0.200 5			2.9		20.0				
PMPA	0.4395 0.4461	0.4684 0.4583	0.4851	0.4674	0.4973	AveI D		0.466 0			4.4		20.0				
Perfluoropropanesulfonic acid	0.4350 0.4334	0.4434 0.4310	0.4986	0.4418	0.4385	AveI D		0.446 0			5.3		20.0				
NVHOS	0.2827 0.2709	0.2825 0.2607	0.2919	0.2987	0.2859	AveI D		0.281 9			4.5		20.0				
PFECA F	1.0776 0.9645	1.0915 0.8957	1.1129	1.0376	1.0611	AveI D		1.034 4			7.5		20.0				
PFO2HxA	0.3486 0.3391	0.3251 0.3291	0.3292	0.3121	0.3370	AveI D		0.331 5			3.5		20.0				
3:3 FTCA	0.0655 0.0683	0.0724 0.0618	0.0651	0.0698	0.0649	AveI D		0.066 8			5.3		20.0				

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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															
Perfluoropentanoic acid	0.9831 1.0186	0.9555 0.9106	1.0173	1.0034	0.9550	AveI D		0.977 6			4.1		20.0				
Perfluorobutanesulfonic acid	1.1532 0.9877	1.0485 0.9552	1.1102	1.0221	1.0215	AveI D		1.042 6			6.6		20.0				
PEPA	0.1664 0.1965	0.2132 0.1882	0.2131	0.2076	0.1991	AveI D		0.197 7			8.4		20.0				
PFECA A	0.5988 0.5566	0.5868 0.5257	0.5942	0.6353	0.5654	AveI D		0.580 4			6.0		20.0				
Perfluoro (2-ethoxyethane) sulfonic acid	2.8919 2.3869	2.4911 2.2888	2.5220	2.5538	2.4588	AveI D		2.513 3			7.5		20.0				
PFECA B	0.7538 0.7401	0.7726 0.6870	0.8019	0.7199	0.7270	AveI D		0.743 2			5.0		20.0				
4:2 Fluorotelomer sulfonic acid	2.6802 ++++	2.1774 ++++	2.5355	2.4981	2.6270	AveI D		2.503 7			7.8		20.0				
Perfluorohexanoic acid	1.0712 0.8552	0.8515 0.8544	0.8792	0.8401	0.9430	AveI D		0.899 2			9.3		20.0				
Perfluoropentanesulfonic acid	1.0885 0.9585	0.9596 0.8616	1.0338	0.9733	0.9952	AveI D		0.981 5			7.2		20.0				
PFO3OA	0.3680 0.3930	0.4360 0.3968	0.3916	0.3995	0.4401	AveI D		0.403 6			6.4		20.0				
HFPODA	0.9593 0.8444	0.8227 0.9044	0.9471	0.8093	0.8580	AveI D		0.877 9			6.8		20.0				
R-PSDCA	2.2066 1.9783	2.0529 2.0116	2.2019	2.1747	2.0008	AveI D		2.089 5			4.8		20.0				
Hydro-EVE Acid	2.0974 2.1343	2.2348 2.0276	2.2795	2.1073	2.2367	AveI D		2.159 7			4.3		20.0				
Perfluoroheptanoic acid	1.1284 1.0230	1.0640 1.0541	1.0543	1.0346	1.1968	AveI D		1.079 3			5.7		20.0				
Hydro-PS Acid	1.4598 1.6133	1.5179 1.6375	1.4579	1.5361	1.5185	AveI D		1.534 4			4.5		20.0				
Perfluorohexanesulfonic acid	1.1075 1.1124	1.0677 1.1687	1.1194	1.0273	1.1411	AveI D		1.106 3			4.2		20.0				
DONA	1.5440 1.5024	1.7343 1.7831	1.5208	1.5425	1.9811	AveI D		1.658 3			10.9		20.0				
PFECA G	2.0118 2.1910	2.4589 1.9135	2.5660	2.4691	2.2891	AveI D		2.271 4			10.8		20.0				

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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															
5:3 FTCA	0.2218 0.2172	0.1964 0.2251	0.2142	0.2121	0.2370	AveI D	0.217 7				5.7		20.0				
6:2 FTUCA	1.2448 1.0550	1.1959 1.0815	1.1248	1.1428	1.1842	AveI D	1.147 0				5.8		20.0				
6:2 FTCA	0.9517 1.0942	1.1058 +++++	1.0698	1.0884	1.1220	AveI D	1.072 0				5.7		20.0				
PFO4DA	0.7409 0.6853	0.6943 0.6539	0.7039	0.7165	0.7227	AveI D	0.702 5				4.0		20.0				
PS Acid	0.5340 0.5310	0.5152 0.5088	0.5996	0.5475	0.5355	AveI D	0.538 8				5.5		20.0				
EVE Acid	1.8980 1.5863	2.0081 1.5121	1.9019	1.8099	1.7663	AveI D	1.783 2				10.0		20.0				
Perfluoro-4-ethylcyclohexanesulfonic acid	1.0316 1.2324	0.9692 1.2449	1.0345	1.0015	1.1071	AveI D	1.088 7				10.2		20.0				
6:2 Fluorotelomer sulfonic acid	2.2708 +++++	2.5745 +++++	2.2288	2.4728	2.5602	AveI D	2.421 4				6.7		20.0				
Perfluoroheptanesulfonic acid	1.0103 1.0256	1.0465 0.9966	1.0233	0.9794	1.0567	AveI D	1.019 8				2.6		20.0				
Perfluorooctanoic acid	1.2006 0.9448	1.0924 0.9095	1.0434	0.9158	1.0144	AveI D	1.017 3				10.4		20.0				
TAF	0.9041 0.7737	0.8378 0.7676	0.7331	0.7534	0.8448	AveI D	0.802 1				7.7		20.0				
Perfluorooctanesulfonic acid	1.1549 1.1054	1.0178 1.0288	1.1659	1.0922	1.1336	AveI D	1.099 8				5.3		20.0				
Perfluorononanoic acid	1.1964 0.9462	0.9902 0.9028	1.0025	0.9367	1.0145	AveI D	0.998 5				9.6		20.0				
7:3 FTCA	2.2595 2.2406	2.3546 +++++	2.3645	2.2283	2.3648	AveI D	2.302 1				2.9		20.0				
8:2 FTUCA	1.0716 +++++	0.9987 +++++	1.1305	0.9658	1.0941	AveI D	1.052 1				6.5		20.0				
8:2 FTCA	1.0944 +++++	0.9731 +++++	1.0362	1.0110	0.8973	AveI D	1.002 4				7.3		20.0				
9Cl-PF3ONS	1.1257 1.1456	0.9405 1.1319	1.1525	1.0377	1.1415	AveI D	1.096 5				7.2		20.0				
Perfluorononanesulfonic acid	1.0306 1.2358	1.1000 1.0829	1.1814	1.1447	1.2601	AveI D	1.147 9				7.3		20.0				

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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	1.0337 1.0161	0.9792 0.9129	1.1780	1.0235	1.1124	AveI D		1.036 5			8.3		20.0				
8:2 Fluorotelomer sulfonic acid	3.9341 ++++	3.5740 ++++	3.3484	2.7667	3.4585	AveI D		3.416 3			12.4		20.0				
Perfluorooctanesulfonamide	1.0522 0.9901	1.0055 0.9957	1.1102	1.0691	1.0670	AveI D		1.041 4			4.3		20.0				
NMeFOSAA	0.7431 ++++	0.8421 ++++	0.9033	0.8242	0.9353	AveI D		0.849 6			8.8		20.0				
Perfluorodecanesulfonic acid	1.0334 1.1508	0.9784 1.0002	1.1581	1.0317	1.0864	AveI D		1.062 7			6.7		20.0				
Perfluoroundecanoic acid	0.9925 0.9577	0.8356 0.8436	1.1641	0.8469	0.9532	AveI D		0.941 9			12.4		20.0				
NEtFOSAA	0.7116 ++++	0.8764 ++++	0.9347	0.7786	0.8816	AveI D		0.836 6			10.7		20.0				
10:2 FTUCA	0.8311 ++++	0.9009 ++++	1.0284	0.9443	0.8972	AveI D		0.920 4			7.9		20.0				
11Cl-PF3OUds	0.8569 0.8280	0.7949 0.7926	0.8937	0.8311	0.8529	AveI D		0.835 7			4.3		20.0				
10:2 FTCA	1.2585 ++++	1.0588 ++++	1.2081	1.0644	0.9532	AveI D		1.108 6			11.1		20.0				
Perfluorododecanoic acid	0.9937 1.0468	0.9717 0.9242	1.0038	1.0148	1.1719	AveI D		1.018 1			7.6		20.0				
10:2 FTS	1.7024 ++++	2.2581 ++++	2.4642	2.1770	2.5105	AveI D		2.222 4			14.5		20.0				
NMeFOSE	1.0897 1.1194	1.0750 1.1193	1.0919	1.0831	1.2127	AveI D		1.113 0			4.2		20.0				
NMeFOSA	1.1053 0.9824	0.9955 ++++	0.9947	0.9690	0.9799	AveI D		1.004 5			5.0		20.0				
Perfluorododecanesulfonic acid	1.0430 0.9109	0.8750 0.8495	0.9690	0.8925	0.9073	AveI D		0.921 0			7.1		20.0				
NEtFOSE	1.1464 1.1278	1.0359 1.0561	1.0829	1.0685	1.1098	AveI D		1.089 6			3.7		20.0				
Perfluorotridecanoic acid	0.8935 0.6669	0.7607 0.6294	0.7828	0.7236	0.7844	AveI D		0.748 8			11.6		20.0				
NEtFOSA	1.3884 1.1941	1.0845 1.2364	1.2871	1.1919	1.2286	AveI D		1.230 1			7.6		20.0				

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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															
Perfluorotetradecanoic acid	1.0844 0.8293	0.9093 0.7954	0.9053	0.9193	0.9120	AveI D		0.907 8			10.1		20.0				
Perfluorohexadecanoic acid	1.4606 1.1044	1.2699 1.0989	1.1668	1.2105	1.2501	AveI D		1.223 0			10.1		20.0				
Perfluorooctadecanoic acid	0.4947 0.5013	0.4719 0.5143	0.4664	0.4912	0.4968	AveI D		0.491 0			3.4		20.0				
13C4 PFBA	1.2154 1.0874	1.1013 1.1118	1.1261	1.1297	1.0896	Ave		1.123 0			3.9		20.0				
13C5 PFPeA	1.1291 0.9352	1.0238 0.9800	0.9909	0.9599	0.9871	Ave		1.000 8			6.3		20.0				
13C3 PFBS	1.8979 1.7492	1.8037 1.8023	1.8407	1.7517	1.8302	Ave		1.810 8			2.9		20.0				
M2-4:2 FTS	0.0855 ++++	0.0943 ++++	0.0852	0.0774	0.0768	Ave		0.083 8			8.5		20.0				
13C5 PFHxA	1.1362 1.2071	1.1435 1.3337	1.1735	1.1039	1.0459	Ave		1.163 4			7.8		20.0				
13C3 HFPO-DA	0.3404 0.3694	0.3520 0.4313	0.3212	0.3325	0.3424	Ave		0.355 6			10.3		20.0				
13C3 PFHxS	1.6725 1.5057	1.4914 1.5942	1.6162	1.4769	1.3655	Ave		1.531 8			6.7		20.0				
13C4 PFHpA	1.1985 1.1050	1.2246 1.0984	1.2243	1.0861	0.9457	Ave		1.126 1			8.9		20.0				
13C2-2H-Perfluoro-2-octenoic acid	1.2030 1.1794	1.1261 1.2415	1.2581	1.1610	1.0487	Ave		1.174 0			6.1		20.0				
13C2-2-Perfluorohexylethanoic acid	0.1347 0.1262	0.1272 ++++	0.1233	0.1203	0.1074	Ave		0.123 2			7.4		20.0				
M2-6:2 FTS	0.0625 ++++	0.0622 ++++	0.0611	0.0528	0.0471	Ave		0.057 1			12.0		20.0				
13C8 PFOA	1.0431 0.9953	1.0070 1.0788	1.0210	0.9994	0.8875	Ave		1.004 6			5.9		20.0				
13C8 PFOS	1.0990 0.9455	1.0577 1.0737	0.9589	1.0372	0.9648	Ave		1.019 5			6.1		20.0				
13C9 PFNA	0.7778 0.6445	0.7588 0.6504	0.7195	0.7115	0.6550	Ave		0.702 5			7.7		20.0				
13C2-2H-Perfluoro-2-decenoic acid	1.1589 ++++	1.1864 ++++	1.0942	1.0681	0.9708	Ave		1.095 7			7.7		20.0				

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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															
13C2-2-Perfluorooctylethanoic acid	0.1217 ++++	0.1205 ++++	0.1171	0.1002	0.1067	Ave		0.113 2			8.3		20.0				
13C6 PFDA	1.1941 0.9732	1.1376 0.9933	0.9832	0.9617	0.9729	Ave		1.030 9			9.1		20.0				
M2-8:2 FTS	0.0584 ++++	0.0523 ++++	0.0512	0.0482	0.0436	Ave		0.050 7			10.7		20.0				
13C8 FOSA	2.4408 2.2364	2.5135 2.2750	2.4115	2.2062	2.1888	Ave		2.324 6			5.5		20.0				
d3-NMeFOSAA	0.4440 ++++	0.4406 ++++	0.4049	0.3967	0.4045	Ave		0.418 1			5.3		20.0				
13C7 PFUnA	0.7623 0.6924	0.8083 0.7560	0.7004	0.7794	0.7383	Ave		0.748 2			5.5		20.0				
d5-NEtFOSAA	0.3804 ++++	0.3719 ++++	0.3726	0.3307	0.3209	Ave		0.355 3			7.7		20.0				
13C2-2H-Perfluoro-2-dodecenoic acid	1.0819 ++++	1.1076 ++++	0.9545	0.9282	0.8887	Ave		0.992 2			9.8		20.0				
13C2-2-Perfluorodecylethanoic acid	0.0938 ++++	0.0893 ++++	0.0863	0.0794	0.0789	Ave		0.085 5			7.5		20.0				
13C2-PFDoDA	0.5020 0.4579	0.5313 0.5208	0.4936	0.4419	0.4290	Ave		0.482 4			8.2		20.0				
d7-N-MeFOSE-M	0.2778 0.2567	0.2957 0.2746	0.2675	0.2505	0.2432	Ave		0.266 6			6.8		20.0				
d3-NMePFOSA	0.3237 0.3223	0.3288 ++++	0.3205	0.2936	0.3046	Ave		0.315 6			4.3		20.0				
d9-N-EtFOSE-M	0.3201 0.2631	0.3326 0.2978	0.2857	0.2873	0.2783	Ave		0.295 0			8.2		20.0				
d5-NEtPFOSA	0.3066 0.2753	0.2983 0.2792	0.2852	0.2809	0.2694	Ave		0.285 0			4.6		20.0				
13C2 PFTeDA	0.4033 0.3785	0.4039 0.4150	0.4038	0.3611	0.3650	Ave		0.390 1			5.5		20.0				

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-271695/1	22JUL01XMCAL-01.d
Level 2	IC 410-271695/2	22JUL01XMCAL-02.d
Level 3	IC 410-271695/3	22JUL01XMCAL-03.d
Level 4	IC 410-271695/4	22JUL01XMCAL-04.d
Level 5	ICISAV 410-271695/5	22JUL01XMCAL-05.d
Level 6	IC 410-271695/6	22JUL01XMCAL-06.d
Level 7	IC 410-271695/7	22JUL01XMCAL-07.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			
MTP		AveI	2884	7455	27183	107882	292838	0.200	0.500	2.00	8.00	20.0
		D	650694	1297988				50.0	100			
PPF Acid		AveI	18603	44889	169063	656690	1759155	0.200	0.500	2.00	8.00	20.0
		D	3938091	7332891				50.0	100			
PFMOAA		AveI	8699	22445	81506	332924	855734	0.200	0.500	2.00	8.00	20.0
		D	1978605	3702121				50.0	100			
Perfluorobutanoic acid		AveI	42939	111233	401530	1597273	4057586	0.200	0.500	2.00	8.00	20.0
		D	8899597	15995397				50.0	100			
R-EVE		AveI	6644	18699	63947	267479	669403	0.200	0.500	2.00	8.00	20.0
		D	1585456	3006034				50.0	100			
R-PSDA		AveI	1893	5660	18094	79182	209874	0.200	0.500	2.00	8.00	20.0
		D	503039	1044553				50.0	100			
Hydrolyzed PSDA		AveI	13910	37001	134066	534169	1370314	0.200	0.500	2.00	8.00	20.0
		D	3095130	6048716				50.0	100			
PMPA		AveI	18592	53393	197147	821899	2089056	0.200	0.500	2.00	8.00	20.0
		D	4352170	8330385				50.0	100			
Perfluoropropanesulfonic acid		AveI	16856	46297	185589	711713	1687307	0.183	0.458	1.83	7.33	18.3
		D	3873154	7176881				45.8	91.6			

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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
NVHOS		AveI D	18671	52751	193872	814453	2017456	0.200	0.500	2.00	8.00	20.0
			4252041	7682202				50.0	100			
PFECA F		AveI D	45579	124434	452286	1824617	4457931	0.200	0.500	2.00	8.00	20.0
			9409850	16281763				50.0	100			
PFO2HxA		AveI D	14747	37059	133797	548854	1415593	0.200	0.500	2.00	8.00	20.0
			3308469	5981368				50.0	100			
3:3 FTCA		AveI D	2574	7669	23289	104363	246831	0.200	0.500	2.00	8.00	20.0
			572811	989529				50.0	100			
Perfluoropentanoic acid		AveI D	38630	101260	363790	1499238	3634395	0.200	0.500	2.00	8.00	20.0
			8545698	14588839				50.0	100			
Perfluorobutanesulfonic acid		AveI D	67410	173261	652669	2466543	6379697	0.177	0.443	1.77	7.08	17.7
			13717429	24908504				44.3	88.5			
PEPA		AveI D	7039	24299	86596	365068	836367	0.200	0.500	2.00	8.00	20.0
			1917460	3420779				50.0	100			
PFECA A		AveI D	39548	109569	394709	1732316	3989479	0.200	0.500	2.00	8.00	20.0
			8734853	15491743				50.0	100			
Perfluoro (2-ethoxyethane) sulfonic acid		AveI D	169996	413957	1491000	6197632	15442356	0.178	0.445	1.78	7.12	17.8
			33337346	60025124				44.5	89.0			
PFECA B		AveI D	49791	144252	532700	1962954	5130058	0.200	0.500	2.00	8.00	20.0
			11614483	20242441				50.0	100			
4:2 Fluorotelomer sulfonic acid		AveI D	9759	24078	90725	343588	923443	0.187	0.467	1.87	7.47	18.7
			+++++	+++++				+++++	+++++			
Perfluorohexanoic acid		AveI D	55521	122267	463736	1763986	4832819	0.200	0.500	2.00	8.00	20.0
			9809408	17674716				50.0	100			

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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
Perfluoropentanesulfonic acid		AveI D	67437	168068	644166	2489337	6587569	0.188	0.469	1.88	7.50	18.8
			14109482	23813726				46.9	93.8			
PFO3OA		AveI D	15567	49705	159149	702599	1848772	0.200	0.500	2.00	8.00	20.0
			3833837	7213289				50.0	100			
HFPODA		AveI D	14896	36361	136711	511840	1439644	0.200	0.500	2.00	8.00	20.0
			2963817	6049832				50.0	100			
R-PSDCA		AveI D	145742	383300	1462631	5929999	14119270	0.200	0.500	2.00	8.00	20.0
			31045099	59275267				50.0	100			
Hydro-EVE Acid		AveI D	88719	254765	926377	3705719	9396627	0.200	0.500	2.00	8.00	20.0
			20822287	36856260				50.0	100			
Perfluoroheptanoic acid		AveI D	61691	163636	580160	2137286	5546059	0.200	0.500	2.00	8.00	20.0
			10742230	17958881				50.0	100			
Hydro-PS Acid		AveI D	96416	283419	968437	4188721	10715564	0.200	0.500	2.00	8.00	20.0
			25318554	48251911				50.0	100			
Perfluorohexanesulfonic acid		AveI D	77059	182363	741570	2631813	6962895	0.182	0.456	1.82	7.30	18.2
			14514910	26355700				45.6	91.2			
DONA		AveI D	79767	252044	790834	3011263	8675900	0.189	0.473	1.89	7.56	18.9
			14907644	28708595				47.3	94.5			
PFECA G		AveI D	85096	280315	1042788	4341955	9616690	0.200	0.500	2.00	8.00	20.0
			21375088	34783739				50.0	100			
5:3 FTCA		AveI D	12125	30206	117894	438071	1098111	0.200	0.500	2.00	8.00	20.0
			2281154	3834502				50.0	100			
6:2 FTUCA		AveI D	68314	169112	636018	2523666	6085079	0.200	0.500	2.00	8.00	20.0
			11823319	20825398				50.0	100			

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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
6:2 FTCA		AveI D	5846	17670	59280	248956	590585	0.200	0.500	2.00	8.00	20.0
			1311700	++++				50.0	++++			
PFO4DA		AveI D	31339	79145	286062	1260005	3036111	0.200	0.500	2.00	8.00	20.0
			6685952	11886162				50.0	100			
PS Acid		AveI D	35270	96205	398269	1493042	3778759	0.200	0.500	2.00	8.00	20.0
			8333053	14992036				50.0	100			
EVE Acid		AveI D	80283	228915	772896	3182611	7420251	0.200	0.500	2.00	8.00	20.0
			15476245	27486024				50.0	100			
Perfluoro-4-ethylcyclohexanesulfonic acid		AveI D	72565	167352	692844	2593993	6829855	0.184	0.461	1.84	7.38	18.4
			16257877	28383257				46.1	92.2			
6:2 Fluorotelomer sulfonic acid		AveI D	6139	19073	58002	235350	560554	0.190	0.474	1.90	7.58	19.0
			++++	++++				++++	++++			
Perfluoroheptanesulfonic acid		AveI D	73381	186582	707610	2619144	6730760	0.190	0.476	1.90	7.62	19.0
			13970027	23461033				47.6	95.2			
Perfluorooctanoic acid		AveI D	57129	138145	478808	1741005	4411150	0.200	0.500	2.00	8.00	20.0
			8935427	15218583				50.0	100			
TAF		AveI D	38243	95507	297923	1324909	3549258	0.200	0.500	2.00	8.00	20.0
			7548054	13953275				50.0	100			
Perfluorooctanesulfonic acid		AveI D	65124	161952	619843	2523216	6492755	0.185	0.463	1.85	7.40	18.5
			14072274	25797320				46.3	92.6			
Perfluorononanoic acid		AveI D	51592	122120	432087	1604005	4262395	0.200	0.500	2.00	8.00	20.0
			8872735	14818395				50.0	100			
7:3 FTCA		AveI D	13880	37625	131028	509681	1244712	0.200	0.500	2.00	8.00	20.0
			2685888	++++				50.0	++++			

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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 FTUCA		AveI D	46313 +++++	118896 +++++	457781	1709497	4461105	0.200 +++++	0.500 +++++	2.00	8.00	20.0
8:2 FTCA		AveI D	4967 +++++	11762 +++++	44909	167951	402121	0.200 +++++	0.500 +++++	2.00	8.00	20.0
9Cl-PF3ONS		AveI D	63784 14655584	150377 28519619	615682	2408881	6569894	0.186 46.5	0.465 93.0	1.86	7.44	18.6
Perfluorononanesulfonic acid		AveI D	60279 16319471	181555 28166722	651510	2742910	7486019	0.192 48.0	0.480 96.0	1.92	7.68	19.2
Perfluorodecanoic acid		AveI D	46032 9281196	111781 15390763	428622	1631190	4545531	0.200 50.0	0.500 100	2.00	8.00	20.0
8:2 Fluorotelomer sulfonic acid		AveI D	8210 +++++	17958 +++++	60770	211706	607072	0.192 +++++	0.479 +++++	1.92	7.66	19.2
Perfluorooctanesulfonamide		AveI D	95778 20782781	253596 38450424	990840	3908765	9808640	0.200 50.0	0.500 100	2.00	8.00	20.0
NMeFOSAA		AveI D	12305 +++++	37231 +++++	135369	541802	1588868	0.200 +++++	0.500 +++++	2.00	8.00	20.0
Perfluorodecanesulfonic acid		AveI D	60696 15259609	162150 26123636	641294	2482624	6480946	0.193 48.2	0.482 96.4	1.93	7.71	19.3
Perfluoroundecanoic acid		AveI D	28214 6224289	67778 10825915	301725	1093792	2955909	0.200 50.0	0.500 100	2.00	8.00	20.0
NEtFOSAA		AveI D	10094 +++++	32700 +++++	128901	426654	1188083	0.200 +++++	0.500 +++++	2.00	8.00	20.0
10:2 FTUCA		AveI D	33531 +++++	100124 +++++	363277	1452432	3348808	0.200 +++++	0.500 +++++	2.00	8.00	20.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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
11Cl-PF3OUdS		AveI D	48553	127093	477454	1929172	4908809	0.186	0.465	1.86	7.44	18.6
			10592662	19971716				46.5	93.0			
10:2 FTCA		AveI D	4401	9483	38604	140014	315798	0.200	0.500	2.00	8.00	20.0
			++++	++++				++++	++++			
Perfluorododecanoic acid		AveI D	18605	51809	183349	743211	2111286	0.200	0.500	2.00	8.00	20.0
			4499056	8170673				50.0	100			
10:2 FTS		AveI D	3575	11417	45002	167625	443436	0.193	0.482	1.93	7.71	19.3
			++++	++++				++++	++++			
NMeFOSE		AveI D	11289	31899	108091	449627	1238523	0.200	0.500	2.00	8.00	20.0
			2696944	5218034				50.0	100			
NMeFOSA		AveI D	13345	32848	117992	471441	1253582	0.200	0.500	2.00	8.00	20.0
			2971646	++++				50.0	++++			
Perfluorododecanesulfonic acid		AveI D	61517	145620	538846	2156451	5434989	0.194	0.484	1.94	7.74	19.4
			12129349	22280134				48.4	96.8			
NEtFOSE		AveI D	13685	34567	114502	508645	1297078	0.200	0.500	2.00	8.00	20.0
			2785256	5338918				50.0	100			
Perfluorotridecanoic acid		AveI D	16729	40558	142989	529959	1413265	0.200	0.500	2.00	8.00	20.0
			2866351	5564333				50.0	100			
NEtFOSA		AveI D	15876	32457	135842	554803	1390271	0.200	0.500	2.00	8.00	20.0
			3085379	5859517				50.0	100			
Perfluorotetradecanoic acid		AveI D	16311	36847	135281	550199	1398223	0.200	0.500	2.00	8.00	20.0
			2945775	5602419				50.0	100			
Perfluorohexadecanoic acid		AveI D	21970	51462	174364	724454	1916577	0.200	0.500	2.00	8.00	20.0
			3923094	7740261				50.0	100			

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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
Perfluorooctadecanoic acid		AveI D	7441	19124	69701	293946	761689	0.200	0.500	2.00	8.00	20.0
			1780780	3622736				50.0	100			
13C4 PFBA	13C3 PFBA	Ave	2114930	2279972	2031933	2198116	2100536	10.0	10.0	10.0	10.0	10.0
			1951189	1817766				10.0	10.0			
13C5 PFPeA	13C3 PFBA	Ave	1964754	2119591	1788004	1867710	1902907	10.0	10.0	10.0	10.0	10.0
			1677990	1602175				10.0	10.0			
13C3 PFBS	13C3 PFBA	Ave	3071277	3472908	3088859	3169886	3281341	9.30	9.30	9.30	9.30	9.30
			2918931	2740387				9.30	9.30			
M2-4:2 FTS	13PF OA	Ave	182054	221158	178912	171924	175757	9.34	9.34	9.34	9.34	9.34
			+++++	+++++				+++++	+++++			
13C5 PFHxA	13PF OA	Ave	2591464	2871946	2637263	2624615	2562446	10.0	10.0	10.0	10.0	10.0
			2294034	2068722				10.0	10.0			
13C3 HFPO-DA	13PF OA	Ave	776434	883968	721719	790608	838974	10.0	10.0	10.0	10.0	10.0
			702006	668922				10.0	10.0			
13C3 PFHxS	13PF OA	Ave	3608674	3543460	3435839	3321886	3164775	9.46	9.46	9.46	9.46	9.46
			2707068	2339262				9.46	9.46			
13C4 PFHpA	13PF OA	Ave	2733501	3075756	2751338	2582213	2317104	10.0	10.0	10.0	10.0	10.0
			2100062	1703764				10.0	10.0			
13C2-2H-Perfluoro-2-octenoic acid	13PF OA	Ave	2743918	2828244	2827282	2760482	2569257	10.0	10.0	10.0	10.0	10.0
			2241394	1925634				10.0	10.0			
13C2-2-Perfluorohexylethanoic acid	13PF OA	Ave	307143	319593	277068	285909	263175	10.0	10.0	10.0	10.0	10.0
			239752	+++++				10.0	+++++			
M2-6:2 FTS	13PF OA	Ave	135458	148482	130391	119221	109706	9.50	9.50	9.50	9.50	9.50
			+++++	+++++				+++++	+++++			

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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 PFOA	13PF OA	Ave	2379189 1891533	2529115 1673328	2294418	2376215	2174322	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C8 PFOS	PFOS	Ave	2912403 2630072	3287169 2590161	2745820	2982829	2958126	9.56 9.56	9.56 9.56	9.56	9.56	9.56
13C9 PFNA	PFOS	Ave	2156131 1875475	2466602 1641298	2155037	2140455	2100753	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2-2H-Perfluoro-2-decenoic acid	PFDA	Ave	2160919 +++++	2380961 +++++	2024735	2212562	2038680	10.0 +++++	10.0 +++++	10.0	10.0	10.0
13C2-2-Perfluorooctylethanoic acid	PFDA	Ave	226919 +++++	241747 +++++	216704	207653	224066	10.0 +++++	10.0 +++++	10.0	10.0	10.0
13C6 PFDA	PFDA	Ave	2226671 1826848	2283039 1685947	1819224	1992245	2043155	10.0 10.0	10.0 10.0	10.0	10.0	10.0
M2-8:2 FTS	PFDA	Ave	104344 +++++	100492 +++++	90744	95649	87766	9.58 +++++	9.58 +++++	9.58	9.58	9.58
13C8 FOSA	PFDA	Ave	4551444 4198117	5044057 3861481	4462324	4570243	4596471	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d3-NMeFOSAA	PFDA	Ave	827913 +++++	884283 +++++	749292	821744	849412	10.0 +++++	10.0 +++++	10.0	10.0	10.0
13C7 PUnA	PFDA	Ave	1421375 1299846	1622173 1283252	1296002	1614490	1550520	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d5-NEtFOSAA	PFDA	Ave	709292 +++++	746250 +++++	689535	684976	673842	10.0 +++++	10.0 +++++	10.0	10.0	10.0
13C2-2H-Perfluoro-2-dodecenoic acid	PFDA	Ave	2017342 +++++	2222674 +++++	1766292	1922713	1866174	10.0 +++++	10.0 +++++	10.0	10.0	10.0
13C2-2-Perfluorodecylethanoic acid	PFDA	Ave	174850 +++++	179126 +++++	159778	164434	165653	10.0 +++++	10.0 +++++	10.0	10.0	10.0
13C2-PFDoDA	PFDA	Ave	936126 859568	1066312 884040	913295	915440	900815	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d7-N-MeFOSE-M	PFDA	Ave	517969 481834	593474 466172	494978	518891	510647	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d3-NMePFOSA	PFDA	Ave	603668	659916	593079	608129	639633	10.0	10.0	10.0	10.0	10.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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
			604982	+++++				10.0	+++++			
d9-N-EtFOSE-M	PFDA	Ave	596890 493944	667408 505512	528672	595057	584350	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d5-NEtPFOSA	PFDA	Ave	571745 516764	598558 473931	527717	581857	565802	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2 PFTeDA	PFDA	Ave	752100 710443	810492 704340	747180	748101	766562	10.0 10.0	10.0 10.0	10.0	10.0	10.0

Curve Type Legend

Ave = Average ISTD
 AveID = Average isotope dilution

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-271695/1	22JUL01XMCAL-01.d
Level 2	IC 410-271695/2	22JUL01XMCAL-02.d
Level 3	IC 410-271695/3	22JUL01XMCAL-03.d
Level 4	IC 410-271695/4	22JUL01XMCAL-04.d
Level 5	ICISAV 410-271695/5	22JUL01XMCAL-05.d
Level 6	IC 410-271695/6	22JUL01XMCAL-06.d
Level 7	IC 410-271695/7	22JUL01XMCAL-07.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
MTP	1.6 6.4	-2.5	-0.3	-8.6	3.9	-0.6	50 30	30	30	30	30	30
PPF Acid	8.1 -0.9	-3.2	2.2	-8.2	2.9	-0.8	50 30	30	30	30	30	30
PFMOAA	2.6 1.6	-1.7	0.1	-5.5	1.7	1.2	50 30	30	30	30	30	30
Perfluorobutanoic acid	6.9 -7.3	2.8	4.1	-4.3	1.7	-3.9	50 30	30	30	30	30	30
R-EVE	-1.6 3.6	2.7	-1.5	-4.7	-0.2	1.8	50 30	30	30	30	30	30
R-PSDA	-5.6 16.8	-0.1	-10.3	-4.3	-2.0	5.6	50 30	30	30	30	30	30
Hydrolyzed PSDA	5.1 2.4	-1.1	0.7	-2.3	-3.1	-1.6	50 30	30	30	30	30	30
PMPA	-5.7 -1.7	0.5	4.1	0.3	6.7	-4.3	50 30	30	30	30	30	30
Perfluoropropanesulfonic acid	-2.4 -3.3	-0.6	11.8	-0.9	-1.7	-2.8	50 30	30	30	30	30	30
NVHOS	0.3 -7.5	0.2	3.5	6.0	1.4	-3.9	50 30	30	30	30	30	30
PFECA F	4.2 -13.4	5.5	7.6	0.3	2.6	-6.8	50 30	30	30	30	30	30
PFO2HxA	5.2 -0.7	-1.9	-0.7	-5.8	1.7	2.3	50 30	30	30	30	30	30
3:3 FTCA	-2.0 -7.6	8.3	-2.5	4.5	-2.9	2.2	50 30	30	30	30	30	30
Perfluoropentanoic acid	0.6 -6.9	-2.3	4.1	2.6	-2.3	4.2	50 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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
Perfluorobutanesulfonic acid	10.6 -8.4	0.6	6.5	-2.0	-2.0	-5.3	50 30	30	30	30	30	30
PEPA	-15.8 -4.8	7.8	7.8	5.0	0.7	-0.6	50 30	30	30	30	30	30
PFECA A	3.2 -9.4	1.1	2.4	9.5	-2.6	-4.1	50 30	30	30	30	30	30
Perfluoro (2-ethoxyethane) sulfonic acid	15.1 -8.9	-0.9	0.3	1.6	-2.2	-5.0	50 30	30	30	30	30	30
PFECA B	1.4 -7.6	4.0	7.9	-3.1	-2.2	-0.4	50 30	30	30	30	30	30
4:2 Fluorotelomer sulfonic acid	7.1 ++++	-13.0	1.3	-0.2	4.9	++++	50	30	30	30	30	
Perfluorohexanoic acid	19.1 -5.0	-5.3	-2.2	-6.6	4.9	-4.9	50 30	30	30	30	30	30
Perfluoropentanesulfonic acid	10.9 -12.2	-2.2	5.3	-0.8	1.4	-2.3	50 30	30	30	30	30	30
PFO3OA	-8.8 -1.7	8.0	-3.0	-1.0	9.0	-2.6	50 30	30	30	30	30	30
HFPODA	9.3 3.0	-6.3	7.9	-7.8	-2.3	-3.8	50 30	30	30	30	30	30
R-PSDCA	5.6 -3.7	-1.8	5.4	4.1	-4.2	-5.3	50 30	30	30	30	30	30
Hydro-EVE Acid	-2.9 -6.1	3.5	5.6	-2.4	3.6	-1.2	50 30	30	30	30	30	30
Perfluoroheptanoic acid	4.5 -2.3	-1.4	-2.3	-4.1	10.9	-5.2	50 30	30	30	30	30	30
Hydro-PS Acid	-4.9 6.7	-1.1	-5.0	0.1	-1.0	5.1	50 30	30	30	30	30	30
Perfluorohexanesulfonic acid	0.1 5.6	-3.5	1.2	-7.1	3.1	0.5	50 30	30	30	30	30	30
DONA	-6.9 7.5	4.6	-8.3	-7.0	19.5	-9.4	50 30	30	30	30	30	30
PFECA G	-11.4 -15.8	8.3	13.0	8.7	0.8	-3.5	50 30	30	30	30	30	30
5:3 FTCA	1.9 3.4	-9.8	-1.6	-2.6	8.9	-0.2	50 30	30	30	30	30	30
6:2 FTUCA	8.5 -5.7	4.3	-1.9	-0.4	3.2	-8.0	50 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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
6:2 FTCA	-11.2 ++++	3.2	-0.2	1.5	4.7	2.1	50	30	30	30	30	30
PFO4DA	5.5 -6.9	-1.2	0.2	2.0	2.9	-2.4	50 30	30	30	30	30	30
PS Acid	-0.9 -5.6	-4.4	11.3	1.6	-0.6	-1.4	50 30	30	30	30	30	30
EVE Acid	6.4 -15.2	12.6	6.7	1.5	-0.9	-11.0	50 30	30	30	30	30	30
Perfluoro-4-ethylcyclohexanesulfonic acid	-5.2 14.3	-11.0	-5.0	-8.0	1.7	13.2	50 30	30	30	30	30	30
6:2 Fluorotelomer sulfonic acid	-6.2 ++++	6.3	-8.0	2.1	5.7	++++	50	30	30	30	30	
Perfluoroheptanesulfonic acid	-0.9 -2.3	2.6	0.3	-4.0	3.6	0.6	50 30	30	30	30	30	30
Perfluorooctanoic acid	18.0 -10.6	7.4	2.6	-10.0	-0.3	-7.1	50 30	30	30	30	30	30
TAF	12.7 -4.3	4.5	-8.6	-6.1	5.3	-3.5	50 30	30	30	30	30	30
Perfluorooctanesulfonic acid	5.0 -6.5	-7.5	6.0	-0.7	3.1	0.5	50 30	30	30	30	30	30
Perfluorononanoic acid	19.8 -9.6	-0.8	0.4	-6.2	1.6	-5.2	50 30	30	30	30	30	30
7:3 FTCA	-1.8 ++++	2.3	2.7	-3.2	2.7	-2.7	50	30	30	30	30	30
8:2 FTUCA	1.8 ++++	-5.1	7.4	-8.2	4.0	++++	50	30	30	30	30	
8:2 FTCA	9.2 ++++	-2.9	3.4	0.9	-10.5	++++	50	30	30	30	30	
9Cl-PF3ONS	2.7 3.2	-14.2	5.1	-5.4	4.1	4.5	50 30	30	30	30	30	30
Perfluorononanesulfonic acid	-10.2 -5.7	-4.2	2.9	-0.3	9.8	7.7	50 30	30	30	30	30	30
Perfluorodecanoic acid	-0.3 -11.9	-5.5	13.7	-1.3	7.3	-2.0	50 30	30	30	30	30	30
8:2 Fluorotelomer sulfonic acid	15.2 ++++	4.6	-2.0	-19.0	1.2	++++	50	30	30	30	30	
Perfluorooctanesulfonamide	1.0 -4.4	-3.4	6.6	2.7	2.5	-4.9	50 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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
NMeFOSAA	-12.5 ++++	-0.9	6.3	-3.0	10.1	++++	50	30	30	30	30	
Perfluorodecanesulfonic acid	-2.8 -5.9	-7.9	9.0	-2.9	2.2	8.3	50 30	30	30	30	30	30
Perfluoroundecanoic acid	5.4 -10.4	-11.3	23.6	-10.1	1.2	1.7	50 30	30	30	30	30	30
NEtFOSAA	-14.9 ++++	4.8	11.7	-6.9	5.4	++++	50	30	30	30	30	
10:2 FTUCA	-9.7 ++++	-2.1	11.7	2.6	-2.5	++++	50	30	30	30	30	
11C1-PF3OUds	2.5 -5.2	-4.9	6.9	-0.6	2.1	-0.9	50 30	30	30	30	30	30
10:2 FTCA	13.5 ++++	-4.5	9.0	-4.0	-14.0	++++	50	30	30	30	30	
Perfluorododecanoic acid	-2.4 -9.2	-4.6	-1.4	-0.3	15.1	2.8	50 30	30	30	30	30	30
10:2 FTS	-23.4 ++++	1.6	10.9	-2.0	13.0	++++	50	30	30	30	30	
NMeFOSE	-2.1 0.6	-3.4	-1.9	-2.7	9.0	0.6	50 30	30	30	30	30	30
NMeFOSA	10.0 ++++	-0.9	-1.0	-3.5	-2.4	-2.2	50	30	30	30	30	30
Perfluorododecanesulfonic acid	13.2 -7.8	-5.0	5.2	-3.1	-1.5	-1.1	50 30	30	30	30	30	30
NEtFOSE	5.2 -3.1	-4.9	-0.6	-1.9	1.9	3.5	50 30	30	30	30	30	30
Perfluorotridecanoic acid	19.3 -15.9	1.6	4.5	-3.4	4.8	-10.9	50 30	30	30	30	30	30
NEtFOSA	12.9 0.5	-11.8	4.6	-3.1	-0.1	-2.9	50 30	30	30	30	30	30
Perfluorotetradecanoic acid	19.4 -12.4	0.2	-0.3	1.3	0.5	-8.7	50 30	30	30	30	30	30
Perfluorohexadecanoic acid	19.4 -10.1	3.8	-4.6	-1.0	2.2	-9.7	50 30	30	30	30	30	30
Perfluorooctadecanoic acid	0.8 4.8	-3.9	-5.0	0.0	1.2	2.1	50 30	30	30	30	30	30
13C4 PFBA	8.2 -1.0	-1.9	0.3	0.6	-3.0	-3.2	30 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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
13C5 PFPeA	12.8 -2.1	2.3	-1.0	-4.1	-1.4	-6.6	30 30	30	30	30	30	30
13C3 PFBS	4.8 -0.5	-0.4	1.7	-3.3	1.1	-3.4	30 30	30	30	30	30	30
M2-4:2 FTS	1.9 ++++	12.4	1.7	-7.7	-8.4	++++	30	30	30	30	30	
13C5 PFHxA	-2.3 14.6	-1.7	0.9	-5.1	-10.1	3.8	30 30	30	30	30	30	30
13C3 HFPO-DA	-4.3 21.3	-1.0	-9.7	-6.5	-3.7	3.9	30 30	30	30	30	30	30
13C3 PFHxS	9.2 4.1	-2.6	5.5	-3.6	-10.9	-1.7	30 30	30	30	30	30	30
13C4 PFHpA	6.4 -2.5	8.8	8.7	-3.6	-16.0	-1.9	30 30	30	30	30	30	30
13C2-2H-Perfluoro-2-octenoic acid	2.5 5.7	-4.1	7.2	-1.1	-10.7	0.5	30 30	30	30	30	30	30
13C2-2-Perfluorohexylethanoic acid	9.3 ++++	3.3	0.1	-2.4	-12.8	2.4	30	30	30	30	30	30
M2-6:2 FTS	9.4 ++++	8.9	6.9	-7.6	-17.5	++++	30	30	30	30	30	
13C8 PFOA	3.8 7.4	0.2	1.6	-0.5	-11.7	-0.9	30 30	30	30	30	30	30
13C8 PFOS	7.8 5.3	3.7	-5.9	1.7	-5.4	-7.3	30 30	30	30	30	30	30
13C9 PFNA	10.7 -7.4	8.0	2.4	1.3	-6.8	-8.3	30 30	30	30	30	30	30
13C2-2H-Perfluoro-2-decenoic acid	5.8 ++++	8.3	-0.1	-2.5	-11.4	++++	30	30	30	30	30	
13C2-2-Perfluorooctylethanoic acid	7.5 ++++	6.4	3.4	-11.5	-5.8	++++	30	30	30	30	30	
13C6 PFDA	15.8 -3.6	10.4	-4.6	-6.7	-5.6	-5.6	30 30	30	30	30	30	30
M2-8:2 FTS	15.1 ++++	3.0	0.9	-5.0	-14.0	++++	30	30	30	30	30	
13C8 FOSA	5.0 -2.1	8.1	3.7	-5.1	-5.8	-3.8	30 30	30	30	30	30	30
d3-NMeFOSAA	6.2 ++++	5.4	-3.2	-5.1	-3.3	++++	30	30	30	30	30	

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 271695

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2022 13:08 Calibration End Date: 07/01/2022 14:15 Calibration ID: 40358

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
13C7 PFUnA	1.9 1.1	8.0	-6.4	4.2	-1.3	-7.4	30 30	30	30	30	30	30
d5-NEtFOSAA	7.1 +++++	4.7	4.9	-6.9	-9.7	+++++	30	30	30	30	30	
13C2-2H-Perfluoro-2-dodecenoic acid	9.0 +++++	11.6	-3.8	-6.5	-10.4	+++++	30	30	30	30	30	
13C2-2-Perfluorodecylethanoic acid	9.6 +++++	4.4	1.0	-7.2	-7.8	+++++	30	30	30	30	30	
13C2-PFDoDA	4.1 8.0	10.2	2.3	-8.4	-11.1	-5.1	30 30	30	30	30	30	30
d7-N-MeFOSE-M	4.2 3.0	10.9	0.3	-6.0	-8.8	-3.7	30 30	30	30	30	30	30
d3-NMePFOSA	2.6 +++++	4.2	1.6	-7.0	-3.5	2.1	30	30	30	30	30	30
d9-N-EtFOSE-M	8.5 1.0	12.7	-3.1	-2.6	-5.7	-10.8	30 30	30	30	30	30	30
d5-NEtPFOSA	7.6 -2.0	4.7	0.1	-1.4	-5.5	-3.4	30 30	30	30	30	30	30
13C2 PFTeDA	3.4 6.4	3.5	3.5	-7.4	-6.4	-3.0	30 30	30	30	30	30	30

Calibration

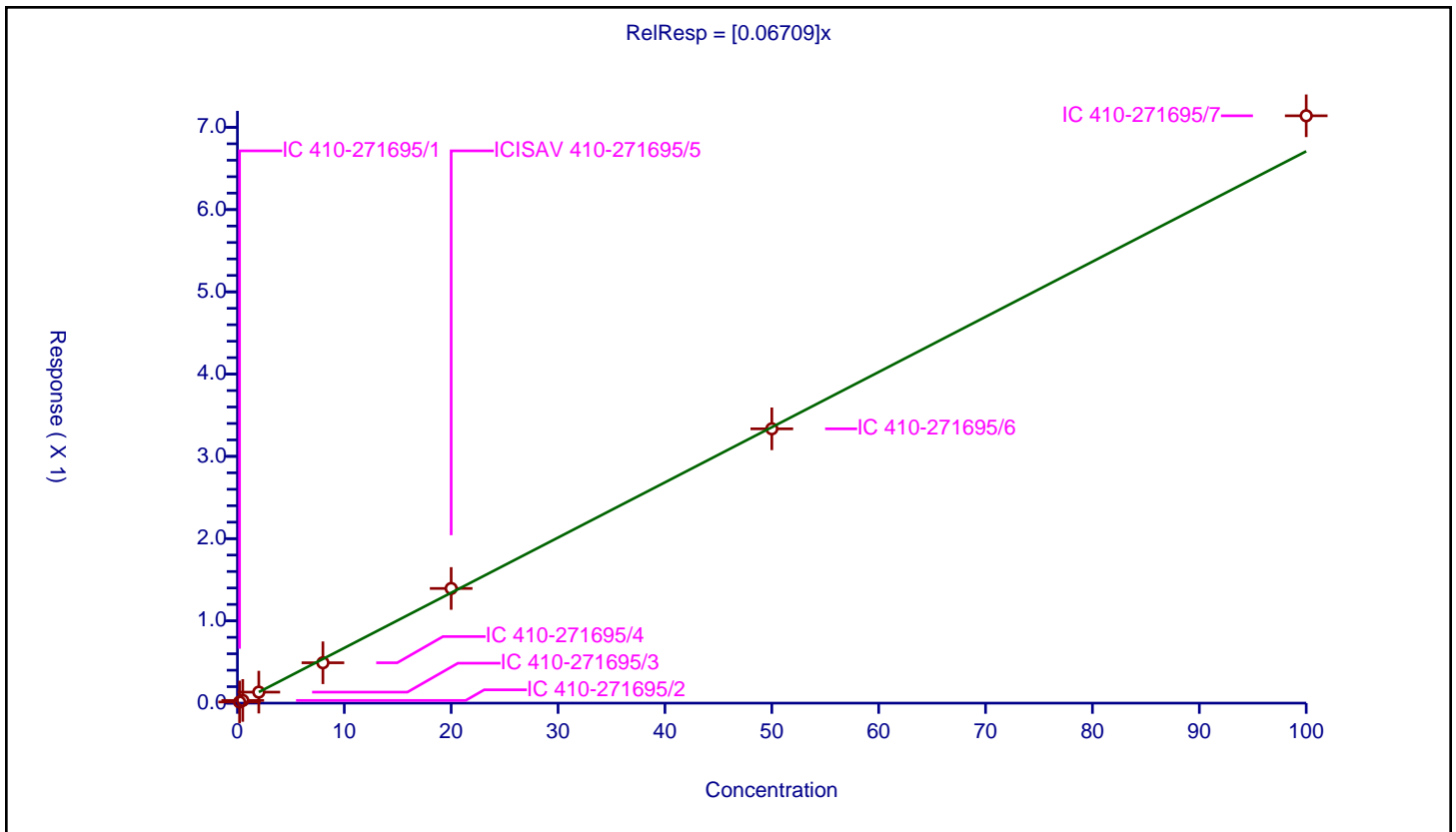
/ MTP

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

Curve Coefficients	
Intercept:	0
Slope:	0.06709

Error Coefficients	
Standard Error:	606000
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 410-271695/1	0.2	0.013636	10.0	2114930.0	0.068182	Y
2	IC 410-271695/2	0.5	0.032698	10.0	2279972.0	0.065396	Y
3	IC 410-271695/3	2.0	0.133779	10.0	2031933.0	0.06689	Y
4	IC 410-271695/4	8.0	0.490793	10.0	2198116.0	0.061349	Y
5	ICISAV 410-271695/5	20.0	1.394111	10.0	2100536.0	0.069706	Y
6	IC 410-271695/6	50.0	3.334859	10.0	1951189.0	0.066697	Y
7	IC 410-271695/7	100.0	7.140567	10.0	1817766.0	0.071406	Y



Calibration

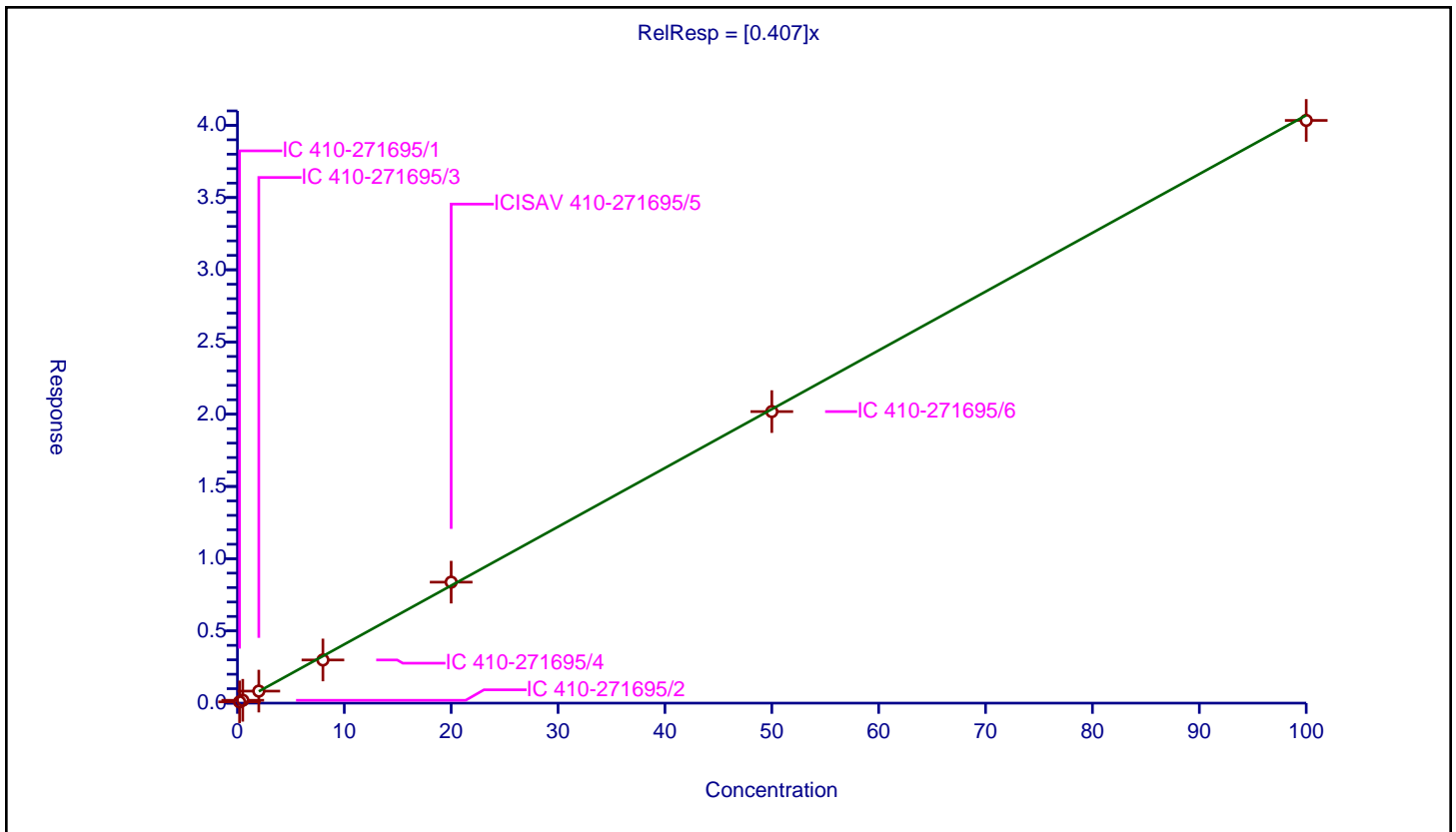
/ PPF Acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.407

Error Coefficients	
Standard Error:	3480000
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 410-271695/1	0.2	0.08796	10.0	2114930.0	0.439802	Y
2	IC 410-271695/2	0.5	0.196884	10.0	2279972.0	0.393768	Y
3	IC 410-271695/3	2.0	0.83203	10.0	2031933.0	0.416015	Y
4	IC 410-271695/4	8.0	2.987513	10.0	2198116.0	0.373439	Y
5	ICISAV 410-271695/5	20.0	8.374791	10.0	2100536.0	0.41874	Y
6	IC 410-271695/6	50.0	20.183032	10.0	1951189.0	0.403661	Y
7	IC 410-271695/7	100.0	40.340126	10.0	1817766.0	0.403401	Y



Calibration

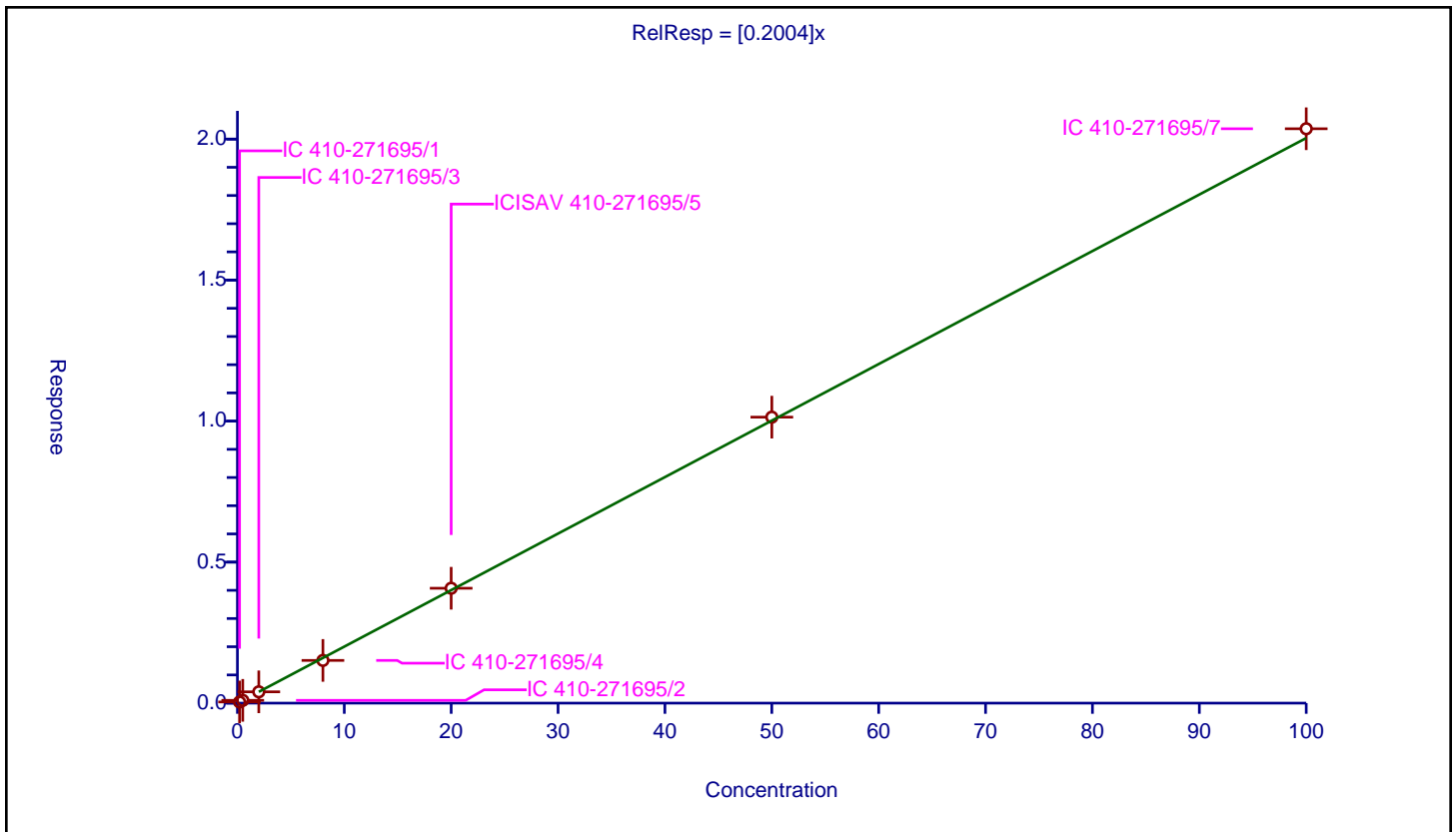
/ PFMOAA

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

Curve Coefficients	
Intercept:	0
Slope:	0.2004

Error Coefficients	
Standard Error:	1750000
Relative Standard Error:	2.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.041131	10.0	2114930.0	0.205657	Y
2	IC 410-271695/2	0.5	0.098444	10.0	2279972.0	0.196888	Y
3	IC 410-271695/3	2.0	0.401125	10.0	2031933.0	0.200563	Y
4	IC 410-271695/4	8.0	1.514588	10.0	2198116.0	0.189323	Y
5	ICISAV 410-271695/5	20.0	4.073884	10.0	2100536.0	0.203694	Y
6	IC 410-271695/6	50.0	10.140509	10.0	1951189.0	0.20281	Y
7	IC 410-271695/7	100.0	20.366323	10.0	1817766.0	0.203663	Y



Calibration

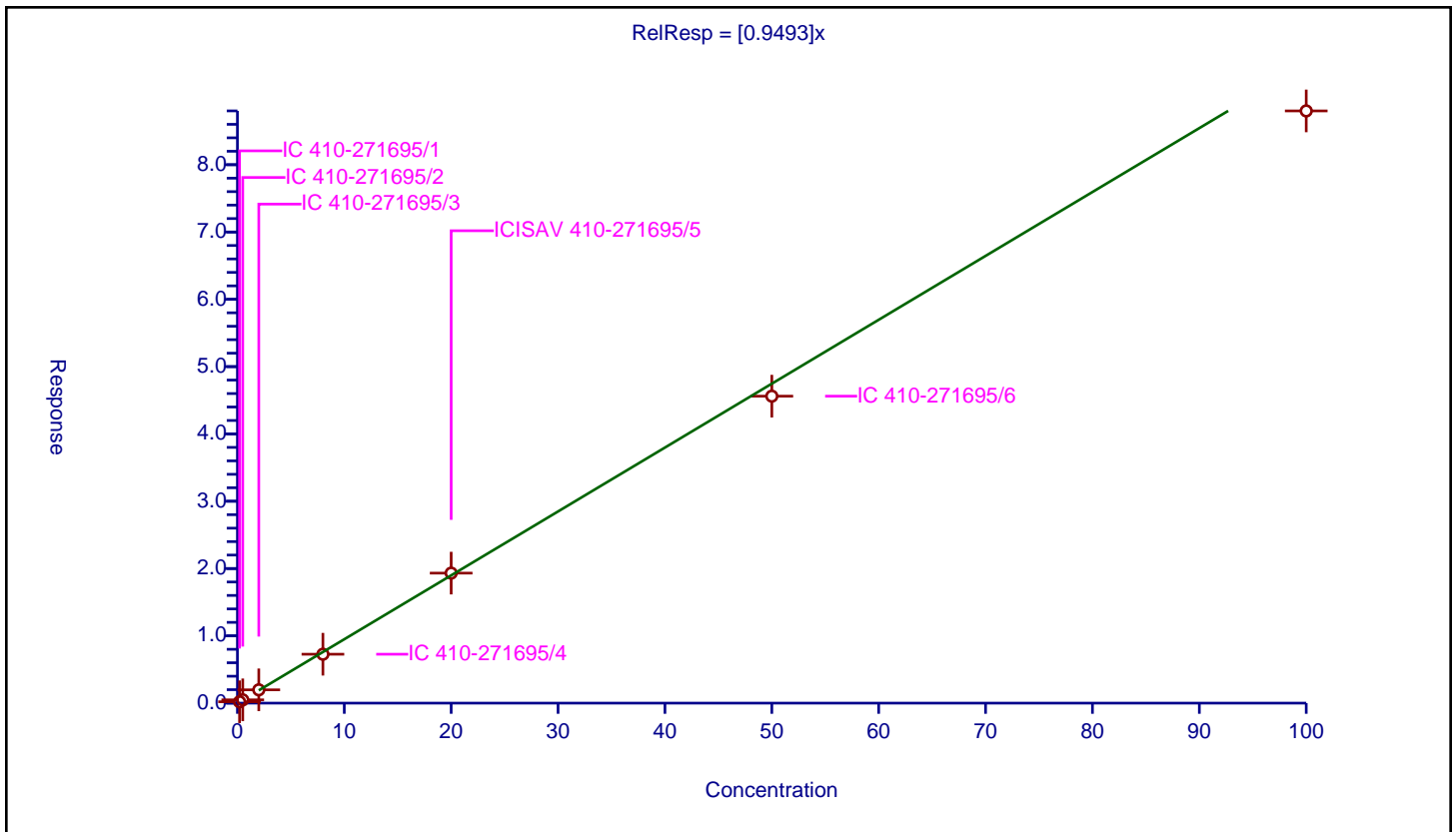
/ Perfluorobutanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.9493

Error Coefficients	
Standard Error:	7680000
Relative Standard Error:	5.2
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.203028	10.0	2114930.0	1.01514	Y
2	IC 410-271695/2	0.5	0.48787	10.0	2279972.0	0.97574	Y
3	IC 410-271695/3	2.0	1.976099	10.0	2031933.0	0.988049	Y
4	IC 410-271695/4	8.0	7.266555	10.0	2198116.0	0.908319	Y
5	ICISAV 410-271695/5	20.0	19.316908	10.0	2100536.0	0.965845	Y
6	IC 410-271695/6	50.0	45.611148	10.0	1951189.0	0.912223	Y
7	IC 410-271695/7	100.0	87.994808	10.0	1817766.0	0.879948	Y



Calibration

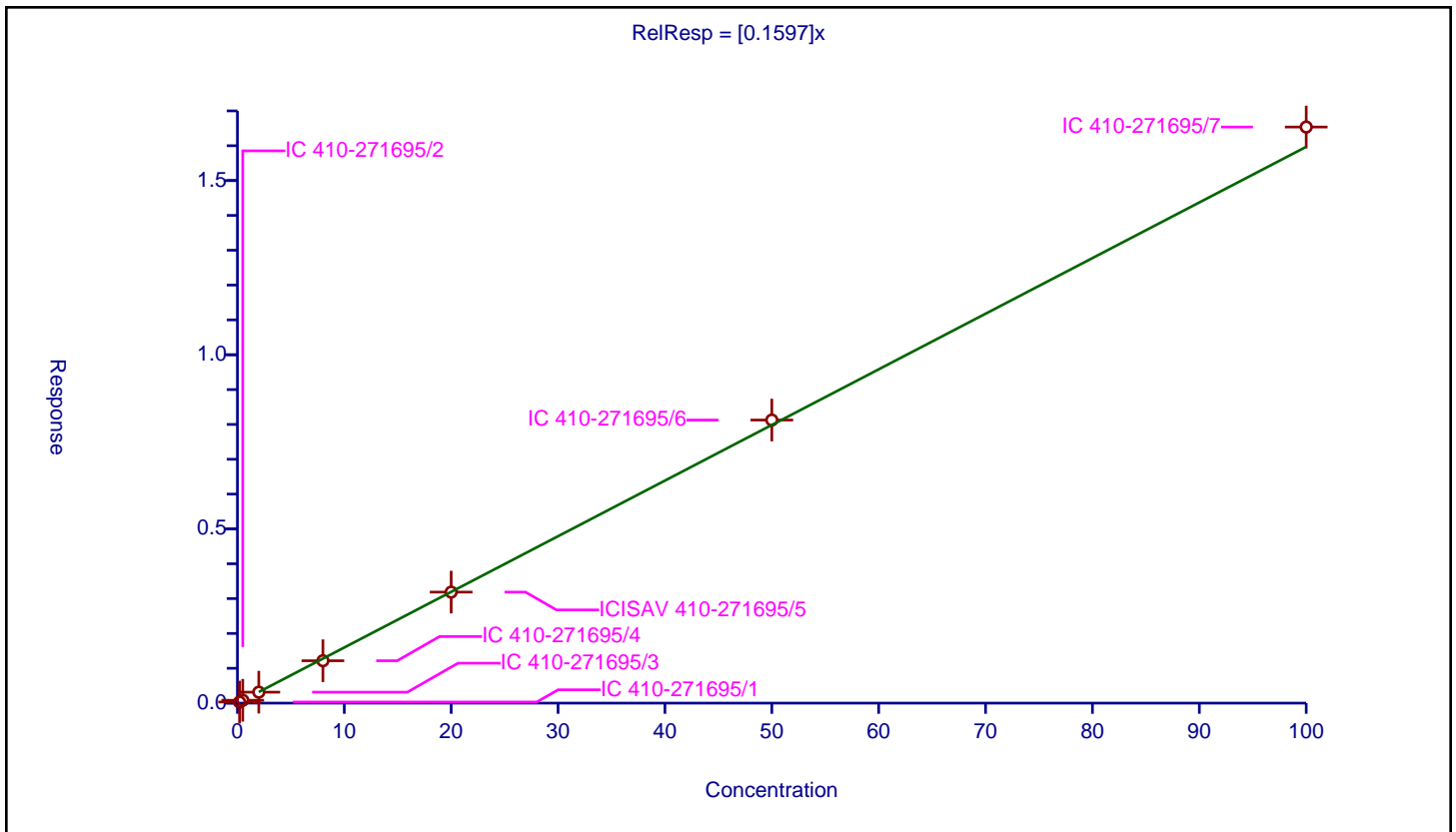
/ R-EVE

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

Curve Coefficients	
Intercept:	0
Slope:	0.1597

Error Coefficients	
Standard Error:	1420000
Relative Standard Error:	2.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.031415	10.0	2114930.0	0.157074	Y
2	IC 410-271695/2	0.5	0.082014	10.0	2279972.0	0.164028	Y
3	IC 410-271695/3	2.0	0.31471	10.0	2031933.0	0.157355	Y
4	IC 410-271695/4	8.0	1.216856	10.0	2198116.0	0.152107	Y
5	ICISAV 410-271695/5	20.0	3.18682	10.0	2100536.0	0.159341	Y
6	IC 410-271695/6	50.0	8.125589	10.0	1951189.0	0.162512	Y
7	IC 410-271695/7	100.0	16.536969	10.0	1817766.0	0.16537	Y



Calibration

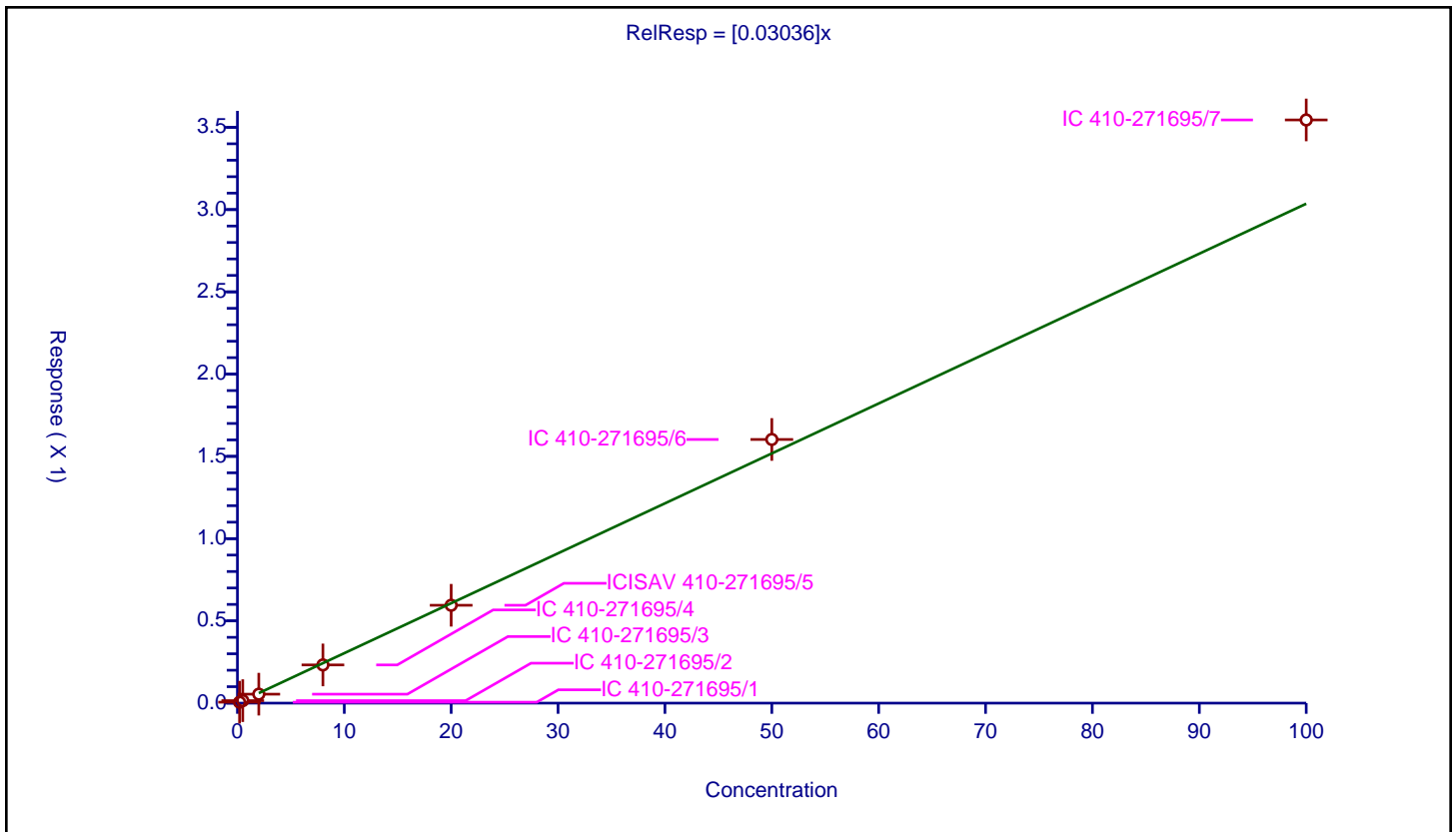
/ R-PSDA

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

Curve Coefficients	
Intercept:	0
Slope:	0.03036

Error Coefficients	
Standard Error:	482000
Relative Standard Error:	8.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.005732	9.3	3071277.0	0.028661	Y
2	IC 410-271695/2	0.5	0.015157	9.3	3472908.0	0.030314	Y
3	IC 410-271695/3	2.0	0.054478	9.3	3088859.0	0.027239	Y
4	IC 410-271695/4	8.0	0.232309	9.3	3169886.0	0.029039	Y
5	ICISAV 410-271695/5	20.0	0.594826	9.3	3281341.0	0.029741	Y
6	IC 410-271695/6	50.0	1.602732	9.3	2918931.0	0.032055	Y
7	IC 410-271695/7	100.0	3.54488	9.3	2740387.0	0.035449	Y



Calibration

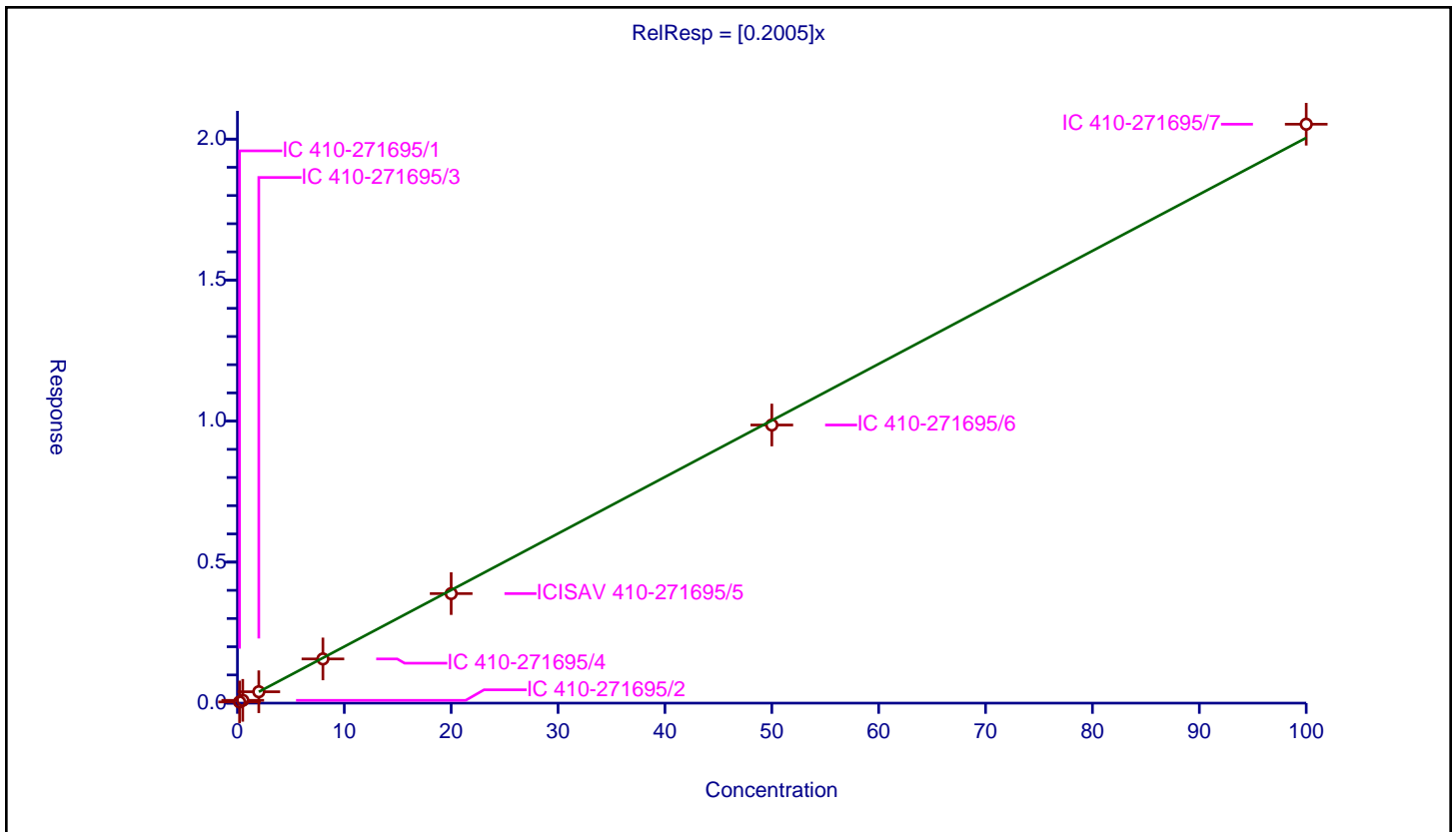
/ Hydrolyzed PSDA

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

Curve Coefficients	
Intercept:	0
Slope:	0.2005

Error Coefficients	
Standard Error:	2840000
Relative Standard Error:	2.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.04212	9.3	3071277.0	0.210601	Y
2	IC 410-271695/2	0.5	0.099084	9.3	3472908.0	0.198168	Y
3	IC 410-271695/3	2.0	0.403649	9.3	3088859.0	0.201824	Y
4	IC 410-271695/4	8.0	1.567177	9.3	3169886.0	0.195897	Y
5	ICISAV 410-271695/5	20.0	3.883754	9.3	3281341.0	0.194188	Y
6	IC 410-271695/6	50.0	9.861387	9.3	2918931.0	0.197228	Y
7	IC 410-271695/7	100.0	20.527414	9.3	2740387.0	0.205274	Y



Calibration

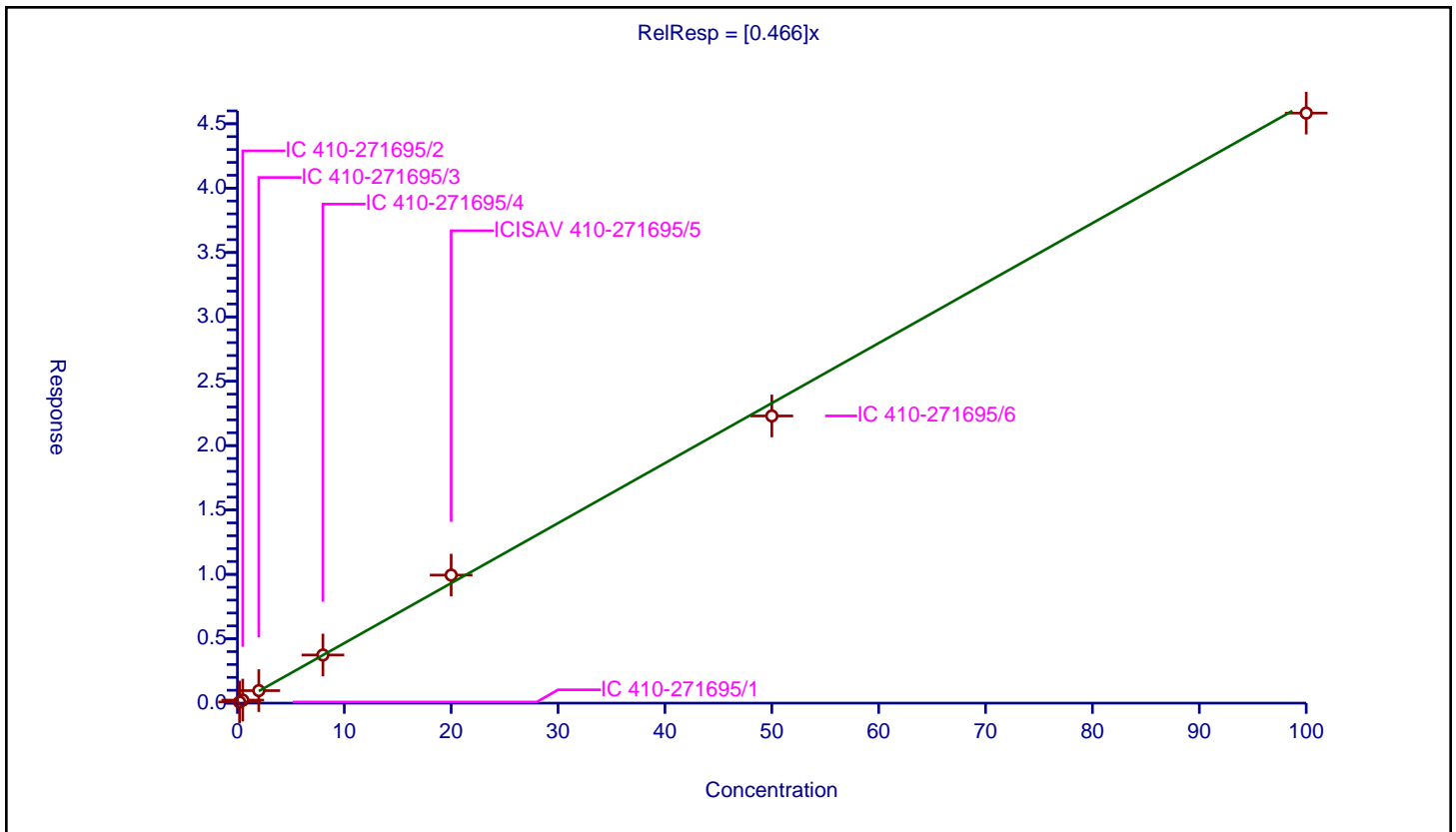
/ PMPA

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

Curve Coefficients	
Intercept:	0
Slope:	0.466

Error Coefficients	
Standard Error:	3950000
Relative Standard Error:	4.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.087908	10.0	2114930.0	0.439542	Y
2	IC 410-271695/2	0.5	0.234183	10.0	2279972.0	0.468365	Y
3	IC 410-271695/3	2.0	0.970244	10.0	2031933.0	0.485122	Y
4	IC 410-271695/4	8.0	3.739107	10.0	2198116.0	0.467388	Y
5	ICISAV 410-271695/5	20.0	9.945347	10.0	2100536.0	0.497267	Y
6	IC 410-271695/6	50.0	22.30522	10.0	1951189.0	0.446104	Y
7	IC 410-271695/7	100.0	45.827598	10.0	1817766.0	0.458276	Y



Calibration

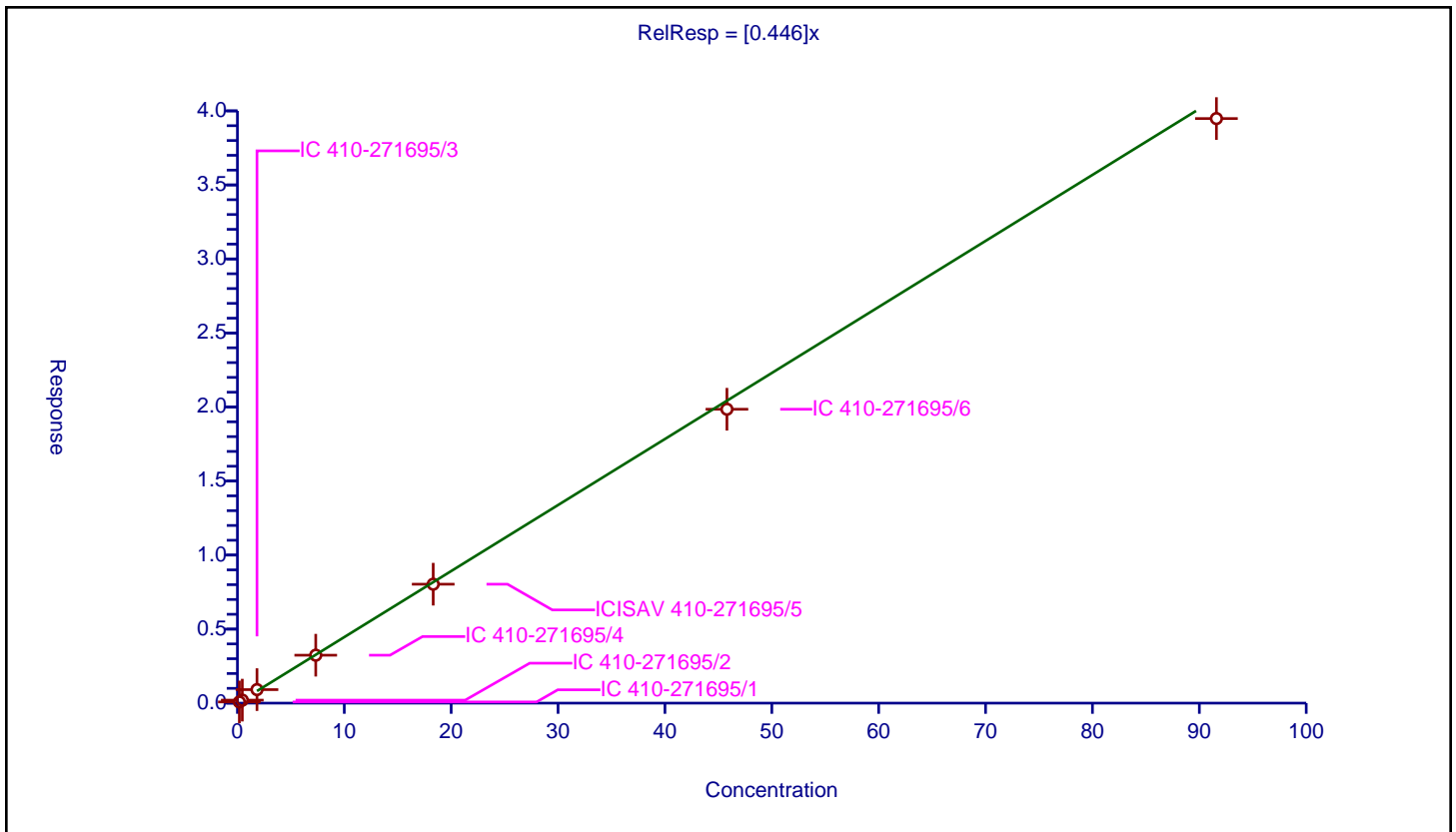
/ PFPrS

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

Curve Coefficients	
Intercept:	0
Slope:	0.446

Error Coefficients	
Standard Error:	3410000
Relative Standard Error:	5.3
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.1832	0.0797	10.0	2114930.0	0.435044	Y
2	IC 410-271695/2	0.458	0.20306	10.0	2279972.0	0.443361	Y
3	IC 410-271695/3	1.832	0.913362	10.0	2031933.0	0.49856	Y
4	IC 410-271695/4	7.328	3.237832	10.0	2198116.0	0.441844	Y
5	ICISAV 410-271695/5	18.32	8.032745	10.0	2100536.0	0.438469	Y
6	IC 410-271695/6	45.8	19.850225	10.0	1951189.0	0.433411	Y
7	IC 410-271695/7	91.6	39.481875	10.0	1817766.0	0.431025	Y



Calibration

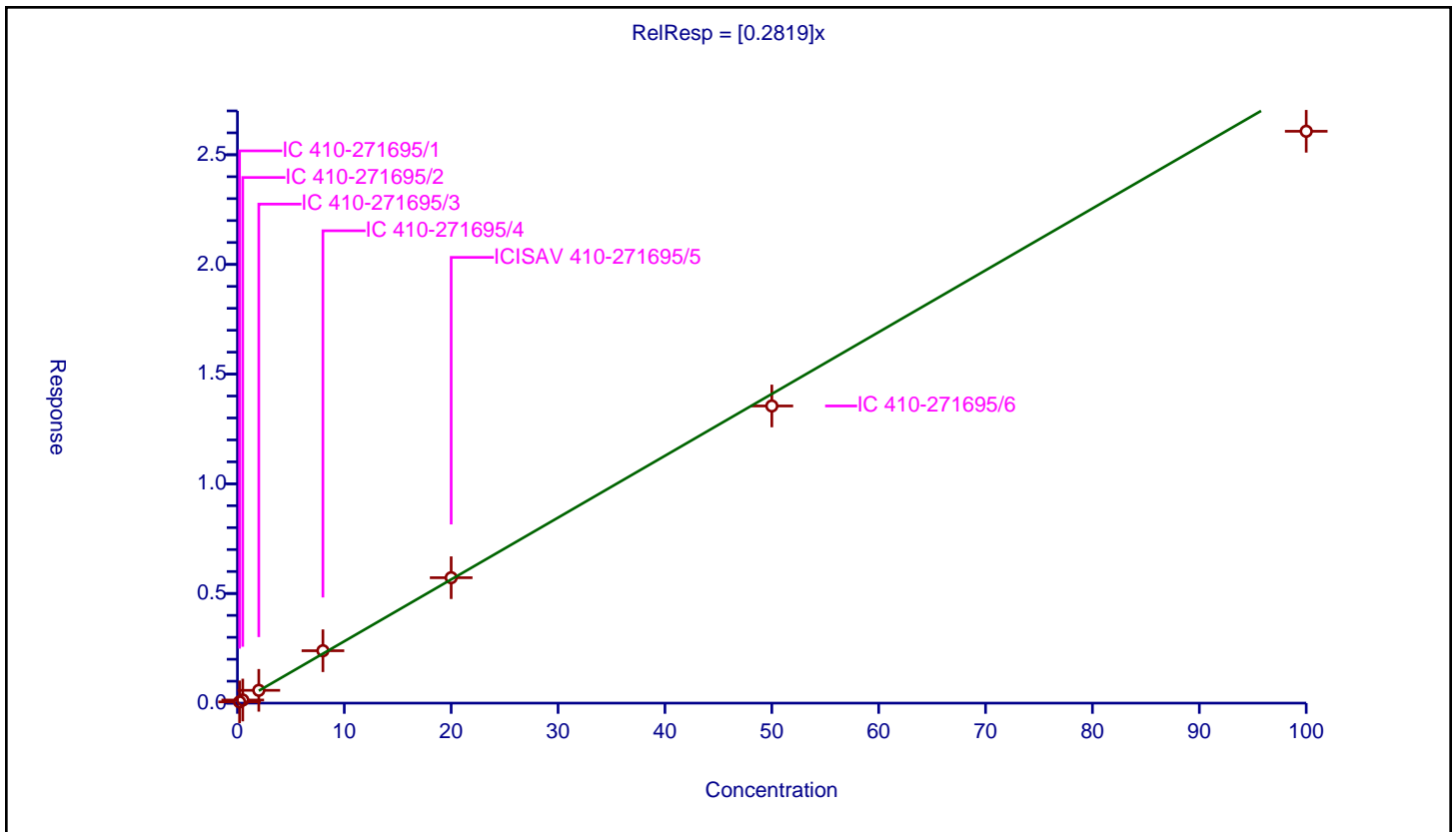
/ NVHOS

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

Curve Coefficients	
Intercept:	0
Slope:	0.2819

Error Coefficients	
Standard Error:	3690000
Relative Standard Error:	4.5
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.056537	9.3	3071277.0	0.282684	Y
2	IC 410-271695/2	0.5	0.14126	9.3	3472908.0	0.282521	Y
3	IC 410-271695/3	2.0	0.583714	9.3	3088859.0	0.291857	Y
4	IC 410-271695/4	8.0	2.389491	9.3	3169886.0	0.298686	Y
5	ICISAV 410-271695/5	20.0	5.717888	9.3	3281341.0	0.285894	Y
6	IC 410-271695/6	50.0	13.547419	9.3	2918931.0	0.270948	Y
7	IC 410-271695/7	100.0	26.070945	9.3	2740387.0	0.260709	Y



Calibration

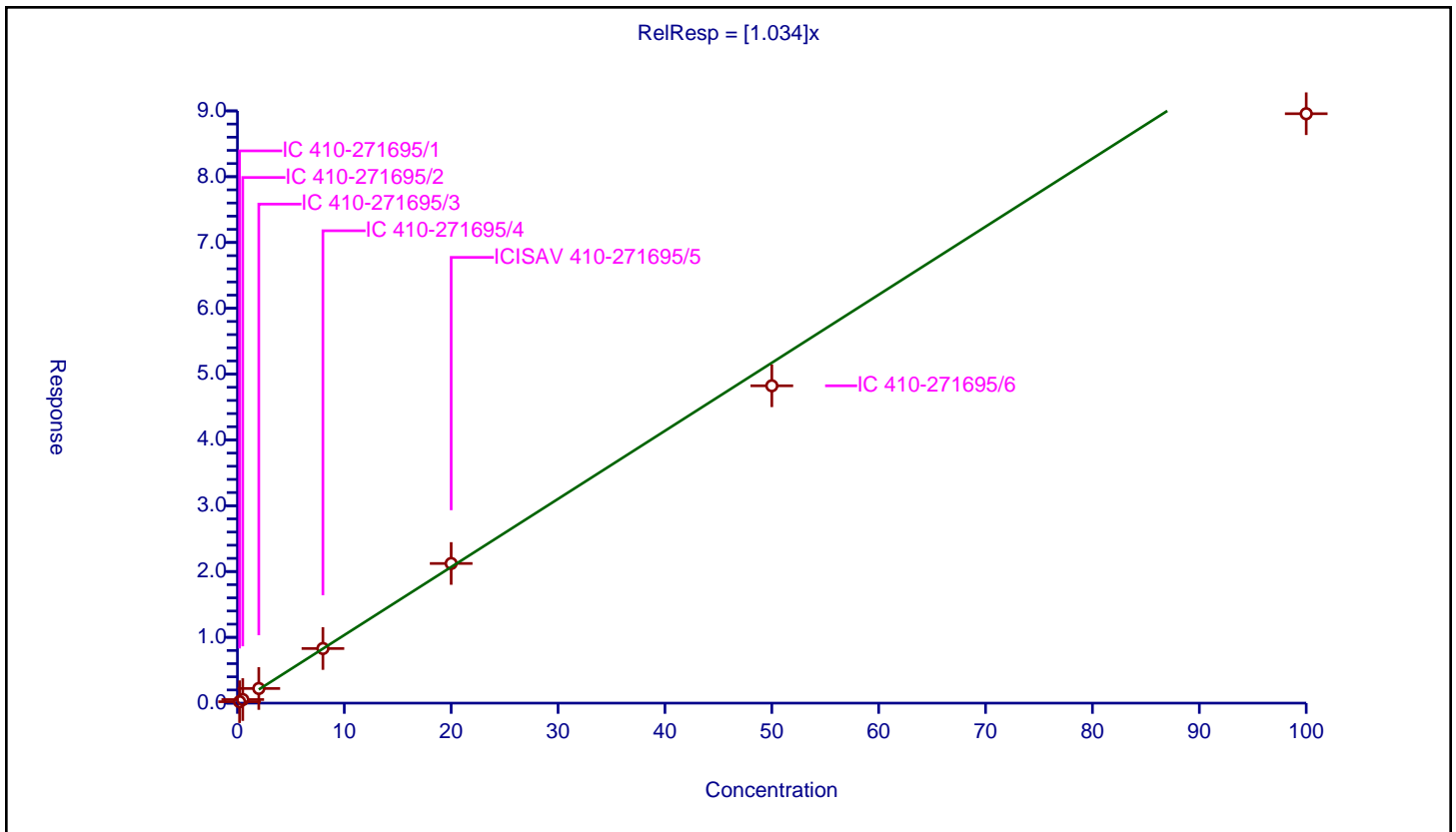
/ PFECA F

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

Curve Coefficients	
Intercept:	0
Slope:	1.034

Error Coefficients	
Standard Error:	7930000
Relative Standard Error:	7.5
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.215511	10.0	2114930.0	1.077553	Y
2	IC 410-271695/2	0.5	0.54577	10.0	2279972.0	1.09154	Y
3	IC 410-271695/3	2.0	2.22589	10.0	2031933.0	1.112945	Y
4	IC 410-271695/4	8.0	8.300822	10.0	2198116.0	1.037603	Y
5	ICISAV 410-271695/5	20.0	21.222826	10.0	2100536.0	1.061141	Y
6	IC 410-271695/6	50.0	48.226235	10.0	1951189.0	0.964525	Y
7	IC 410-271695/7	100.0	89.570181	10.0	1817766.0	0.895702	Y



Calibration

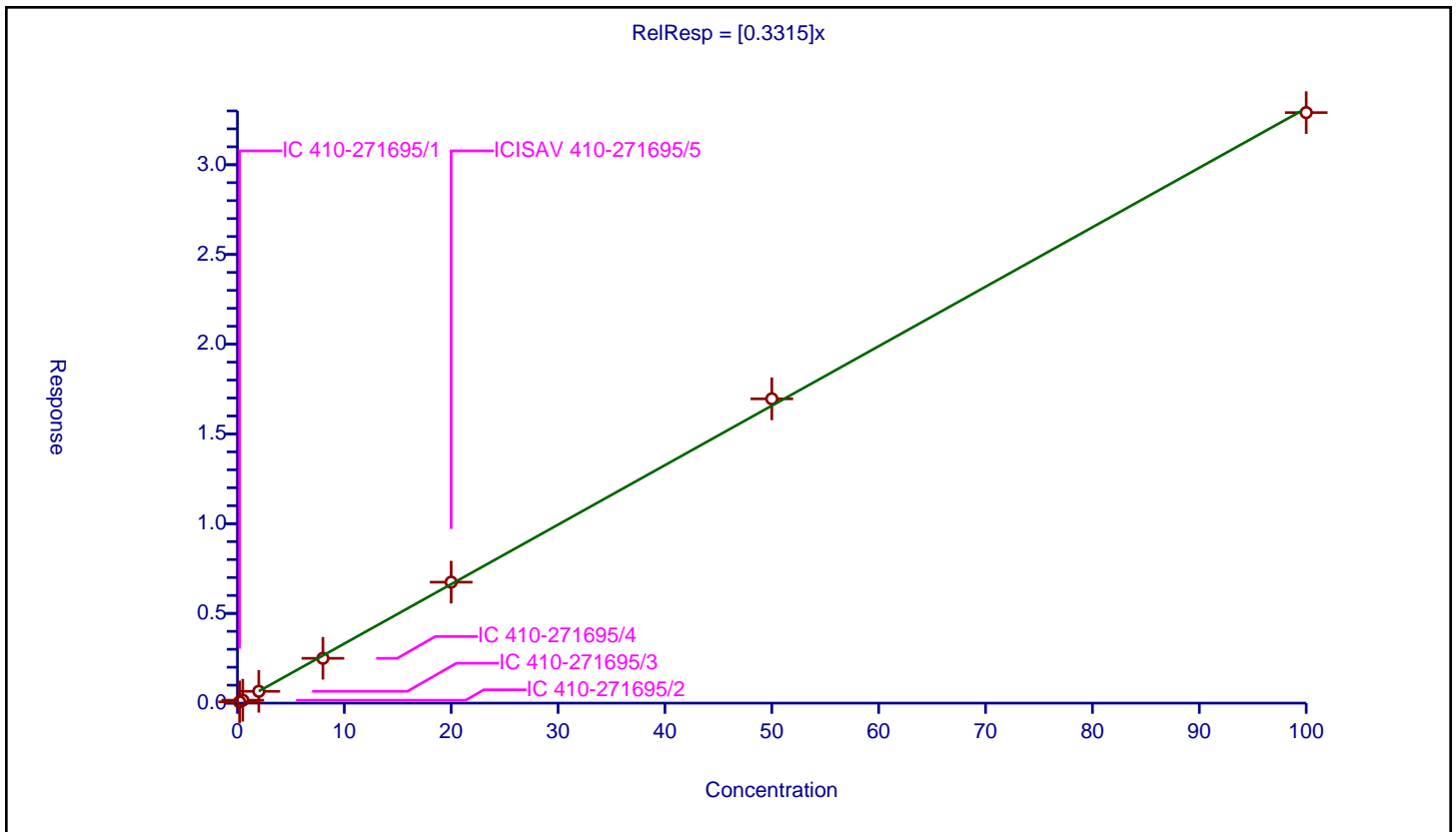
/ PFO2HxA

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

Curve Coefficients	
Intercept:	0
Slope:	0.3315

Error Coefficients	
Standard Error:	2860000
Relative Standard Error:	3.5
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.069728	10.0	2114930.0	0.34864	Y
2	IC 410-271695/2	0.5	0.162541	10.0	2279972.0	0.325083	Y
3	IC 410-271695/3	2.0	0.658472	10.0	2031933.0	0.329236	Y
4	IC 410-271695/4	8.0	2.496929	10.0	2198116.0	0.312116	Y
5	ICISAV 410-271695/5	20.0	6.739199	10.0	2100536.0	0.33696	Y
6	IC 410-271695/6	50.0	16.956169	10.0	1951189.0	0.339123	Y
7	IC 410-271695/7	100.0	32.905049	10.0	1817766.0	0.32905	Y



Calibration

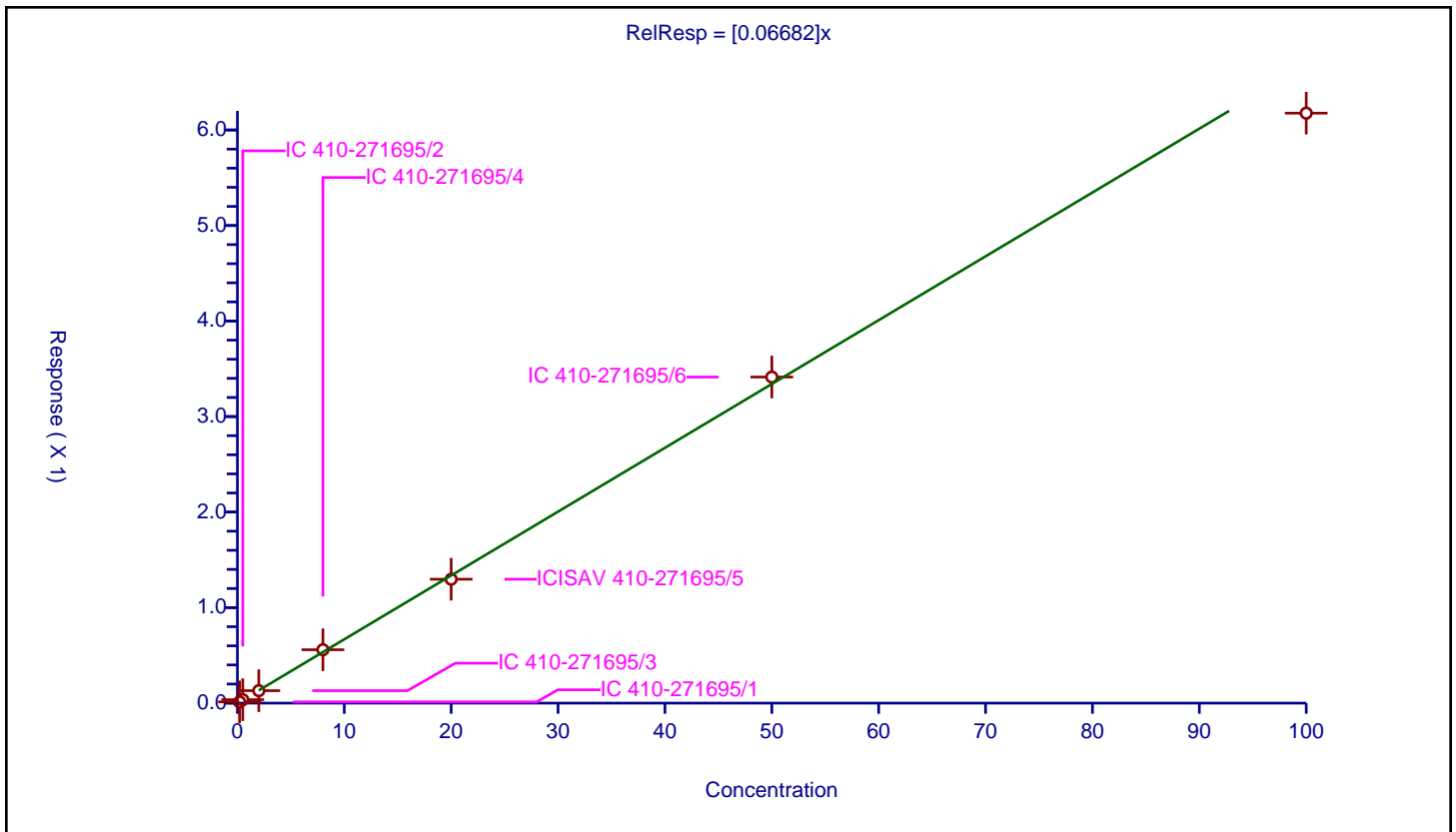
/ 3:3 FTCA

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

Curve Coefficients	
Intercept:	0
Slope:	0.06682

Error Coefficients	
Standard Error:	480000
Relative Standard Error:	5.3
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.013101	10.0	1964754.0	0.065504	Y
2	IC 410-271695/2	0.5	0.036182	10.0	2119591.0	0.072363	Y
3	IC 410-271695/3	2.0	0.130251	10.0	1788004.0	0.065126	Y
4	IC 410-271695/4	8.0	0.558775	10.0	1867710.0	0.069847	Y
5	ICISAV 410-271695/5	20.0	1.297126	10.0	1902907.0	0.064856	Y
6	IC 410-271695/6	50.0	3.413674	10.0	1677990.0	0.068273	Y
7	IC 410-271695/7	100.0	6.176161	10.0	1602175.0	0.061762	Y



Calibration

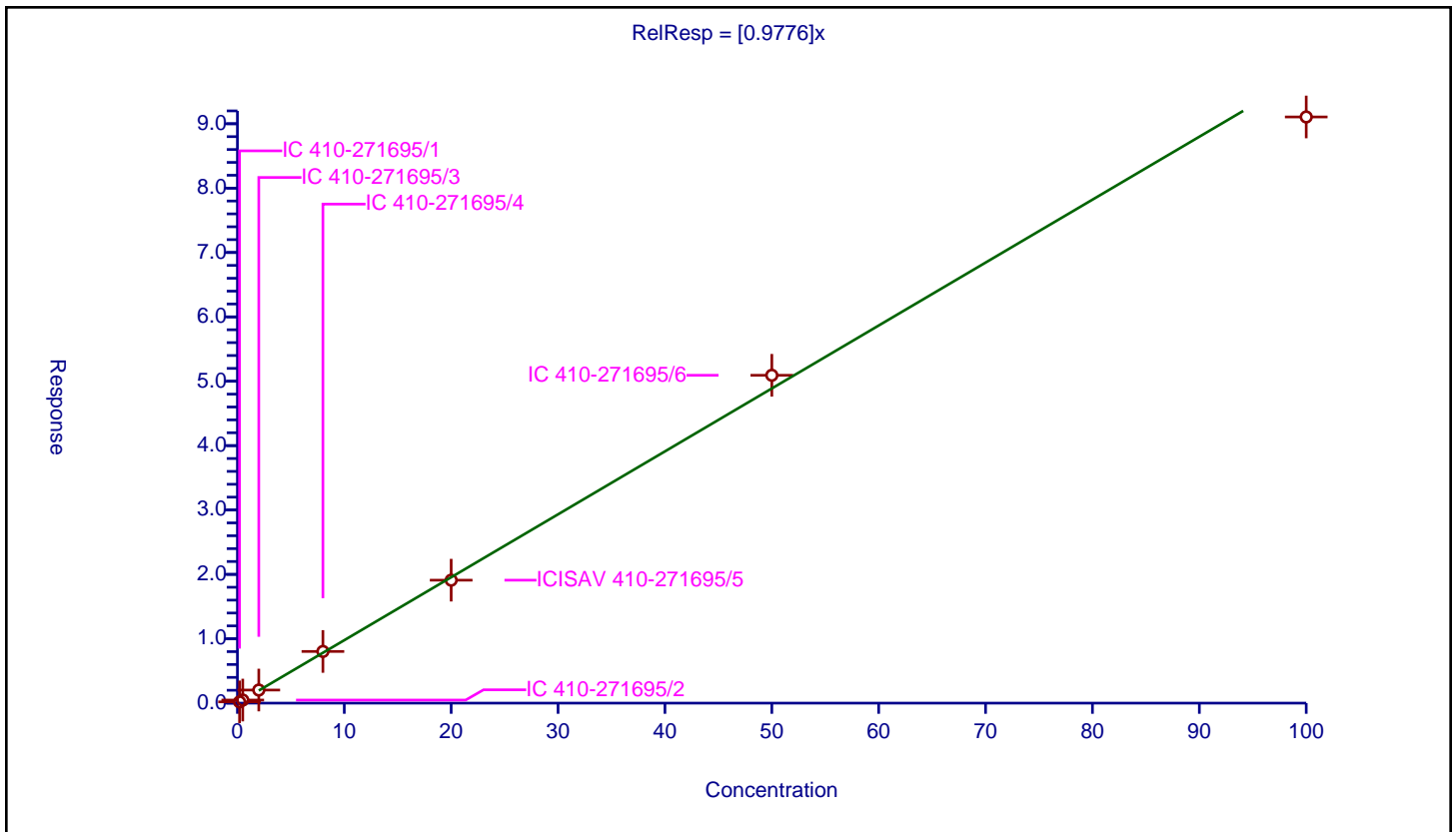
/ Perfluoropentanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.9776

Error Coefficients	
Standard Error:	7090000
Relative Standard Error:	4.1
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.196615	10.0	1964754.0	0.983075	Y
2	IC 410-271695/2	0.5	0.477734	10.0	2119591.0	0.955467	Y
3	IC 410-271695/3	2.0	2.034615	10.0	1788004.0	1.017308	Y
4	IC 410-271695/4	8.0	8.027146	10.0	1867710.0	1.003393	Y
5	ICISAV 410-271695/5	20.0	19.099173	10.0	1902907.0	0.954959	Y
6	IC 410-271695/6	50.0	50.928182	10.0	1677990.0	1.018564	Y
7	IC 410-271695/7	100.0	91.056464	10.0	1602175.0	0.910565	Y



Calibration

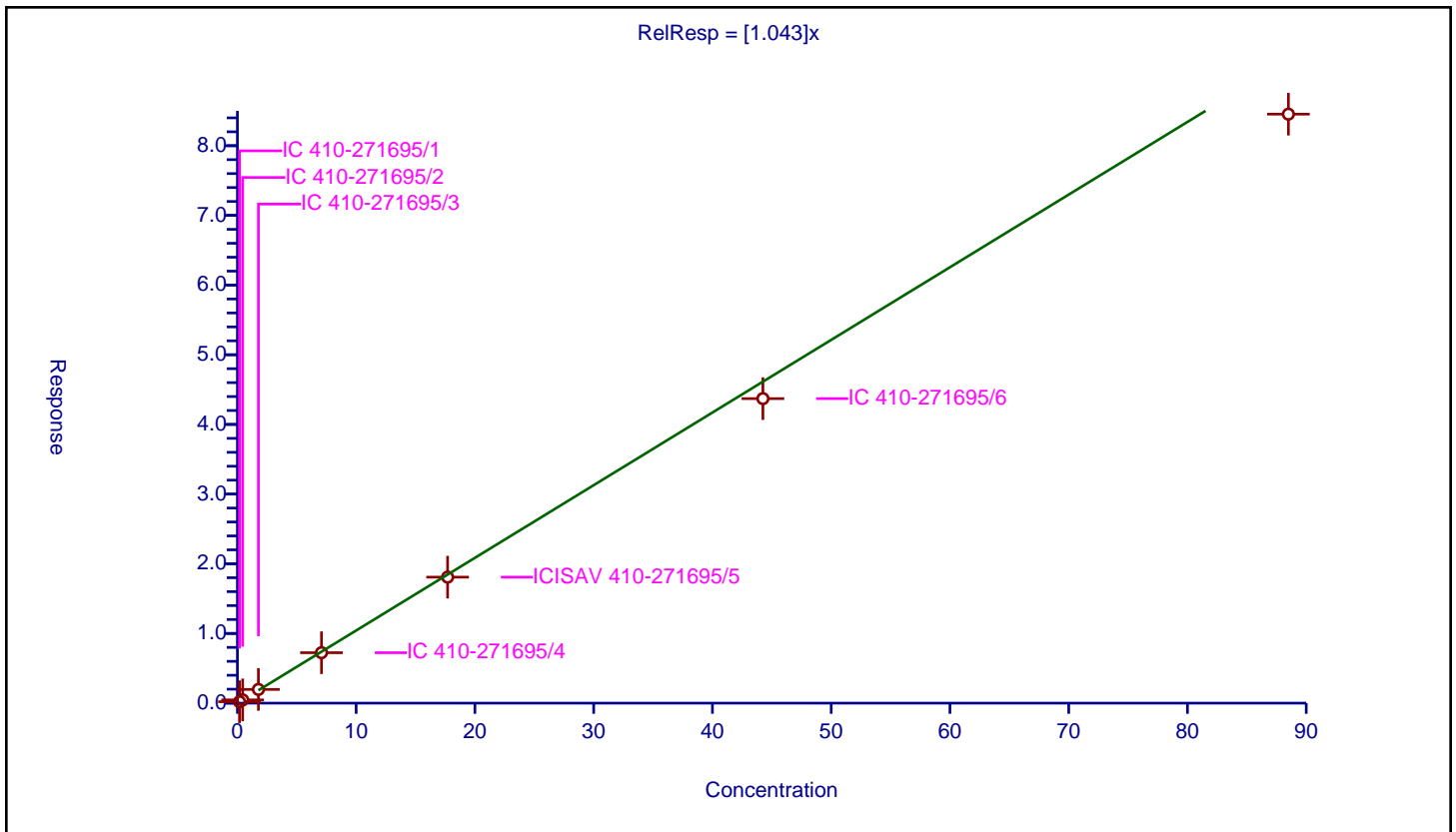
/ Perfluorobutanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.043

Error Coefficients	
Standard Error:	11900000
Relative Standard Error:	6.6
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.177	0.204121	9.3	3071277.0	1.153228	Y
2	IC 410-271695/2	0.4425	0.463971	9.3	3472908.0	1.048521	Y
3	IC 410-271695/3	1.77	1.965069	9.3	3088859.0	1.110209	Y
4	IC 410-271695/4	7.08	7.23649	9.3	3169886.0	1.022103	Y
5	ICISAV 410-271695/5	17.7	18.081383	9.3	3281341.0	1.021547	Y
6	IC 410-271695/6	44.25	43.705072	9.3	2918931.0	0.987685	Y
7	IC 410-271695/7	88.5	84.531523	9.3	2740387.0	0.955158	Y



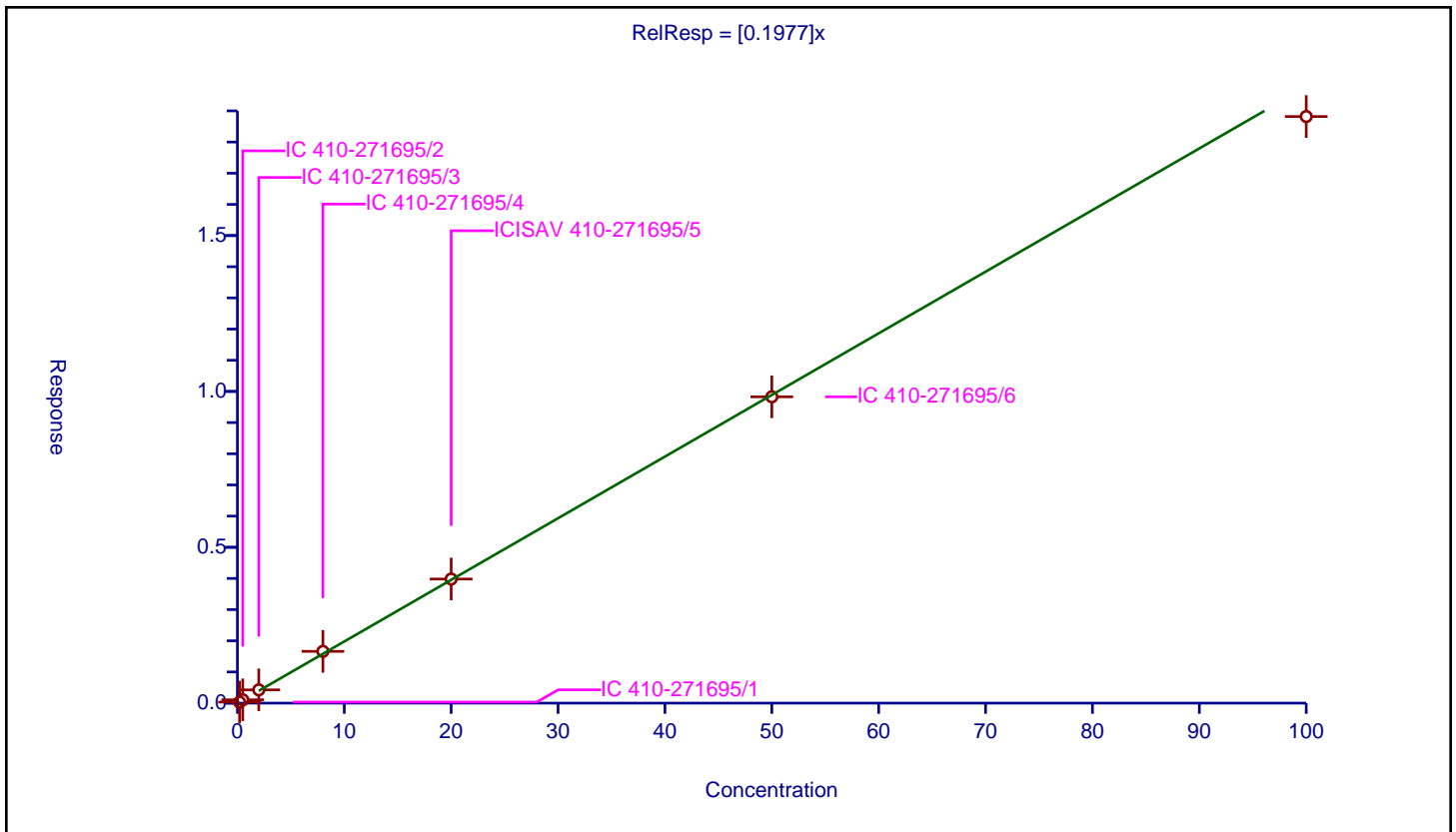
Calibration

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

Curve Coefficients	
Intercept:	0
Slope:	0.1977

Error Coefficients	
Standard Error:	1640000
Relative Standard Error:	8.4
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.033282	10.0	2114930.0	0.166412	Y
2	IC 410-271695/2	0.5	0.106576	10.0	2279972.0	0.213152	Y
3	IC 410-271695/3	2.0	0.426175	10.0	2031933.0	0.213088	Y
4	IC 410-271695/4	8.0	1.660822	10.0	2198116.0	0.207603	Y
5	ICISAV 410-271695/5	20.0	3.981684	10.0	2100536.0	0.199084	Y
6	IC 410-271695/6	50.0	9.827136	10.0	1951189.0	0.196543	Y
7	IC 410-271695/7	100.0	18.818588	10.0	1817766.0	0.188186	Y



Calibration

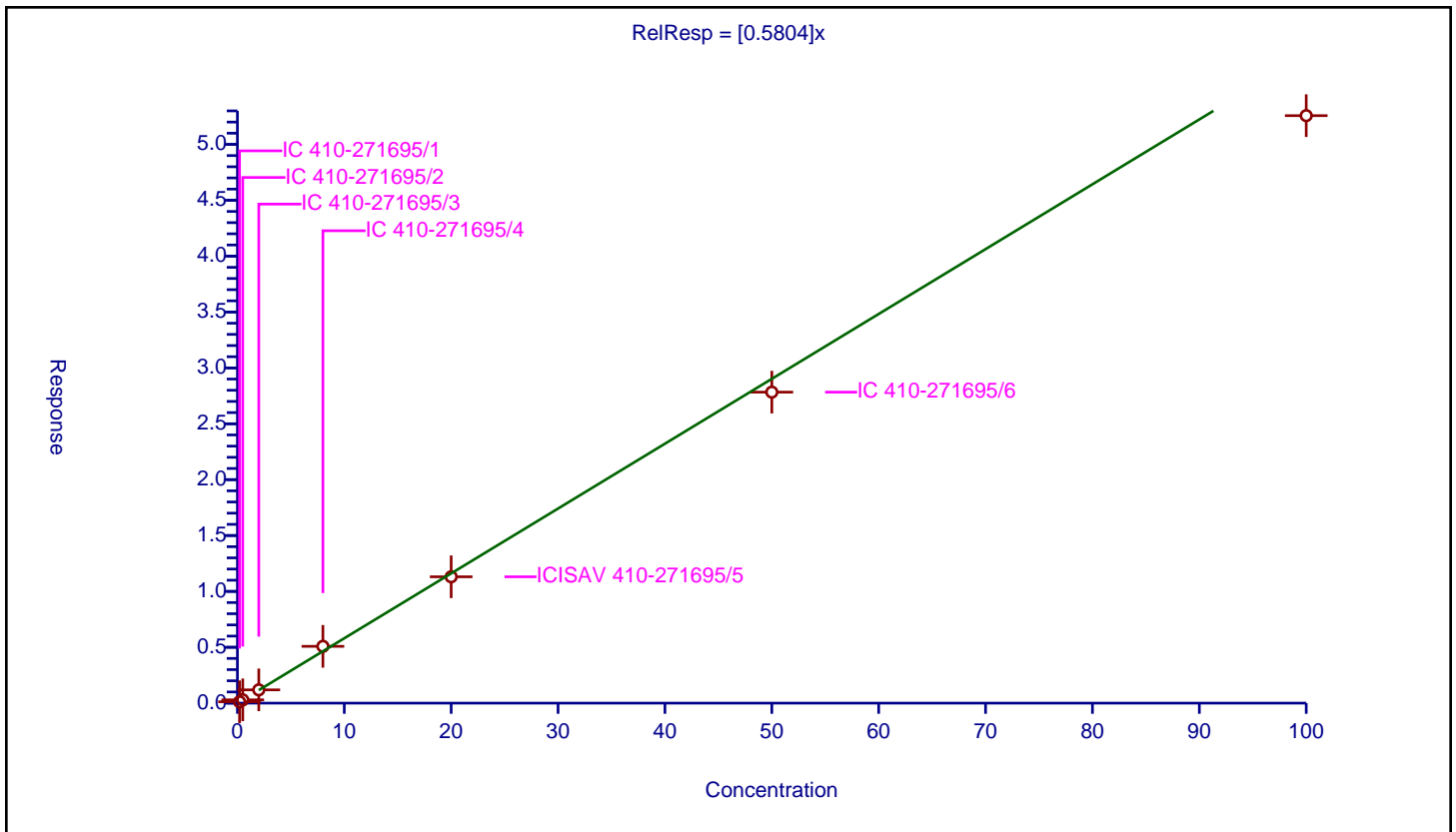
/ PFECA A

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

Curve Coefficients	
Intercept:	0
Slope:	0.5804

Error Coefficients	
Standard Error:	7480000
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 410-271695/1	0.2	0.119754	9.3	3071277.0	0.598768	Y
2	IC 410-271695/2	0.5	0.293412	9.3	3472908.0	0.586823	Y
3	IC 410-271695/3	2.0	1.188398	9.3	3088859.0	0.594199	Y
4	IC 410-271695/4	8.0	5.082372	9.3	3169886.0	0.635296	Y
5	ICISAV 410-271695/5	20.0	11.30701	9.3	3281341.0	0.56535	Y
6	IC 410-271695/6	50.0	27.830097	9.3	2918931.0	0.556602	Y
7	IC 410-271695/7	100.0	52.574038	9.3	2740387.0	0.52574	Y



Calibration

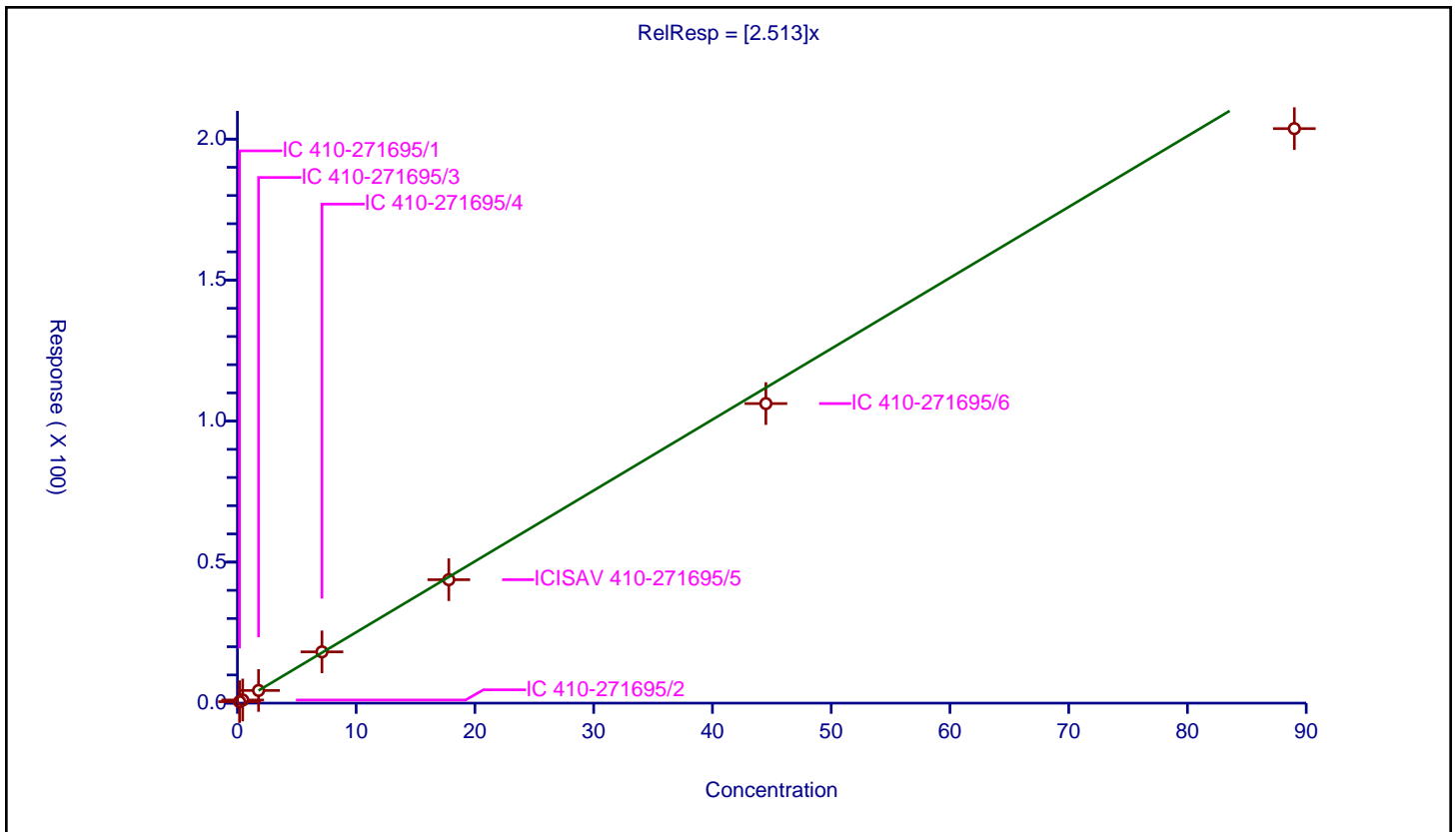
/ PES

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

Curve Coefficients	
Intercept:	0
Slope:	2.513

Error Coefficients	
Standard Error:	28800000
Relative Standard Error:	7.5
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.178	0.514757	9.3	3071277.0	2.891896	Y
2	IC 410-271695/2	0.445	1.108523	9.3	3472908.0	2.491064	Y
3	IC 410-271695/3	1.78	4.489133	9.3	3088859.0	2.521985	Y
4	IC 410-271695/4	7.12	18.182981	9.3	3169886.0	2.553789	Y
5	ICISAV 410-271695/5	17.8	43.766835	9.3	3281341.0	2.458811	Y
6	IC 410-271695/6	44.5	106.216049	9.3	2918931.0	2.386878	Y
7	IC 410-271695/7	89.0	203.706138	9.3	2740387.0	2.288833	Y



Calibration

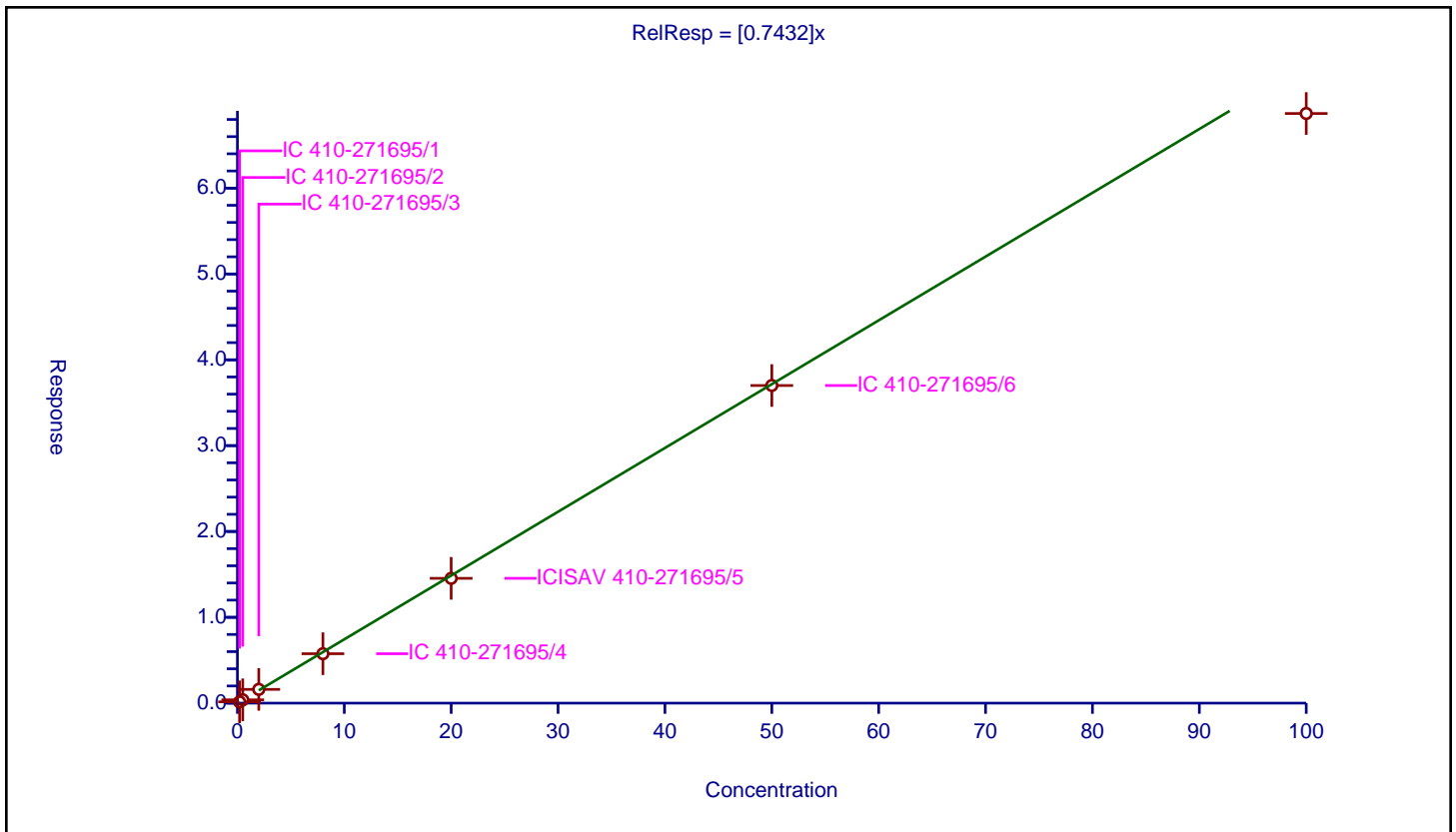
/ PFECA B

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

Curve Coefficients	
Intercept:	0
Slope:	0.7432

Error Coefficients	
Standard Error:	9790000
Relative Standard Error:	5.0
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.15077	9.3	3071277.0	0.75385	Y
2	IC 410-271695/2	0.5	0.386288	9.3	3472908.0	0.772577	Y
3	IC 410-271695/3	2.0	1.603864	9.3	3088859.0	0.801932	Y
4	IC 410-271695/4	8.0	5.759031	9.3	3169886.0	0.719879	Y
5	ICISAV 410-271695/5	20.0	14.539647	9.3	3281341.0	0.726982	Y
6	IC 410-271695/6	50.0	37.00488	9.3	2918931.0	0.740098	Y
7	IC 410-271695/7	100.0	68.696393	9.3	2740387.0	0.686964	Y



Calibration

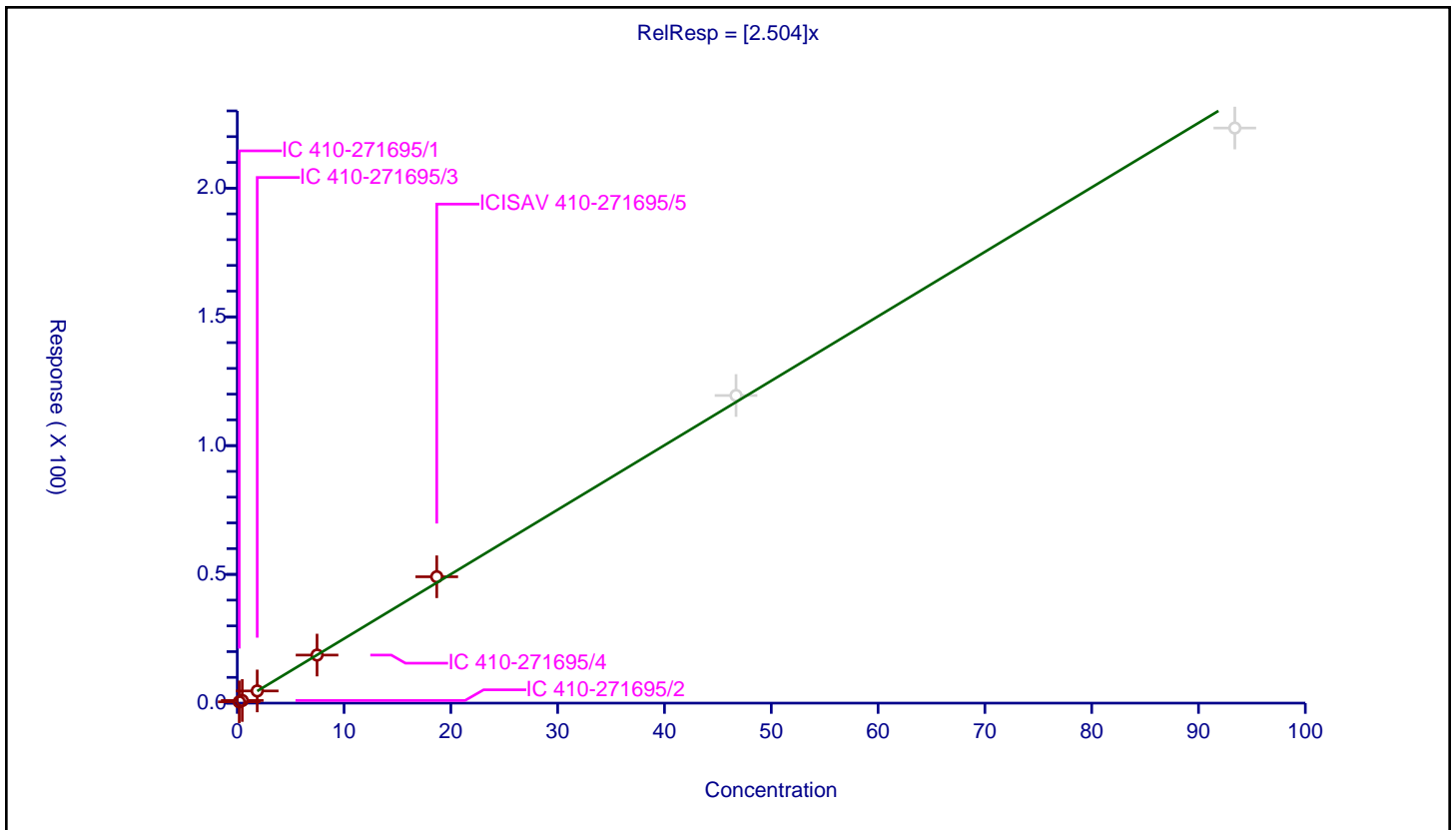
/ 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)

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

Curve Coefficients	
Intercept:	0
Slope:	2.504

Error Coefficients	
Standard Error:	495000
Relative Standard Error:	7.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.1868	0.50067	9.34	182054.0	2.680249	Y
2	IC 410-271695/2	0.467	1.016868	9.34	221158.0	2.177448	Y
3	IC 410-271695/3	1.868	4.736247	9.34	178912.0	2.535464	Y
4	IC 410-271695/4	7.472	18.665875	9.34	171924.0	2.49811	Y
5	ICISAV 410-271695/5	18.68	49.073195	9.34	175757.0	2.627045	Y
6	IC 410-271695/6	46.7	119.470311	9.34	146168.0	2.558251	N
7	IC 410-271695/7	93.4	223.337784	9.34	146311.0	2.391197	N



Calibration

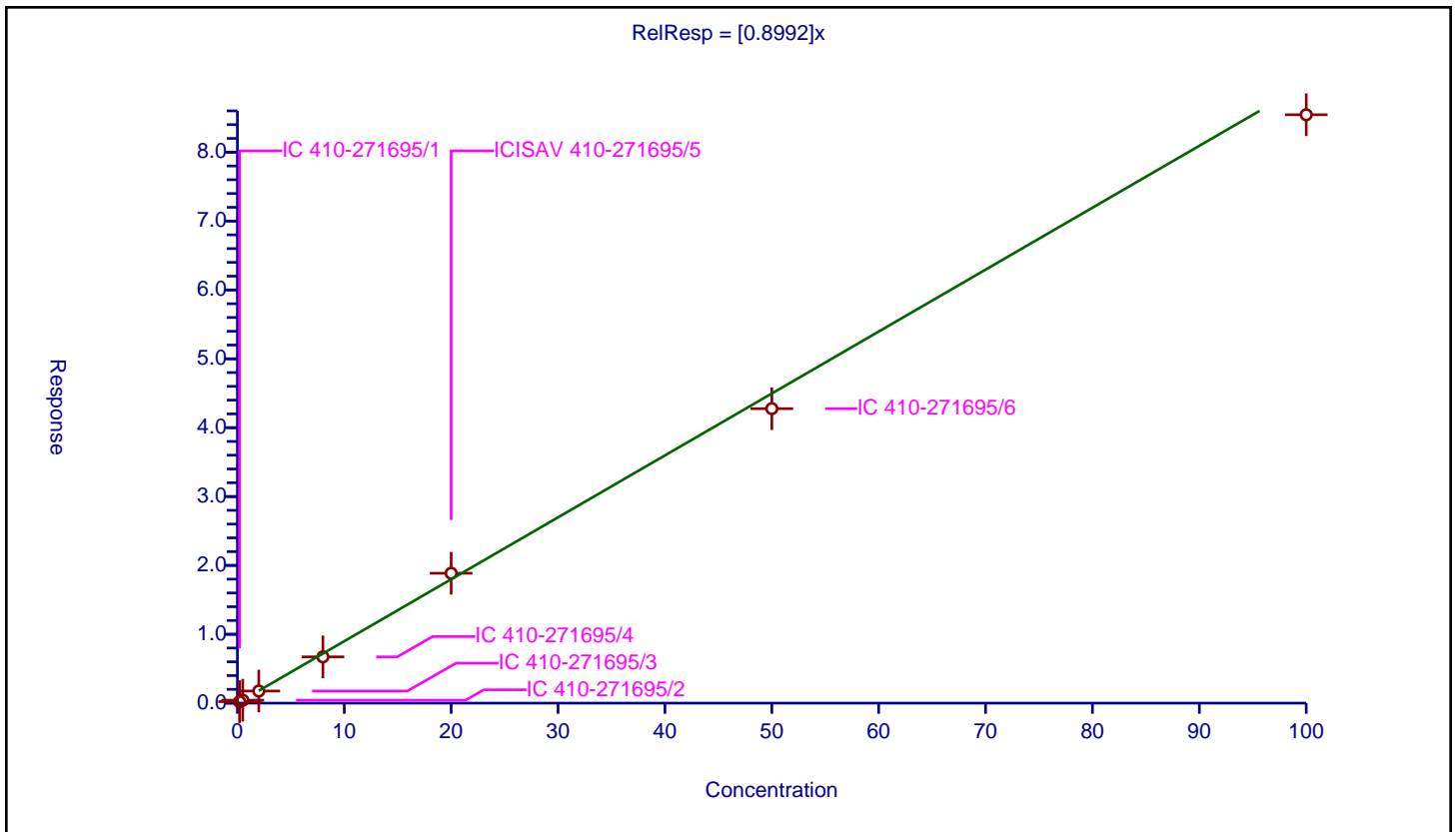
/ Perfluorohexanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.8992

Error Coefficients	
Standard Error:	8520000
Relative Standard Error:	9.3
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.214246	10.0	2591464.0	1.071228	Y
2	IC 410-271695/2	0.5	0.425729	10.0	2871946.0	0.851458	Y
3	IC 410-271695/3	2.0	1.758399	10.0	2637263.0	0.879199	Y
4	IC 410-271695/4	8.0	6.720932	10.0	2624615.0	0.840117	Y
5	ICISAV 410-271695/5	20.0	18.860179	10.0	2562446.0	0.943009	Y
6	IC 410-271695/6	50.0	42.760517	10.0	2294034.0	0.85521	Y
7	IC 410-271695/7	100.0	85.43785	10.0	2068722.0	0.854379	Y



Calibration

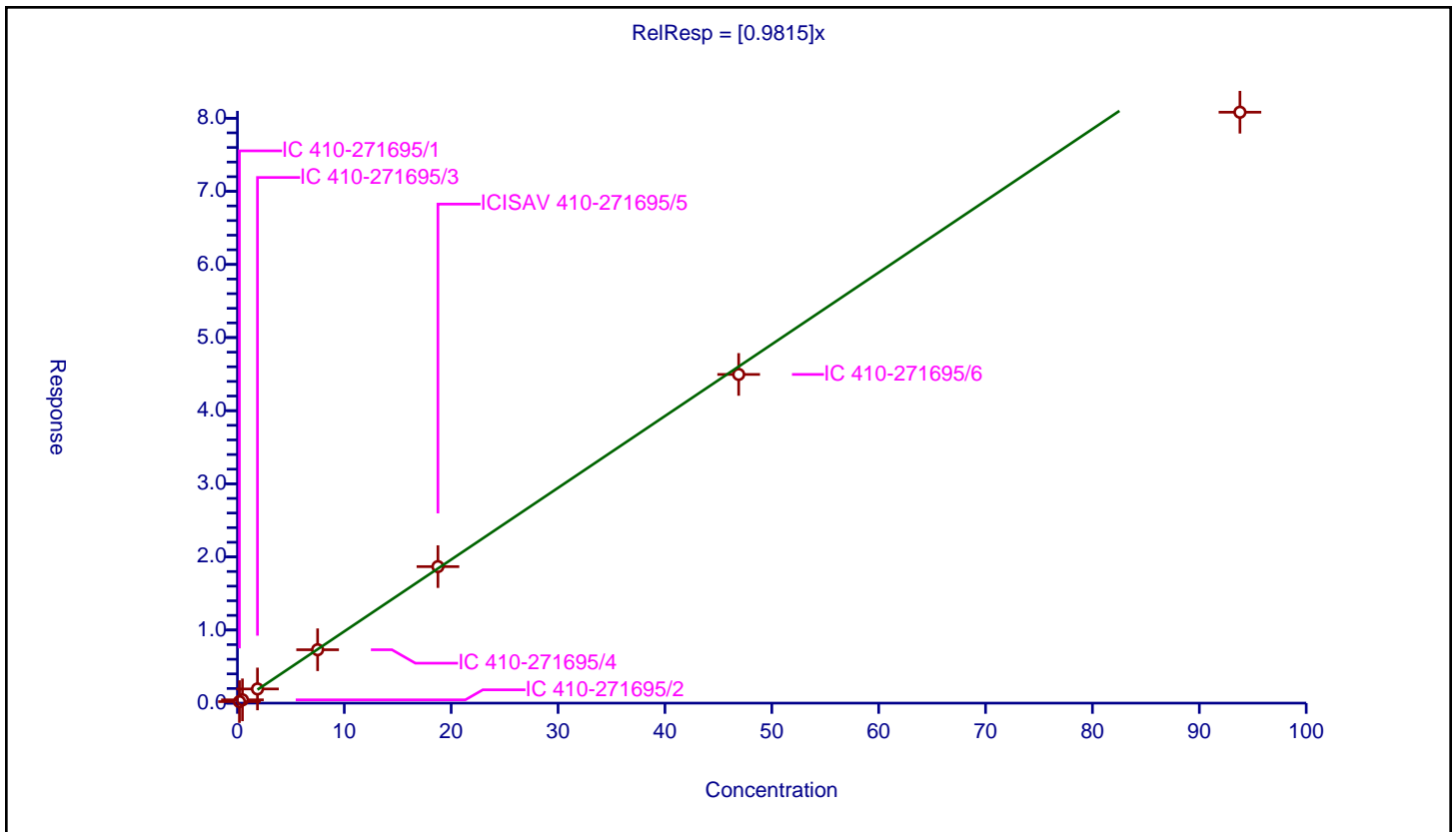
/ Perfluoropentanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.9815

Error Coefficients	
Standard Error:	11700000
Relative Standard Error:	7.2
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.1876	0.204203	9.3	3071277.0	1.088502	Y
2	IC 410-271695/2	0.469	0.450064	9.3	3472908.0	0.959626	Y
3	IC 410-271695/3	1.876	1.939468	9.3	3088859.0	1.033832	Y
4	IC 410-271695/4	7.504	7.303365	9.3	3169886.0	0.973263	Y
5	ICISAV 410-271695/5	18.76	18.670535	9.3	3281341.0	0.995231	Y
6	IC 410-271695/6	46.9	44.954191	9.3	2918931.0	0.958512	Y
7	IC 410-271695/7	93.8	80.816196	9.3	2740387.0	0.86158	Y



Calibration

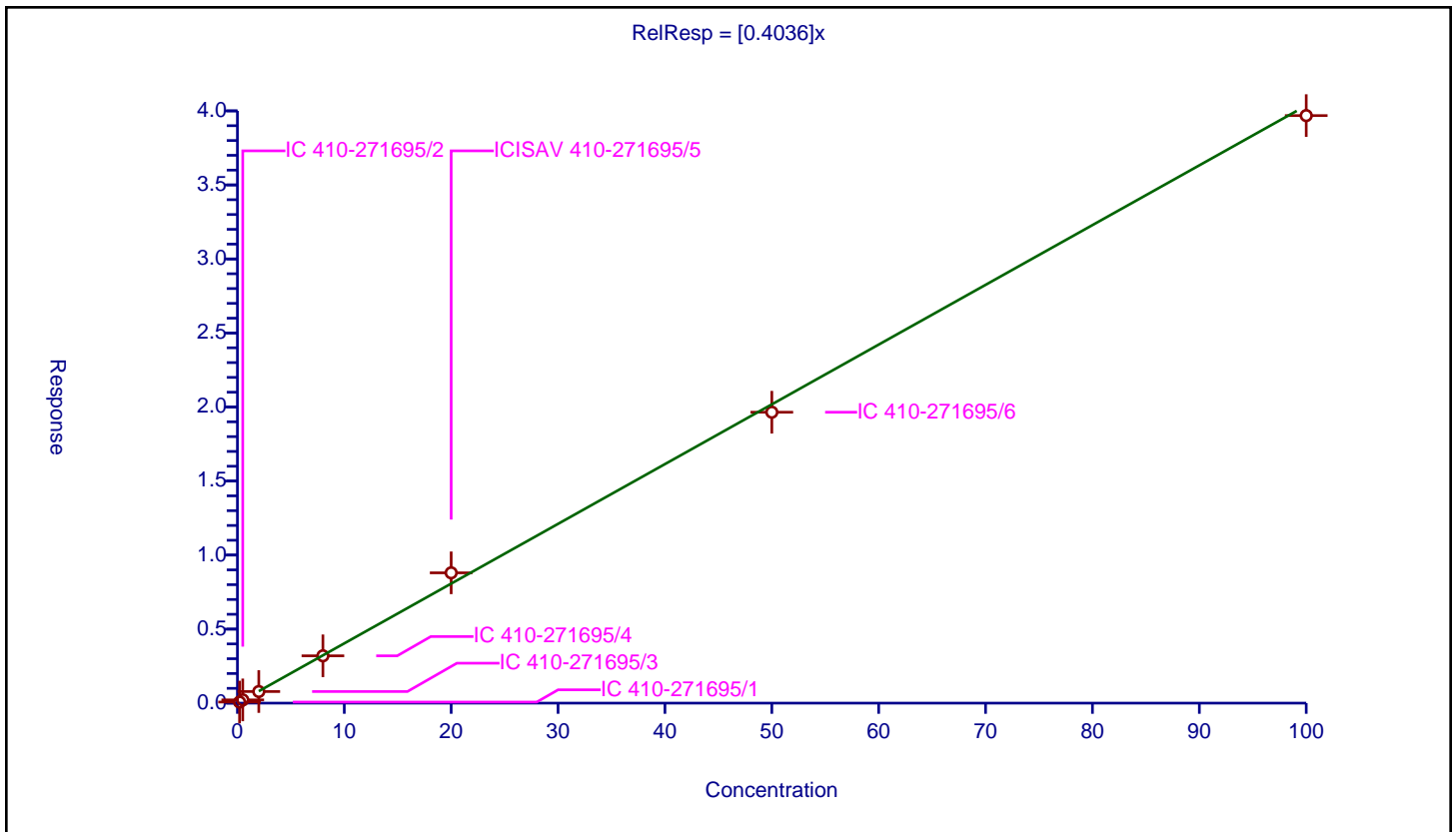
/ PFO3OA

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

Curve Coefficients	
Intercept:	0
Slope:	0.4036

Error Coefficients	
Standard Error:	3430000
Relative Standard Error:	6.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.073605	10.0	2114930.0	0.368026	Y
2	IC 410-271695/2	0.5	0.218007	10.0	2279972.0	0.436014	Y
3	IC 410-271695/3	2.0	0.783239	10.0	2031933.0	0.39162	Y
4	IC 410-271695/4	8.0	3.196369	10.0	2198116.0	0.399546	Y
5	ICISAV 410-271695/5	20.0	8.80143	10.0	2100536.0	0.440071	Y
6	IC 410-271695/6	50.0	19.648722	10.0	1951189.0	0.392974	Y
7	IC 410-271695/7	100.0	39.682165	10.0	1817766.0	0.396822	Y



Calibration

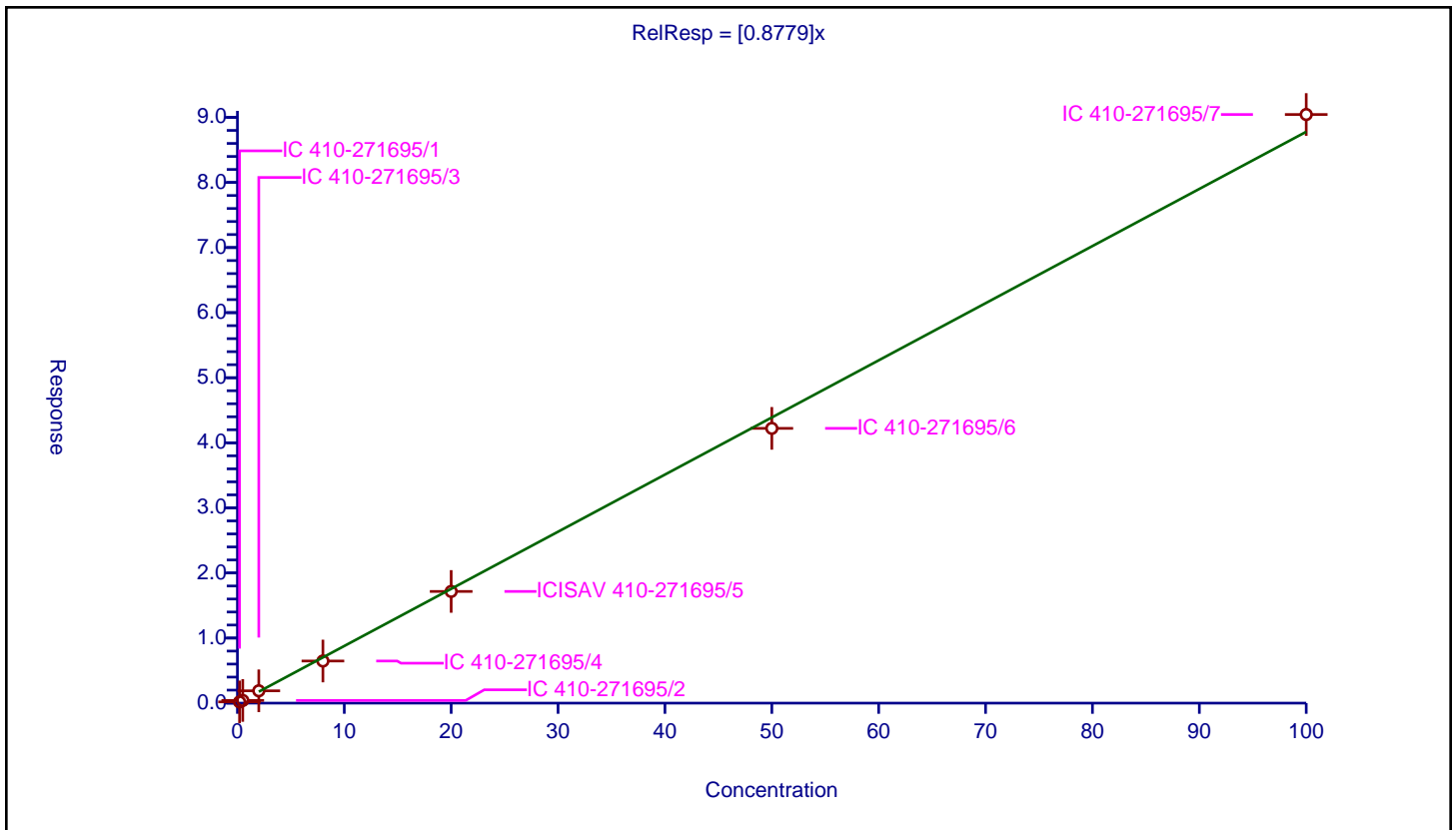
/ Perfluoro(2-propoxypropanoic) acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.8779

Error Coefficients	
Standard Error:	2820000
Relative Standard Error:	6.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.191851	10.0	776434.0	0.959257	Y
2	IC 410-271695/2	0.5	0.411338	10.0	883968.0	0.822677	Y
3	IC 410-271695/3	2.0	1.894241	10.0	721719.0	0.947121	Y
4	IC 410-271695/4	8.0	6.474005	10.0	790608.0	0.809251	Y
5	ICISAV 410-271695/5	20.0	17.159578	10.0	838974.0	0.857979	Y
6	IC 410-271695/6	50.0	42.219255	10.0	702006.0	0.844385	Y
7	IC 410-271695/7	100.0	90.441516	10.0	668922.0	0.904415	Y



Calibration

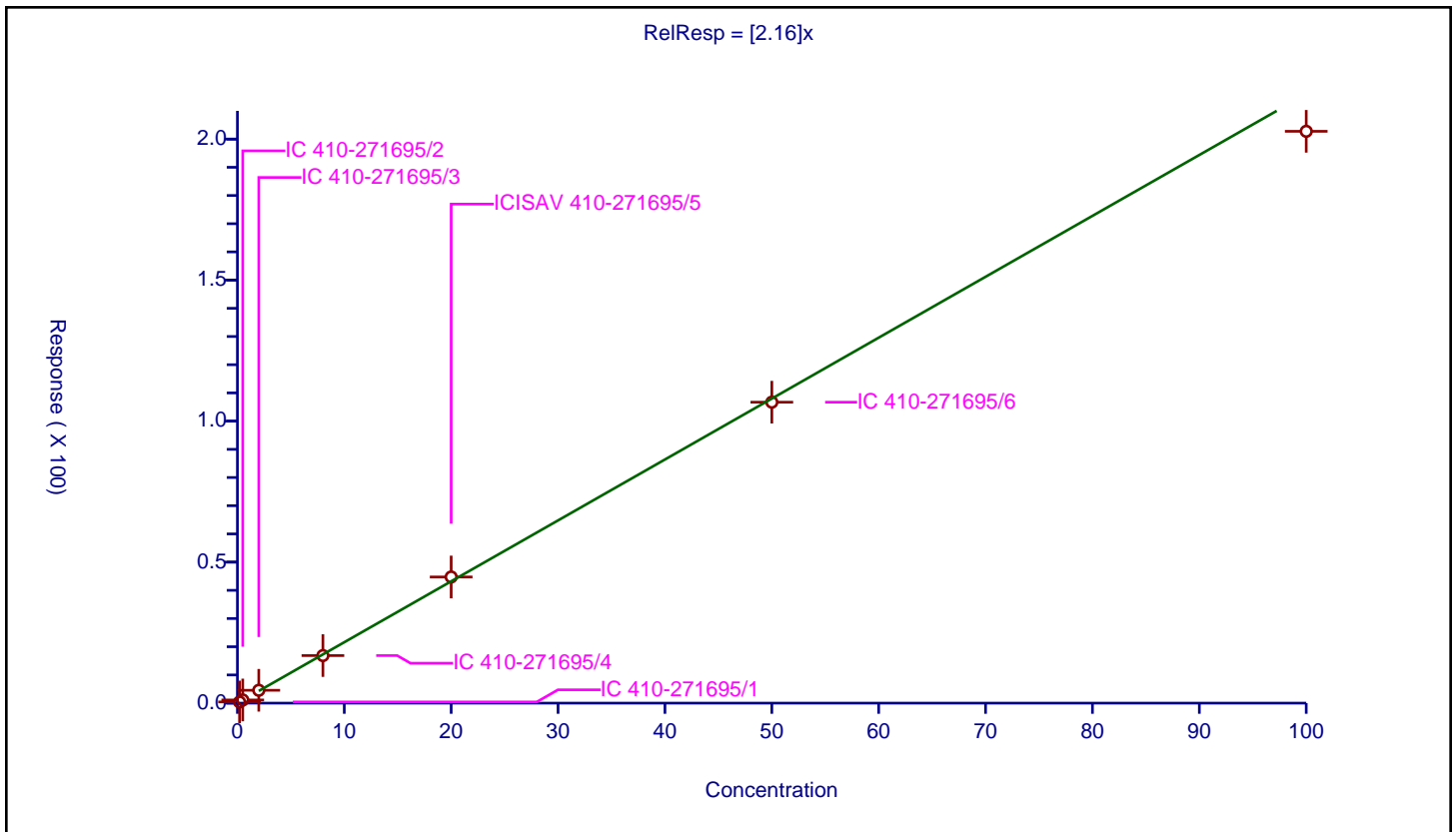
/ Hydro-EVE Acid

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

Curve Coefficients	
Intercept:	0
Slope:	2.16

Error Coefficients	
Standard Error:	17800000
Relative Standard Error:	4.3
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.419489	10.0	2114930.0	2.097445	Y
2	IC 410-271695/2	0.5	1.117404	10.0	2279972.0	2.234808	Y
3	IC 410-271695/3	2.0	4.559092	10.0	2031933.0	2.279546	Y
4	IC 410-271695/4	8.0	16.858614	10.0	2198116.0	2.107327	Y
5	ICISAV 410-271695/5	20.0	44.734425	10.0	2100536.0	2.236721	Y
6	IC 410-271695/6	50.0	106.71589	10.0	1951189.0	2.134318	Y
7	IC 410-271695/7	100.0	202.7558	10.0	1817766.0	2.027558	Y



Calibration

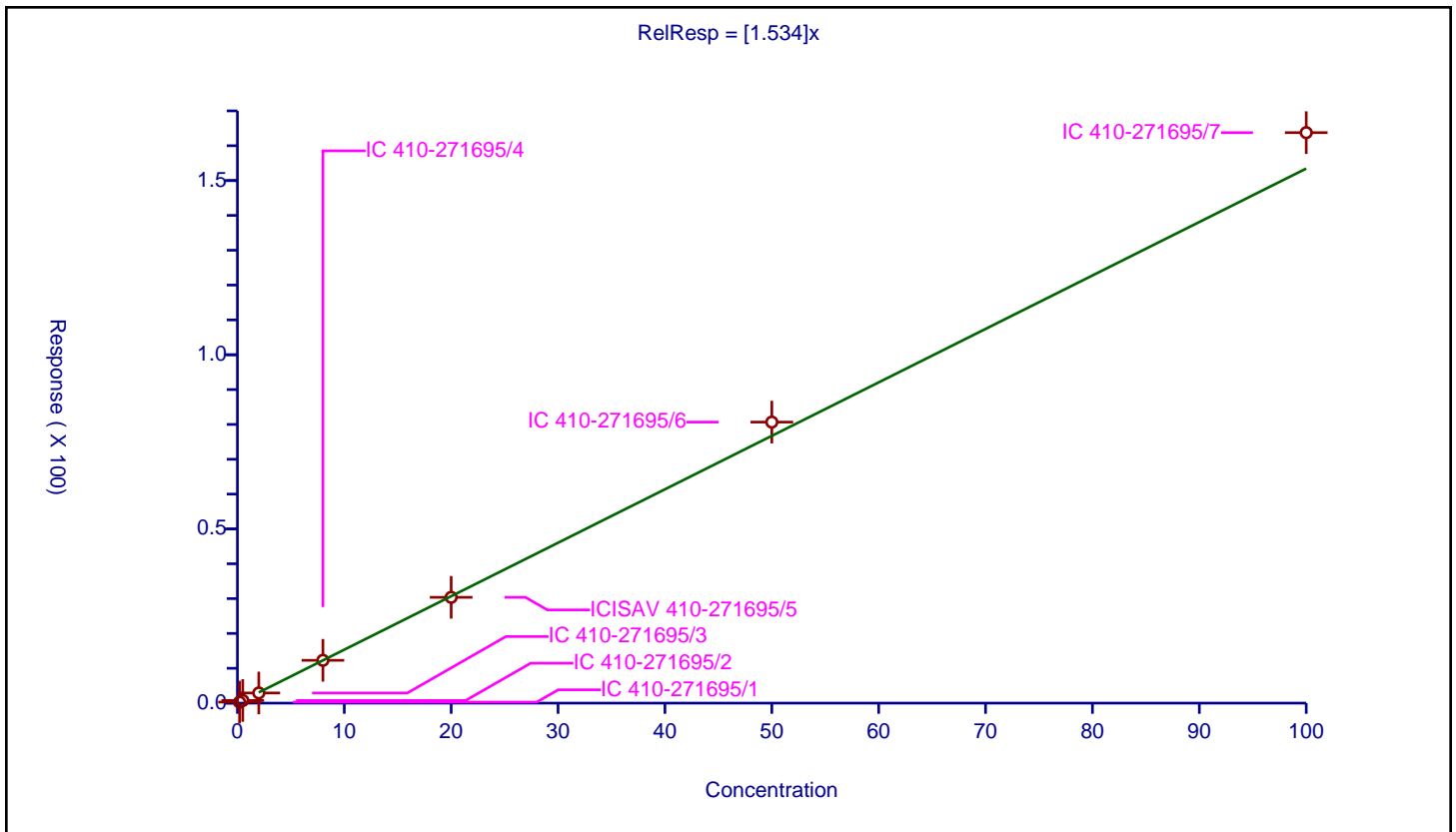
/ Hydro-PS Acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.534

Error Coefficients	
Standard Error:	22700000
Relative Standard Error:	4.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.291953	9.3	3071277.0	1.459765	Y
2	IC 410-271695/2	0.5	0.75896	9.3	3472908.0	1.517919	Y
3	IC 410-271695/3	2.0	2.91579	9.3	3088859.0	1.457895	Y
4	IC 410-271695/4	8.0	12.289119	9.3	3169886.0	1.53614	Y
5	ICISAV 410-271695/5	20.0	30.370128	9.3	3281341.0	1.518506	Y
6	IC 410-271695/6	50.0	80.667392	9.3	2918931.0	1.613348	Y
7	IC 410-271695/7	100.0	163.751606	9.3	2740387.0	1.637516	Y



Calibration

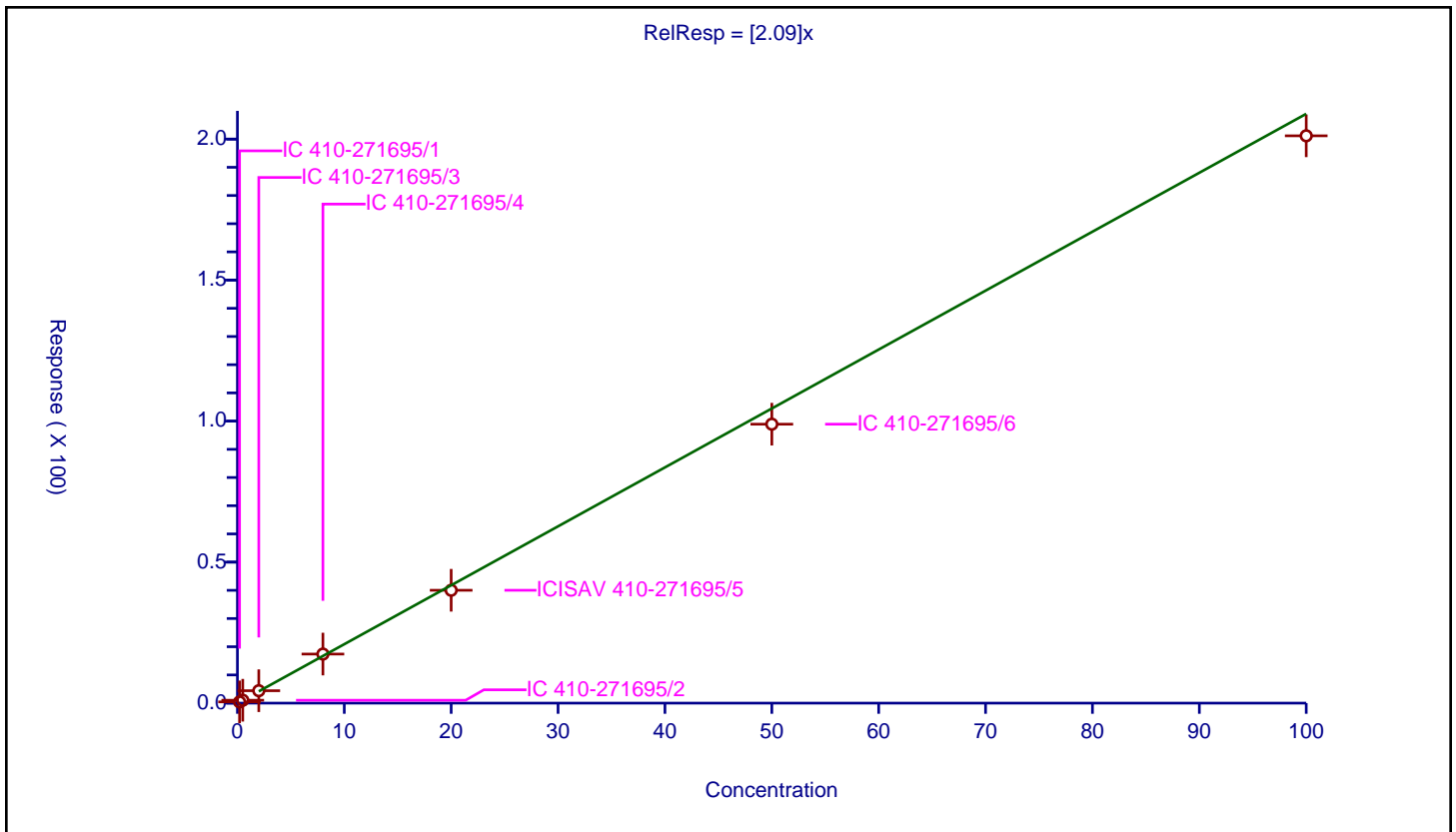
/ R-PSDCA

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

Curve Coefficients	
Intercept:	0
Slope:	2.09

Error Coefficients	
Standard Error:	28000000
Relative Standard Error:	4.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.441315	9.3	3071277.0	2.206575	Y
2	IC 410-271695/2	0.5	1.026428	9.3	3472908.0	2.052856	Y
3	IC 410-271695/3	2.0	4.403719	9.3	3088859.0	2.20186	Y
4	IC 410-271695/4	8.0	17.397784	9.3	3169886.0	2.174723	Y
5	ICISAV 410-271695/5	20.0	40.016935	9.3	3281341.0	2.000847	Y
6	IC 410-271695/6	50.0	98.912725	9.3	2918931.0	1.978255	Y
7	IC 410-271695/7	100.0	201.161363	9.3	2740387.0	2.011614	Y



Calibration

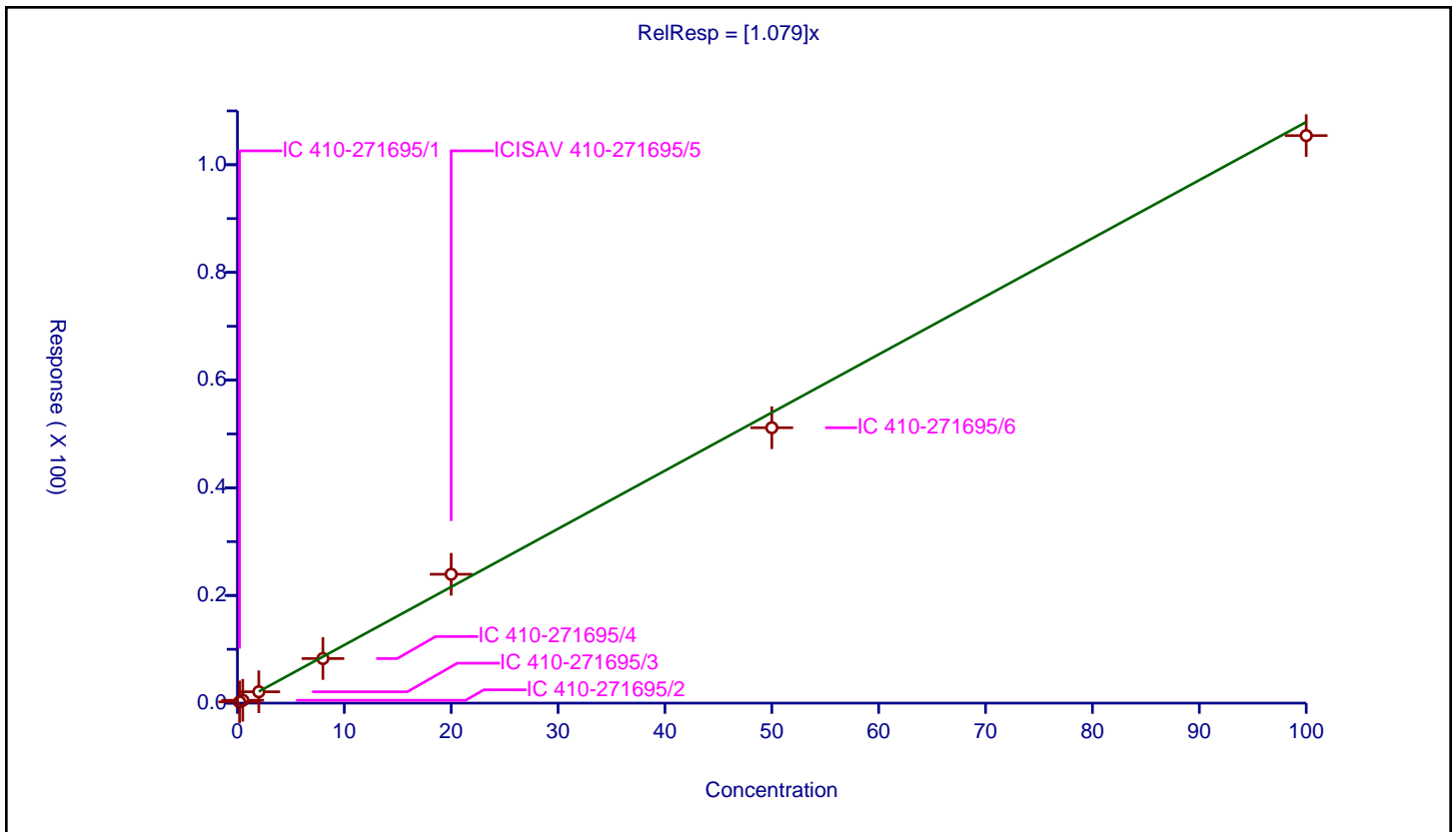
/ Perfluoroheptanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.079

Error Coefficients	
Standard Error:	8880000
Relative Standard Error:	5.7
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.225685	10.0	2733501.0	1.128425	Y
2	IC 410-271695/2	0.5	0.532019	10.0	3075756.0	1.064038	Y
3	IC 410-271695/3	2.0	2.108647	10.0	2751338.0	1.054323	Y
4	IC 410-271695/4	8.0	8.276955	10.0	2582213.0	1.034619	Y
5	ICISAV 410-271695/5	20.0	23.935305	10.0	2317104.0	1.196765	Y
6	IC 410-271695/6	50.0	51.151966	10.0	2100062.0	1.023039	Y
7	IC 410-271695/7	100.0	105.407093	10.0	1703764.0	1.054071	Y



Calibration

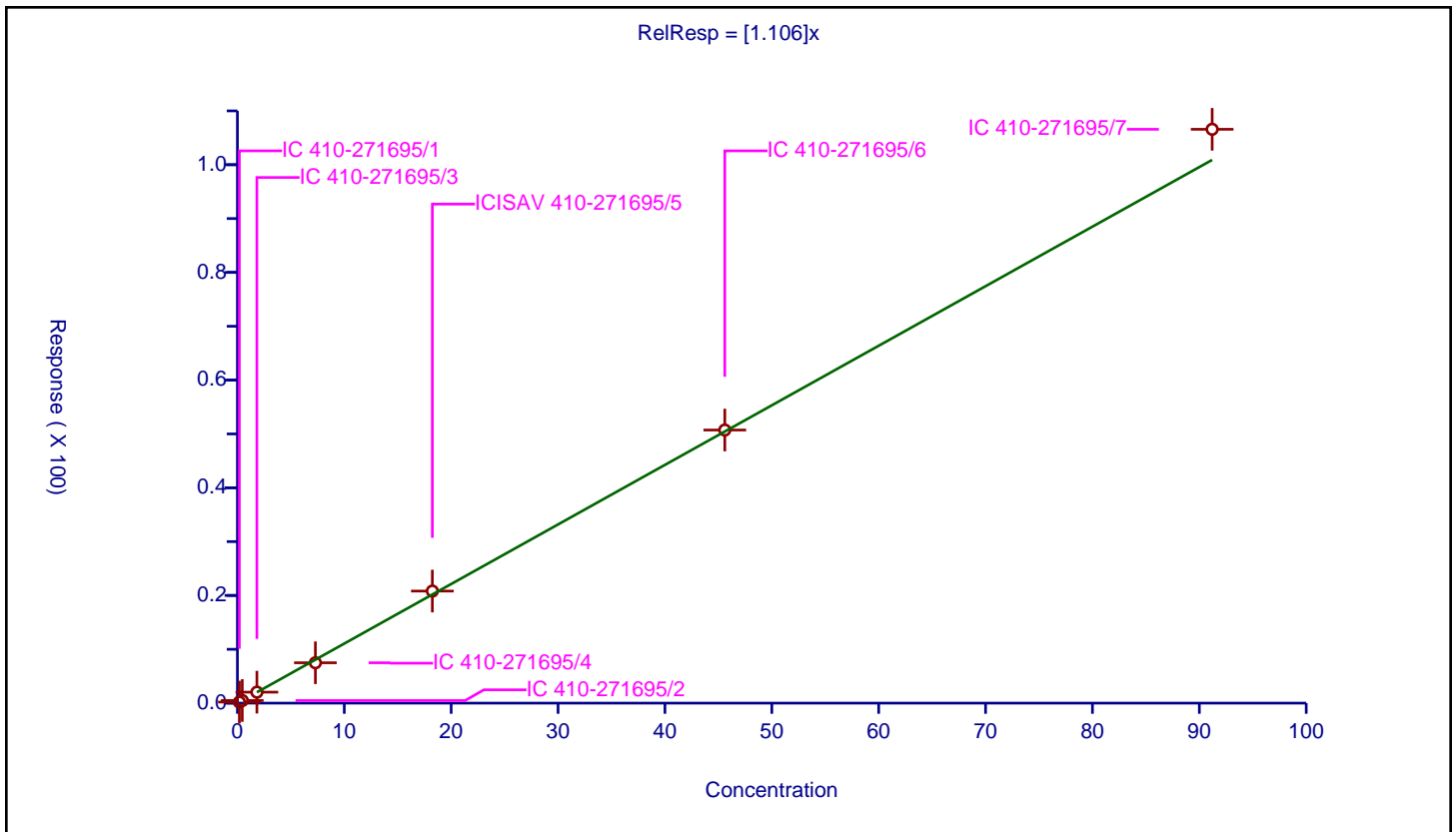
/ Perfluorohexanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.106

Error Coefficients	
Standard Error:	12700000
Relative Standard Error:	4.2
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.1824	0.202007	9.46	3608674.0	1.107496	Y
2	IC 410-271695/2	0.456	0.486856	9.46	3543460.0	1.067666	Y
3	IC 410-271695/3	1.824	2.041787	9.46	3435839.0	1.119401	Y
4	IC 410-271695/4	7.296	7.494824	9.46	3321886.0	1.027251	Y
5	ICISAV 410-271695/5	18.24	20.813166	9.46	3164775.0	1.141073	Y
6	IC 410-271695/6	45.6	50.723162	9.46	2707068.0	1.11235	Y
7	IC 410-271695/7	91.2	106.582727	9.46	2339262.0	1.16867	Y



Calibration

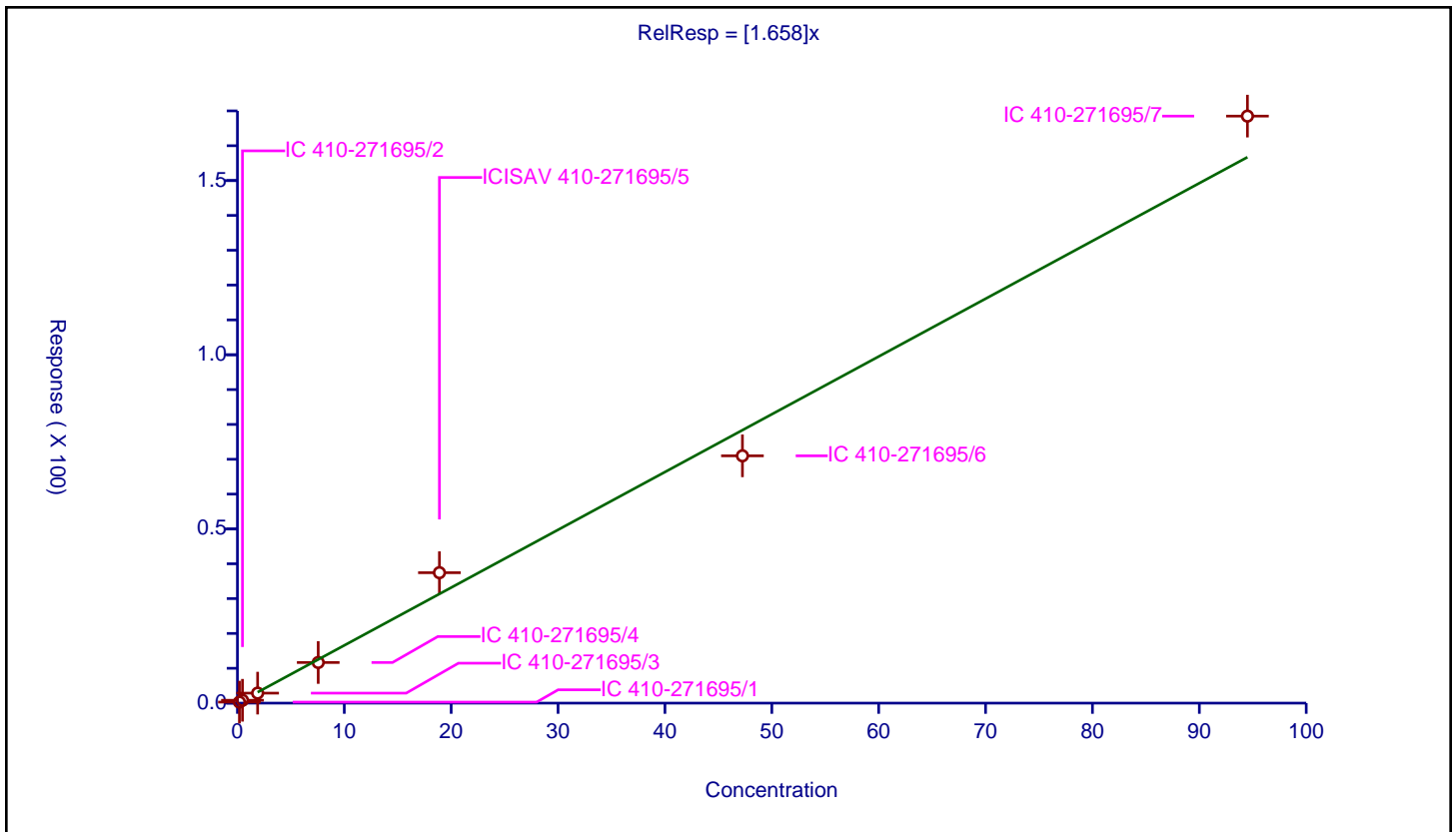
/ DONA

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

Curve Coefficients	
Intercept:	0
Slope:	1.658

Error Coefficients	
Standard Error:	13700000
Relative Standard Error:	10.9
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.189	0.291813	10.0	2733501.0	1.543982	Y
2	IC 410-271695/2	0.4725	0.819454	10.0	3075756.0	1.734294	Y
3	IC 410-271695/3	1.89	2.874361	10.0	2751338.0	1.520826	Y
4	IC 410-271695/4	7.56	11.661559	10.0	2582213.0	1.542534	Y
5	ICISAV 410-271695/5	18.9	37.44286	10.0	2317104.0	1.981104	Y
6	IC 410-271695/6	47.25	70.986685	10.0	2100062.0	1.502364	Y
7	IC 410-271695/7	94.5	168.501007	10.0	1703764.0	1.783079	Y



Calibration

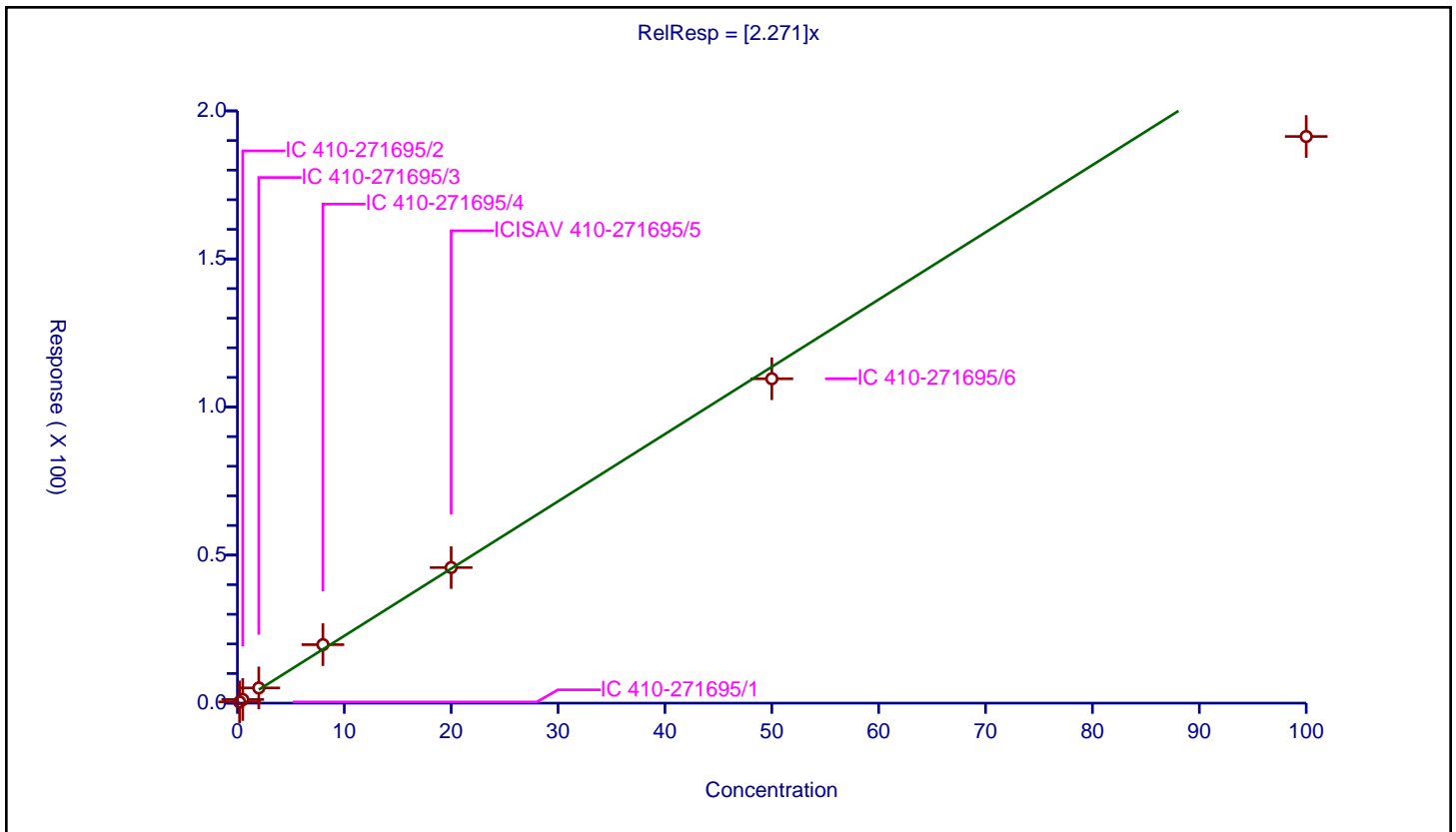
/ PFECA G

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

Curve Coefficients	
Intercept:	0
Slope:	2.271

Error Coefficients	
Standard Error:	17200000
Relative Standard Error:	10.8
Correlation Coefficient:	0.986
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.402358	10.0	2114930.0	2.011792	Y
2	IC 410-271695/2	0.5	1.229467	10.0	2279972.0	2.458934	Y
3	IC 410-271695/3	2.0	5.132	10.0	2031933.0	2.566	Y
4	IC 410-271695/4	8.0	19.753075	10.0	2198116.0	2.469134	Y
5	ICISAV 410-271695/5	20.0	45.782077	10.0	2100536.0	2.289104	Y
6	IC 410-271695/6	50.0	109.549039	10.0	1951189.0	2.190981	Y
7	IC 410-271695/7	100.0	191.354327	10.0	1817766.0	1.913543	Y



Calibration

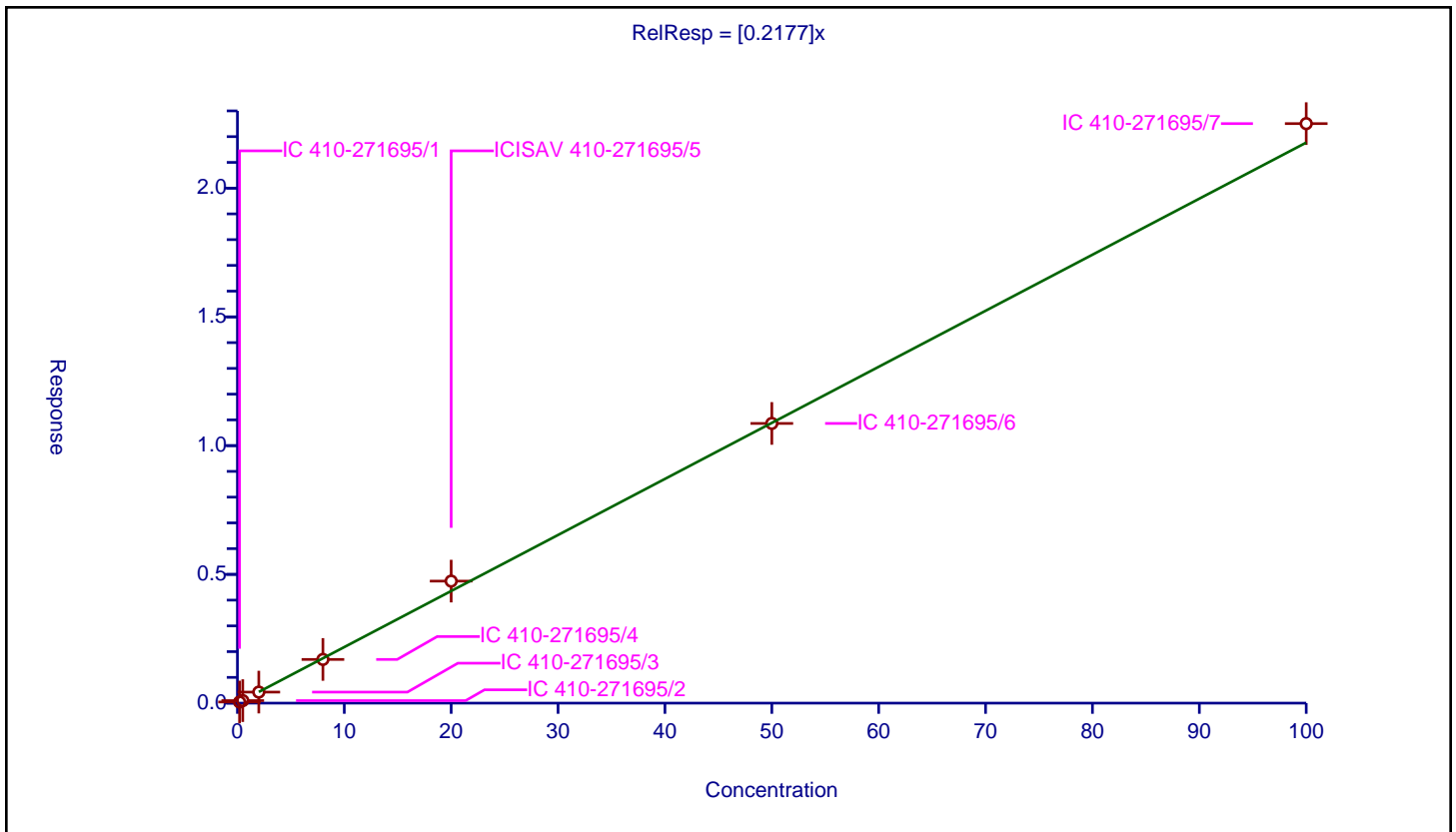
/ 5:3 FTCA

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

Curve Coefficients	
Intercept:	0
Slope:	0.2177

Error Coefficients	
Standard Error:	1890000
Relative Standard Error:	5.7
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.044357	10.0	2733501.0	0.221785	Y
2	IC 410-271695/2	0.5	0.098207	10.0	3075756.0	0.196413	Y
3	IC 410-271695/3	2.0	0.428497	10.0	2751338.0	0.214248	Y
4	IC 410-271695/4	8.0	1.696494	10.0	2582213.0	0.212062	Y
5	ICISAV 410-271695/5	20.0	4.739153	10.0	2317104.0	0.236958	Y
6	IC 410-271695/6	50.0	10.862317	10.0	2100062.0	0.217246	Y
7	IC 410-271695/7	100.0	22.506063	10.0	1703764.0	0.225061	Y



Calibration

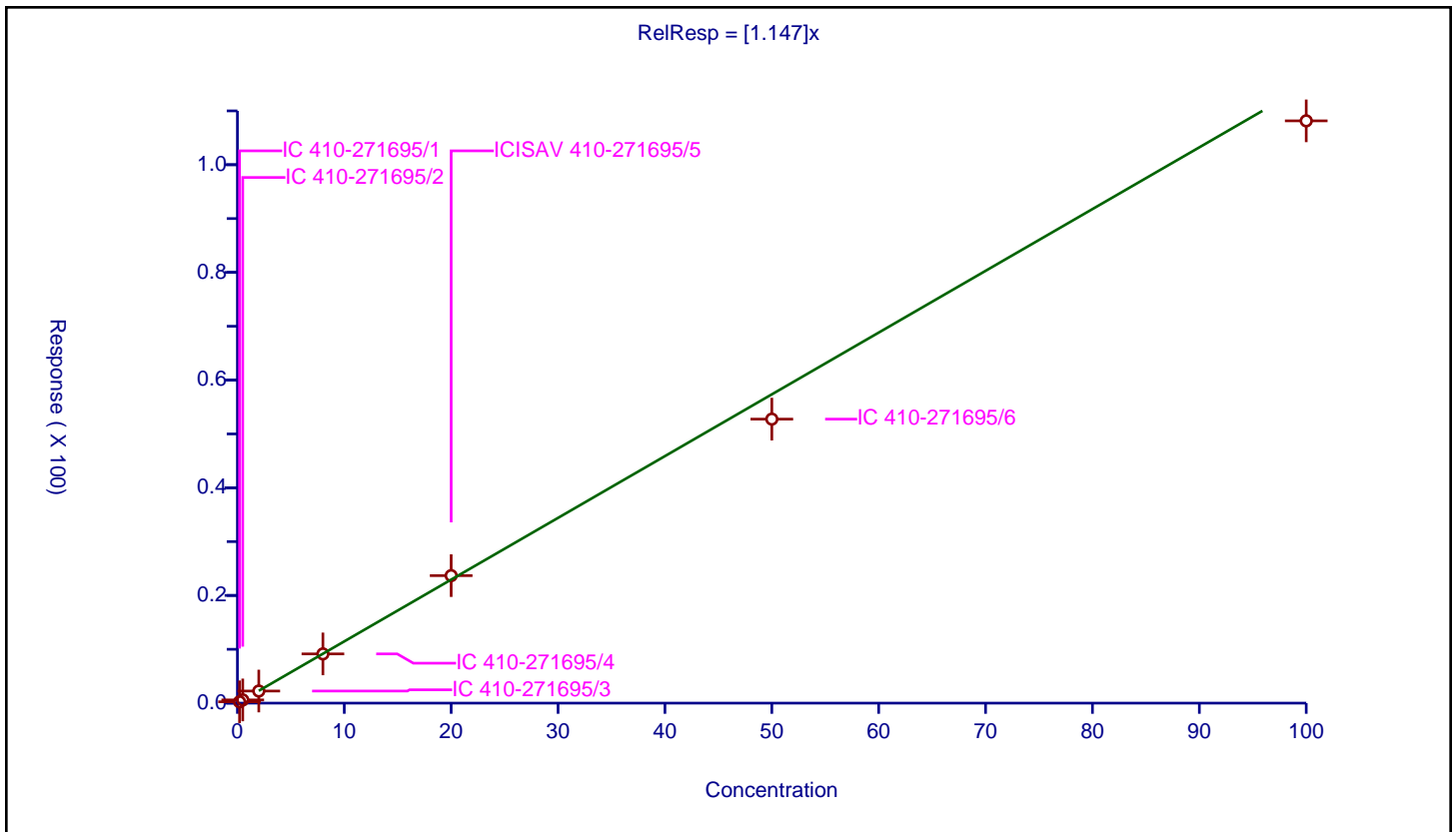
/ 6:2 FTUCA

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

Curve Coefficients	
Intercept:	0
Slope:	1.147

Error Coefficients	
Standard Error:	10100000
Relative Standard Error:	5.8
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.248965	10.0	2743918.0	1.244826	Y
2	IC 410-271695/2	0.5	0.59794	10.0	2828244.0	1.19588	Y
3	IC 410-271695/3	2.0	2.249574	10.0	2827282.0	1.124787	Y
4	IC 410-271695/4	8.0	9.142121	10.0	2760482.0	1.142765	Y
5	ICISAV 410-271695/5	20.0	23.684197	10.0	2569257.0	1.18421	Y
6	IC 410-271695/6	50.0	52.749847	10.0	2241394.0	1.054997	Y
7	IC 410-271695/7	100.0	108.148267	10.0	1925634.0	1.081483	Y



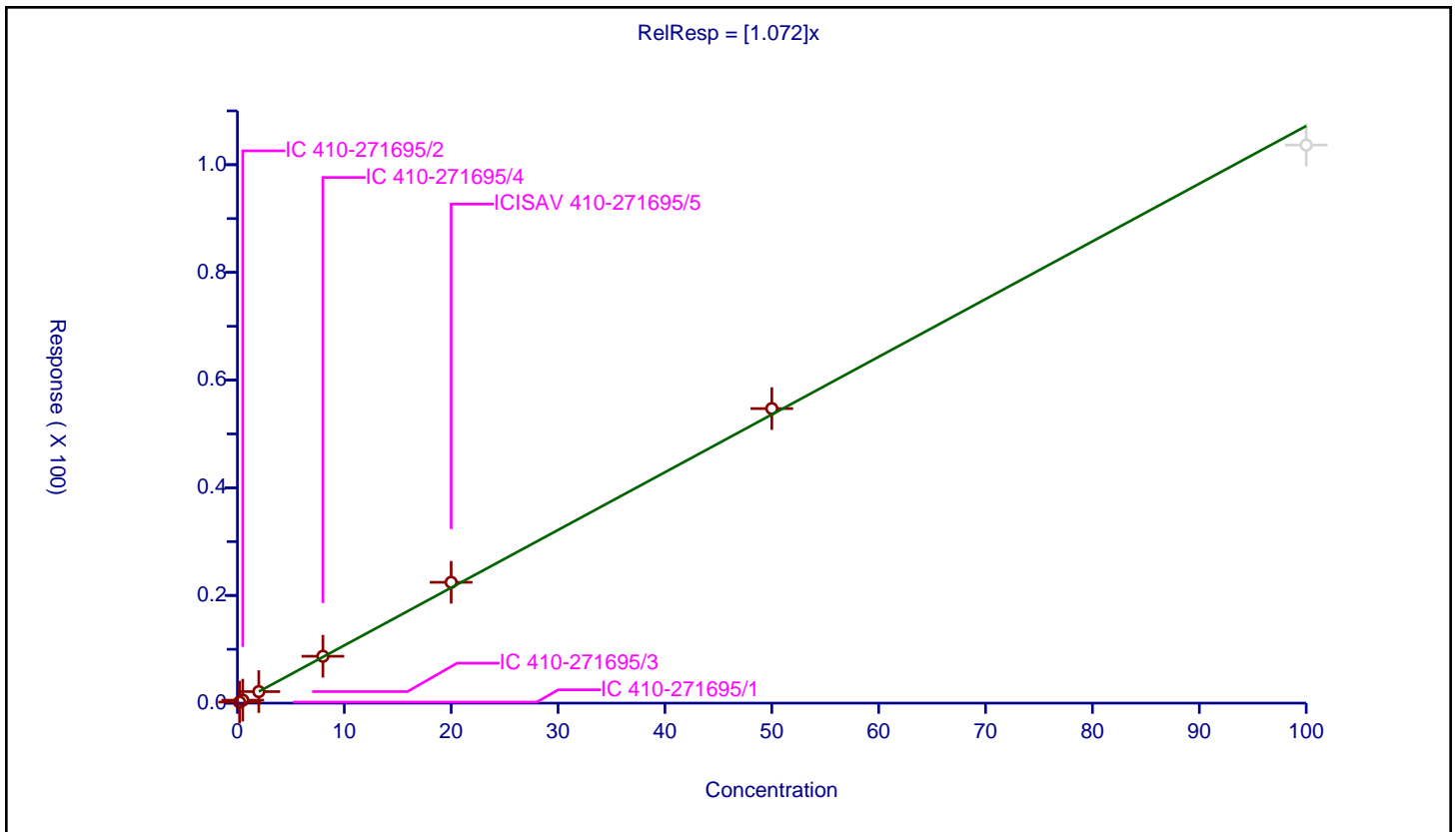
Calibration

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

Curve Coefficients	
Intercept:	0
Slope:	1.072

Error Coefficients	
Standard Error:	653000
Relative Standard Error:	5.7
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.190335	10.0	307143.0	0.951674	Y
2	IC 410-271695/2	0.5	0.552891	10.0	319593.0	1.105781	Y
3	IC 410-271695/3	2.0	2.139547	10.0	277068.0	1.069773	Y
4	IC 410-271695/4	8.0	8.707526	10.0	285909.0	1.088441	Y
5	ICISAV 410-271695/5	20.0	22.440771	10.0	263175.0	1.122039	Y
6	IC 410-271695/6	50.0	54.710701	10.0	239752.0	1.094214	Y
7	IC 410-271695/7	100.0	103.660398	10.0	226112.0	1.036604	N



Calibration

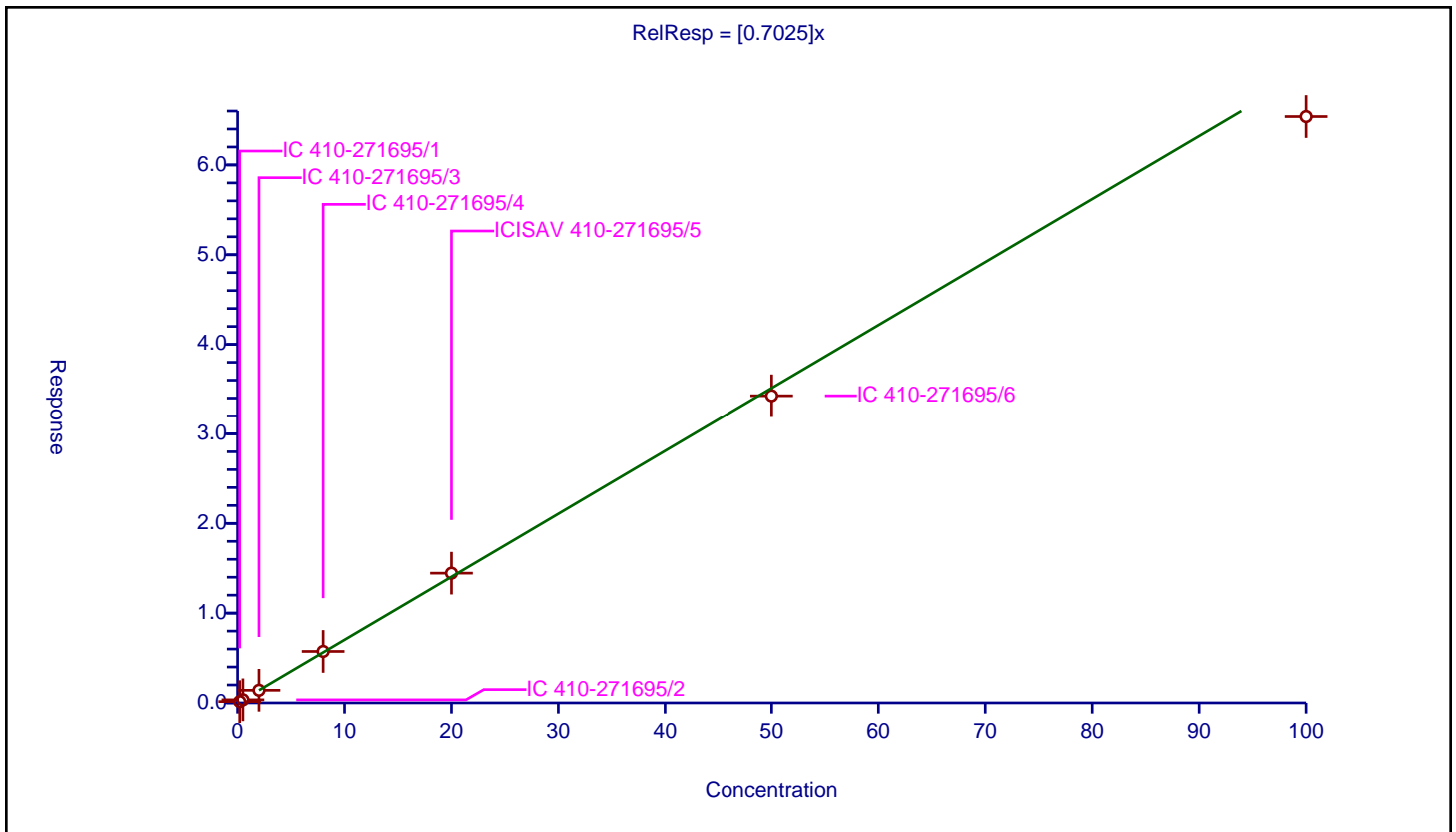
/ PFO4DA

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

Curve Coefficients	
Intercept:	0
Slope:	0.7025

Error Coefficients	
Standard Error:	5730000
Relative Standard Error:	4.0
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.14818	10.0	2114930.0	0.740899	Y
2	IC 410-271695/2	0.5	0.347131	10.0	2279972.0	0.694263	Y
3	IC 410-271695/3	2.0	1.407832	10.0	2031933.0	0.703916	Y
4	IC 410-271695/4	8.0	5.732204	10.0	2198116.0	0.716526	Y
5	ICISAV 410-271695/5	20.0	14.453982	10.0	2100536.0	0.722699	Y
6	IC 410-271695/6	50.0	34.26604	10.0	1951189.0	0.685321	Y
7	IC 410-271695/7	100.0	65.388845	10.0	1817766.0	0.653888	Y



Calibration

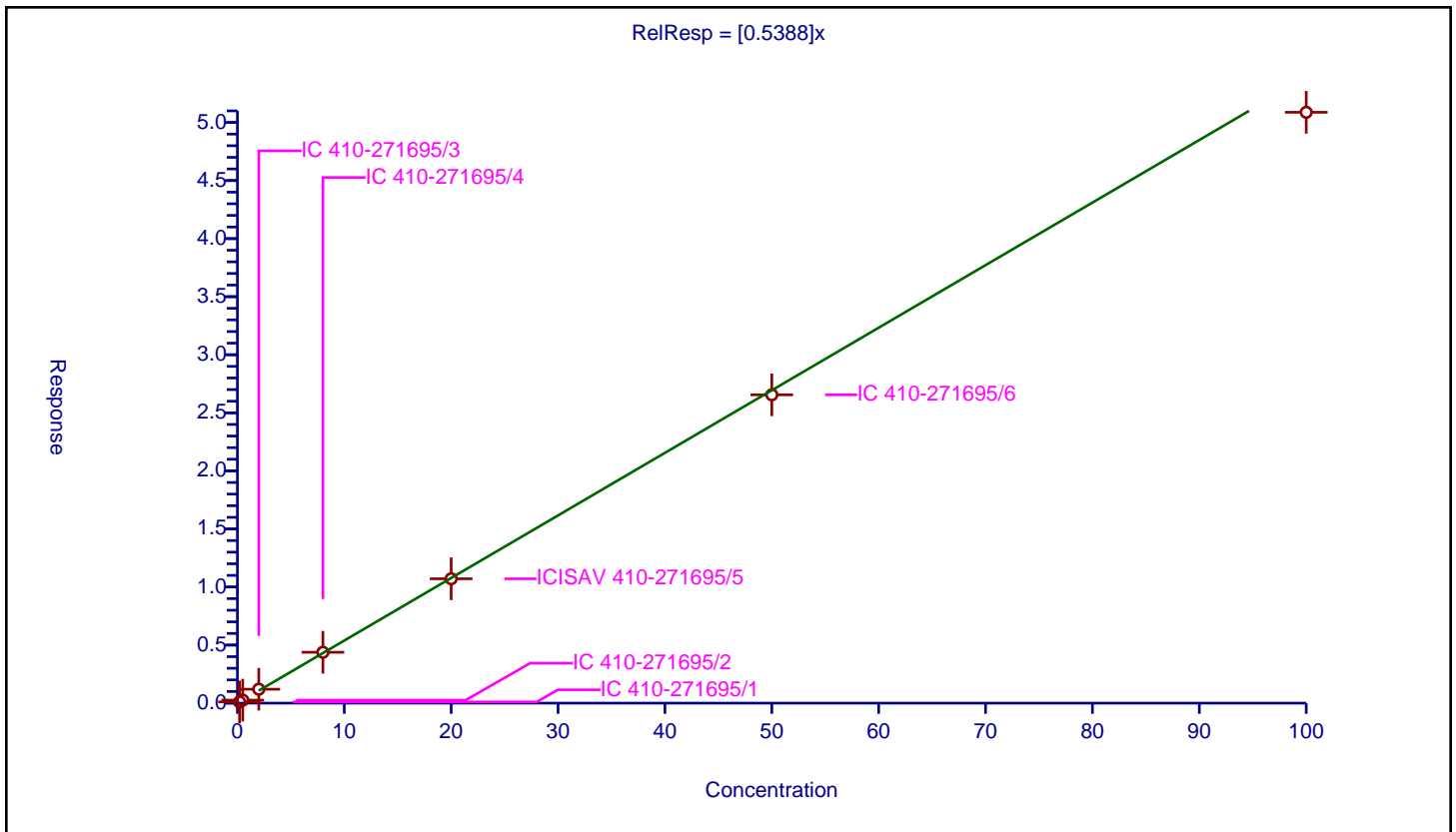
/ PS Acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.5388

Error Coefficients	
Standard Error:	7200000
Relative Standard Error:	5.5
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.1068	9.3	3071277.0	0.533998	Y
2	IC 410-271695/2	0.5	0.257625	9.3	3472908.0	0.515249	Y
3	IC 410-271695/3	2.0	1.199116	9.3	3088859.0	0.599558	Y
4	IC 410-271695/4	8.0	4.380375	9.3	3169886.0	0.547547	Y
5	ICISAV 410-271695/5	20.0	10.709786	9.3	3281341.0	0.535489	Y
6	IC 410-271695/6	50.0	26.549923	9.3	2918931.0	0.530998	Y
7	IC 410-271695/7	100.0	50.878192	9.3	2740387.0	0.508782	Y



Calibration

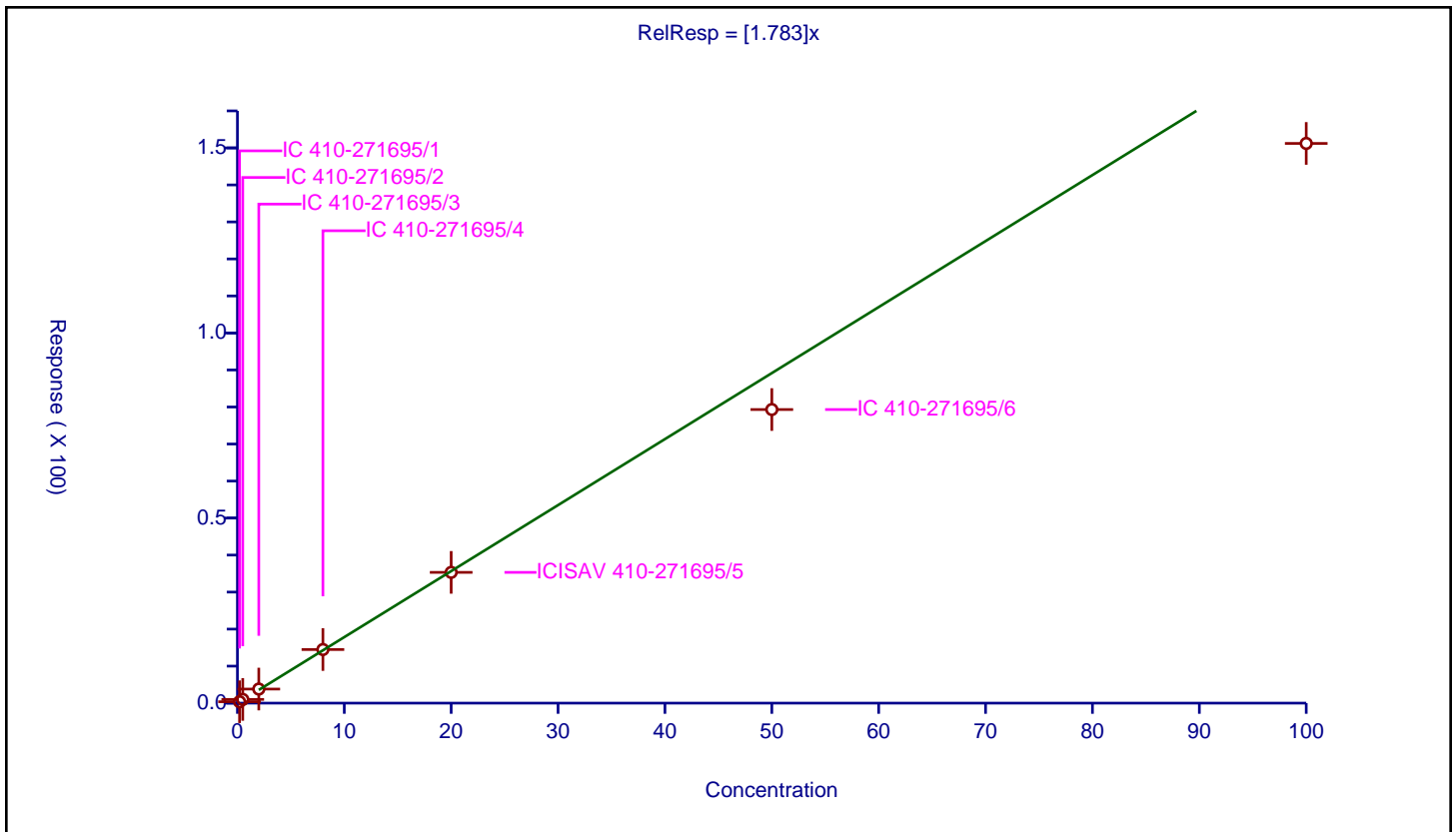
/ EVE Acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.783

Error Coefficients	
Standard Error:	13300000
Relative Standard Error:	10.0
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.379601	10.0	2114930.0	1.898006	Y
2	IC 410-271695/2	0.5	1.004025	10.0	2279972.0	2.008051	Y
3	IC 410-271695/3	2.0	3.803747	10.0	2031933.0	1.901874	Y
4	IC 410-271695/4	8.0	14.478813	10.0	2198116.0	1.809852	Y
5	ICISAV 410-271695/5	20.0	35.325512	10.0	2100536.0	1.766276	Y
6	IC 410-271695/6	50.0	79.316996	10.0	1951189.0	1.58634	Y
7	IC 410-271695/7	100.0	151.207713	10.0	1817766.0	1.512077	Y



Calibration

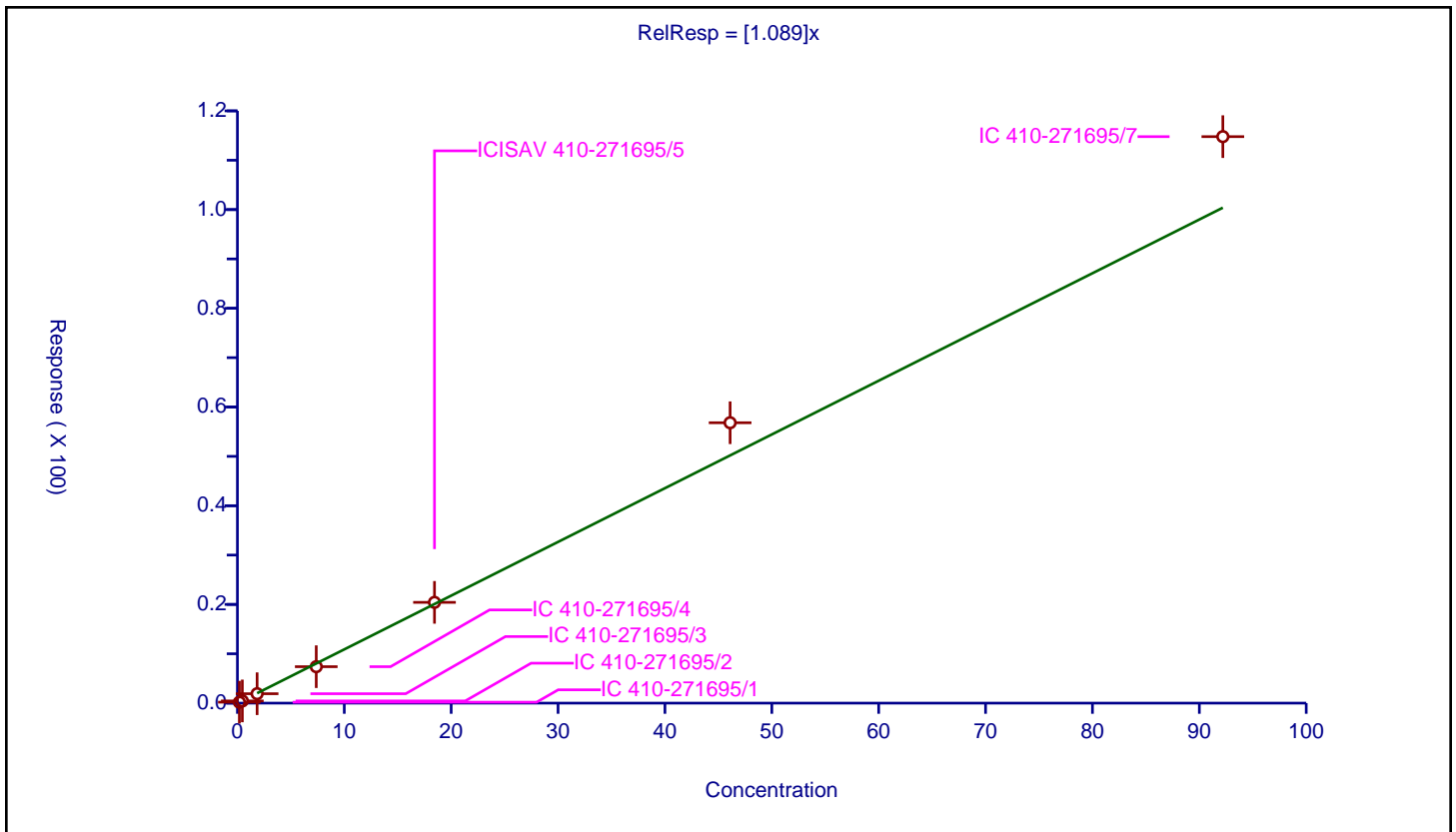
/ PFECHS

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

Curve Coefficients	
Intercept:	0
Slope:	1.089

Error Coefficients	
Standard Error:	13700000
Relative Standard Error:	10.2
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.1844	0.190226	9.46	3608674.0	1.031596	Y
2	IC 410-271695/2	0.461	0.446781	9.46	3543460.0	0.969156	Y
3	IC 410-271695/3	1.844	1.907628	9.46	3435839.0	1.034506	Y
4	IC 410-271695/4	7.376	7.387121	9.46	3321886.0	1.001508	Y
5	ICISAV 410-271695/5	18.44	20.415489	9.46	3164775.0	1.107131	Y
6	IC 410-271695/6	46.1	56.814057	9.46	2707068.0	1.232409	Y
7	IC 410-271695/7	92.2	114.782188	9.46	2339262.0	1.244926	Y



Calibration

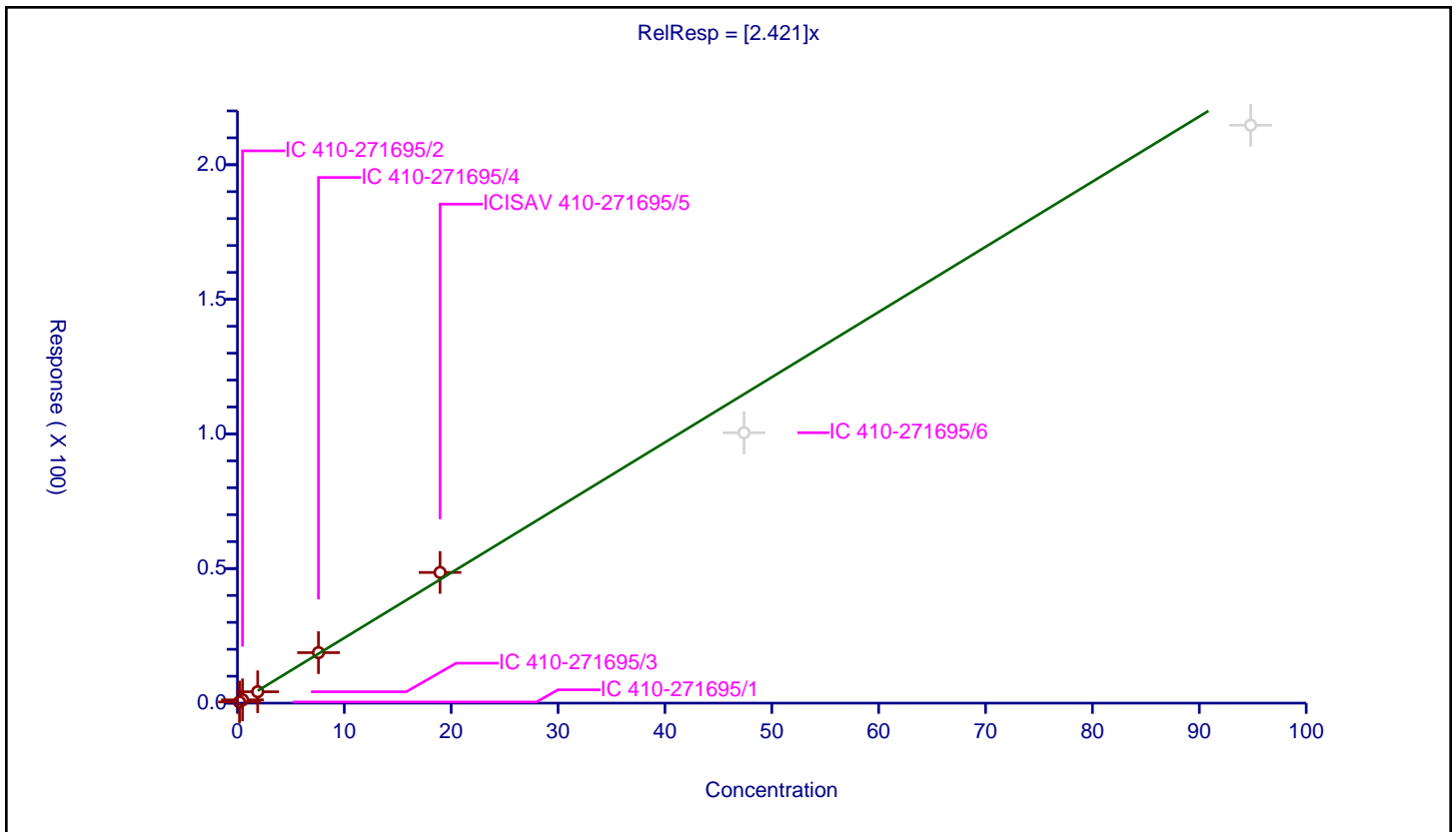
/ 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)

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

Curve Coefficients	
Intercept:	0
Slope:	2.421

Error Coefficients	
Standard Error:	305000
Relative Standard Error:	6.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.1896	0.430543	9.5	135458.0	2.270797	Y
2	IC 410-271695/2	0.474	1.220306	9.5	148482.0	2.574486	Y
3	IC 410-271695/3	1.896	4.225897	9.5	130391.0	2.228849	Y
4	IC 410-271695/4	7.584	18.753617	9.5	119221.0	2.472787	Y
5	ICISAV 410-271695/5	18.96	48.541219	9.5	109706.0	2.560191	Y
6	IC 410-271695/6	47.4	100.454352	9.5	111603.0	2.11929	N
7	IC 410-271695/7	94.8	214.685001	9.5	90575.0	2.26461	N



Calibration

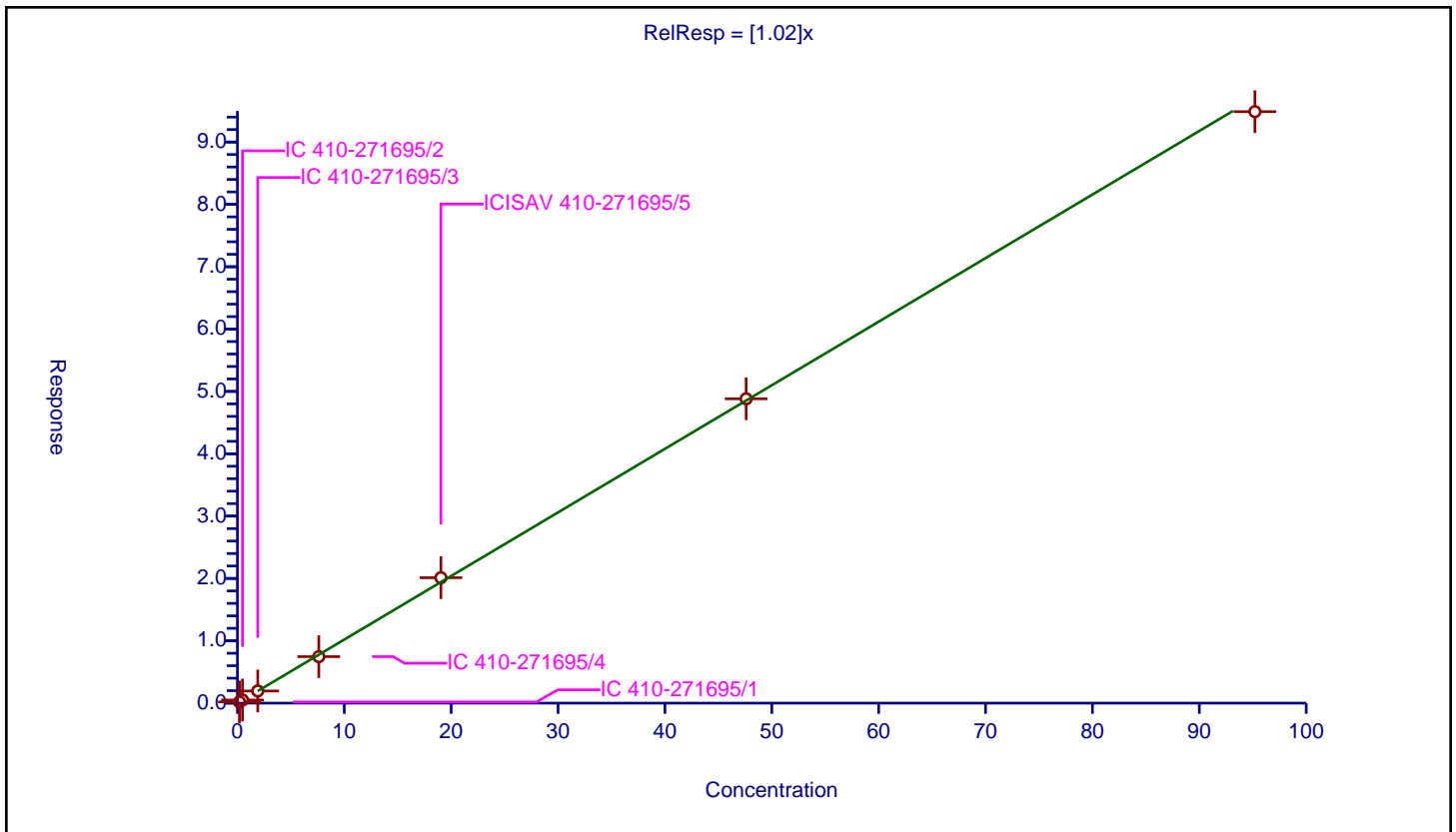
/ Perfluoroheptanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.02

Error Coefficients	
Standard Error:	11500000
Relative Standard Error:	2.6
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.1904	0.192365	9.46	3608674.0	1.010323	Y
2	IC 410-271695/2	0.476	0.498119	9.46	3543460.0	1.046469	Y
3	IC 410-271695/3	1.904	1.948284	9.46	3435839.0	1.023258	Y
4	IC 410-271695/4	7.616	7.458745	9.46	3321886.0	0.979352	Y
5	ICISAV 410-271695/5	19.04	20.119278	9.46	3164775.0	1.056685	Y
6	IC 410-271695/6	47.6	48.819038	9.46	2707068.0	1.02561	Y
7	IC 410-271695/7	95.2	94.876663	9.46	2339262.0	0.996604	Y



Calibration

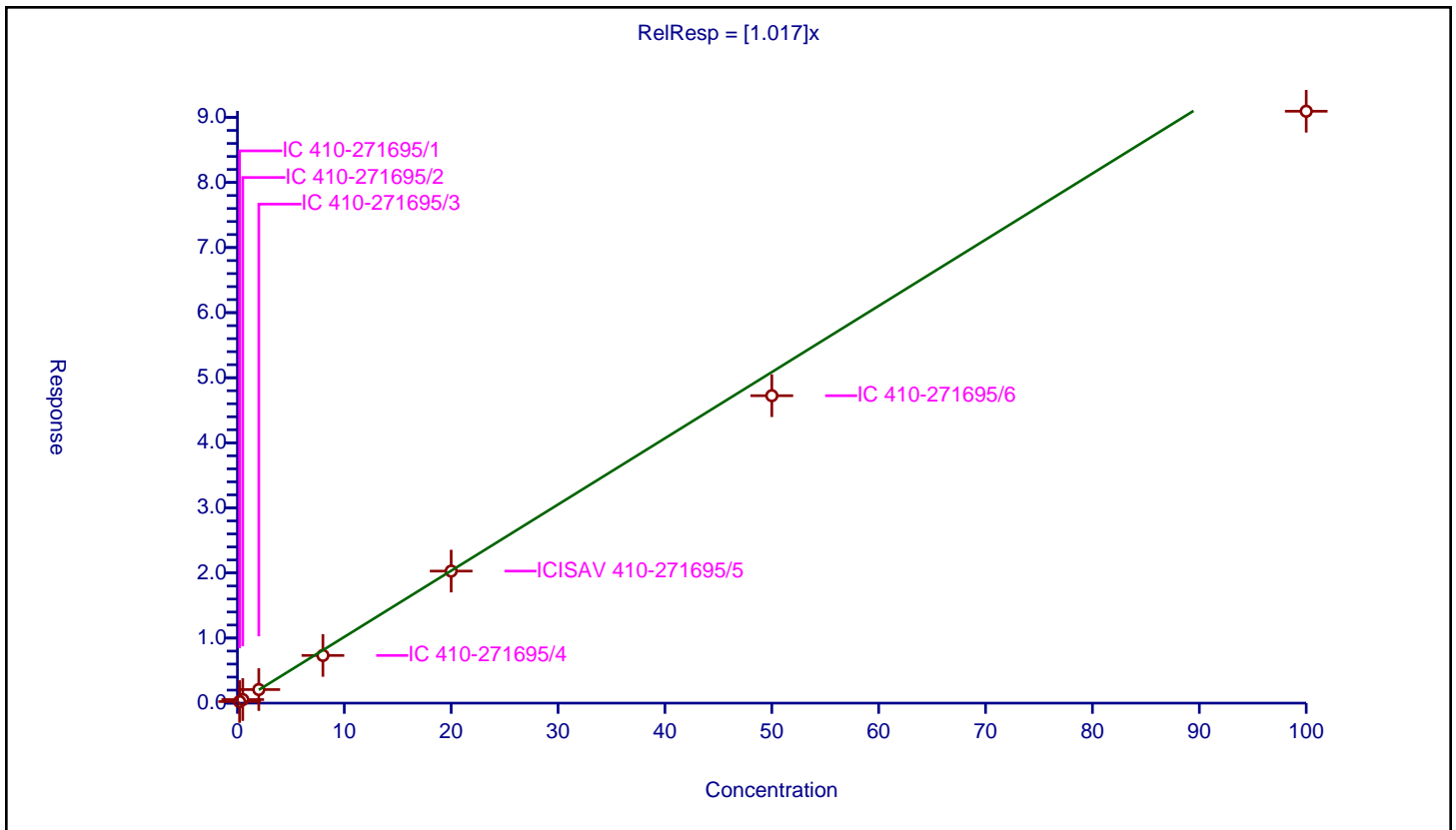
/ Perfluorooctanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.017

Error Coefficients	
Standard Error:	7460000
Relative Standard Error:	10.4
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.24012	10.0	2379189.0	1.200598	Y
2	IC 410-271695/2	0.5	0.546219	10.0	2529115.0	1.092437	Y
3	IC 410-271695/3	2.0	2.086839	10.0	2294418.0	1.043419	Y
4	IC 410-271695/4	8.0	7.326799	10.0	2376215.0	0.91585	Y
5	ICISAV 410-271695/5	20.0	20.287474	10.0	2174322.0	1.014374	Y
6	IC 410-271695/6	50.0	47.239075	10.0	1891533.0	0.944782	Y
7	IC 410-271695/7	100.0	90.947997	10.0	1673328.0	0.90948	Y



Calibration

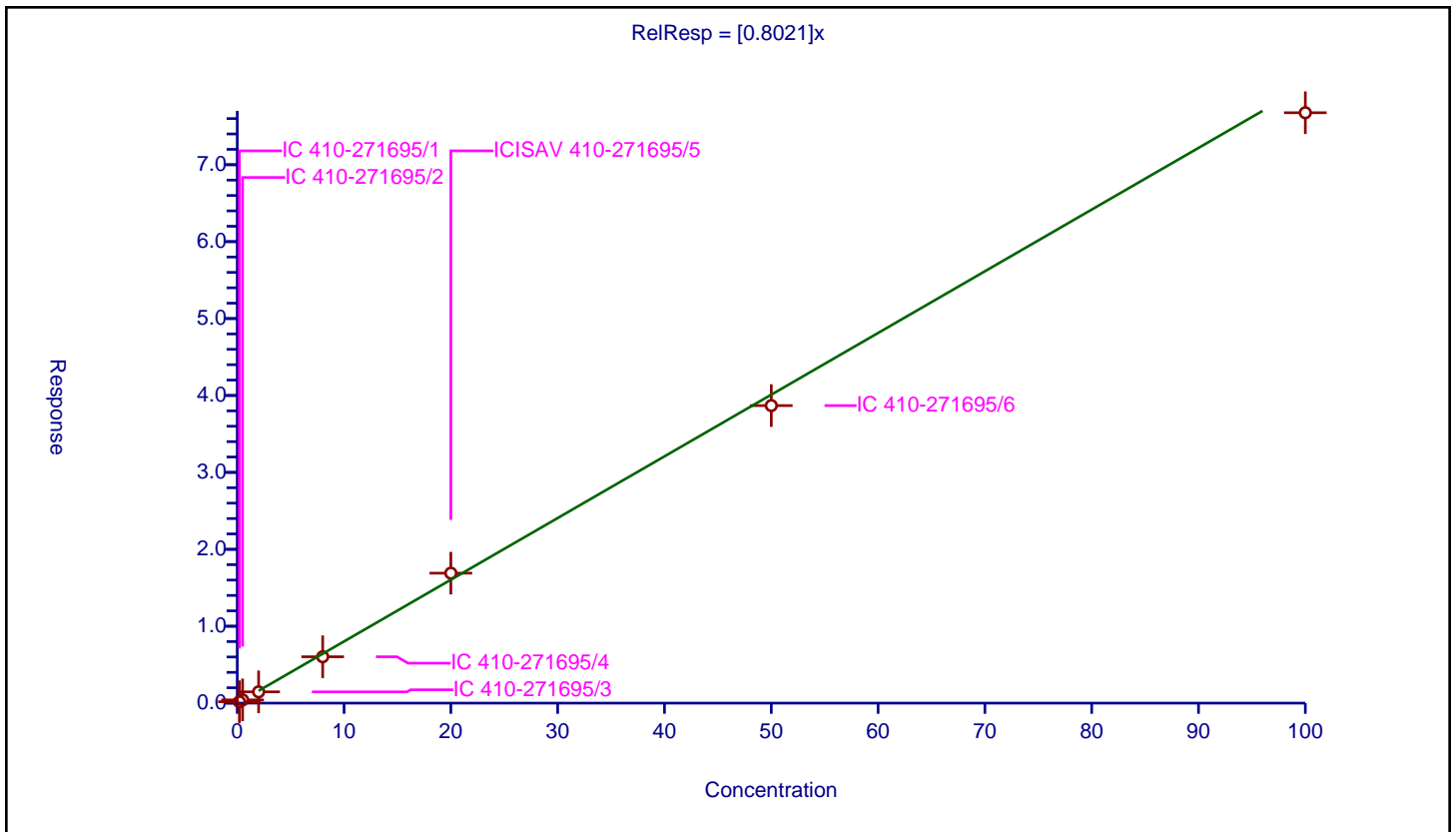
/ TAF

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

Curve Coefficients	
Intercept:	0
Slope:	0.8021

Error Coefficients	
Standard Error:	6660000
Relative Standard Error:	7.7
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.180824	10.0	2114930.0	0.90412	Y
2	IC 410-271695/2	0.5	0.418895	10.0	2279972.0	0.837791	Y
3	IC 410-271695/3	2.0	1.466205	10.0	2031933.0	0.733102	Y
4	IC 410-271695/4	8.0	6.027475	10.0	2198116.0	0.753434	Y
5	ICISAV 410-271695/5	20.0	16.896916	10.0	2100536.0	0.844846	Y
6	IC 410-271695/6	50.0	38.684382	10.0	1951189.0	0.773688	Y
7	IC 410-271695/7	100.0	76.760568	10.0	1817766.0	0.767606	Y



Calibration

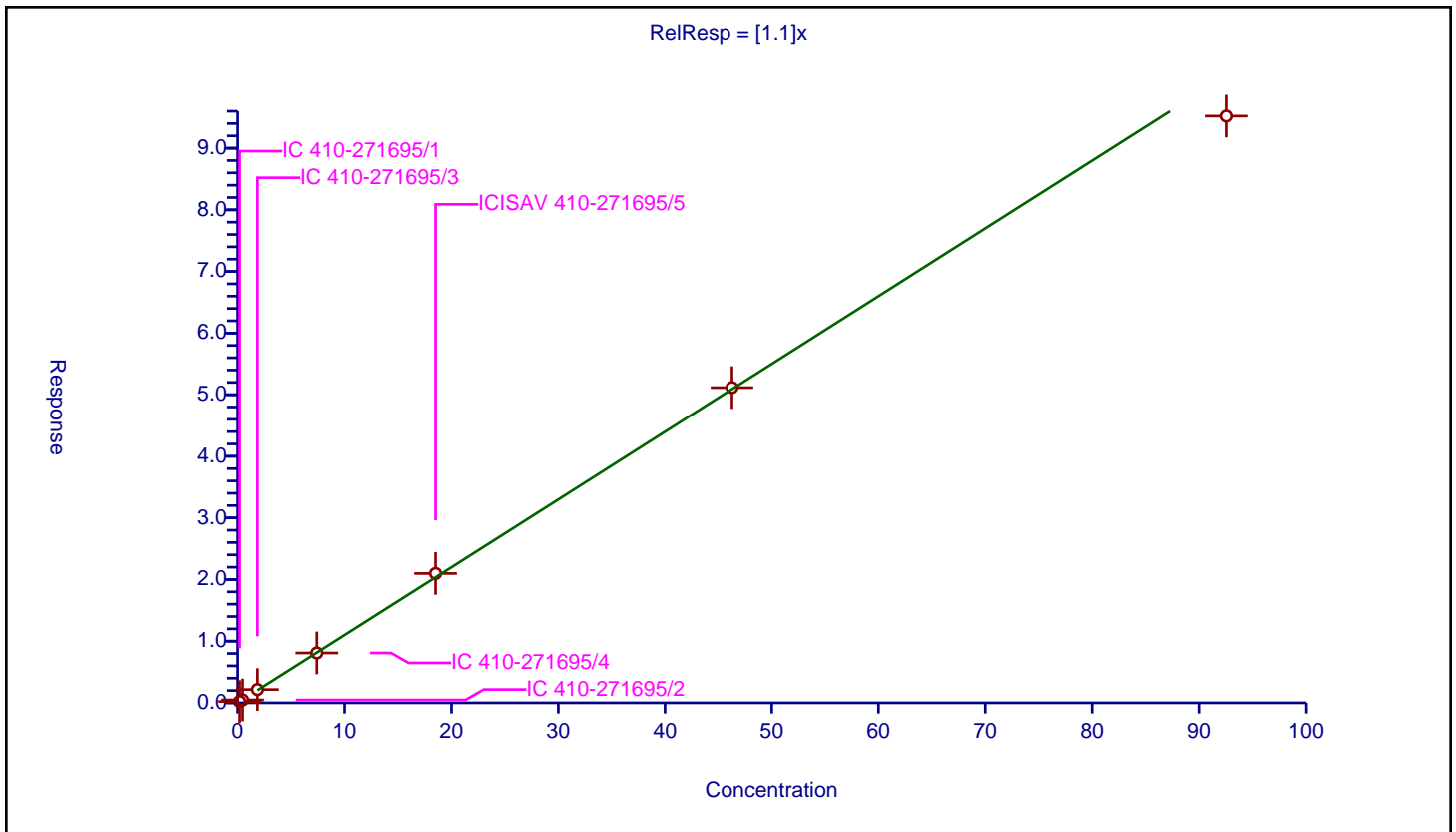
/ Perfluorooctanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.1

Error Coefficients	
Standard Error:	12300000
Relative Standard Error:	5.3
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.1851	0.21377	9.56	2912403.0	1.154891	Y
2	IC 410-271695/2	0.46275	0.471001	9.56	3287169.0	1.017831	Y
3	IC 410-271695/3	1.851	2.15808	9.56	2745820.0	1.165899	Y
4	IC 410-271695/4	7.404	8.086935	9.56	2982829.0	1.092239	Y
5	ICISAV 410-271695/5	18.51	20.983128	9.56	2958126.0	1.13361	Y
6	IC 410-271695/6	46.275	51.151048	9.56	2630072.0	1.105371	Y
7	IC 410-271695/7	92.55	95.215077	9.56	2590161.0	1.028796	Y



Calibration

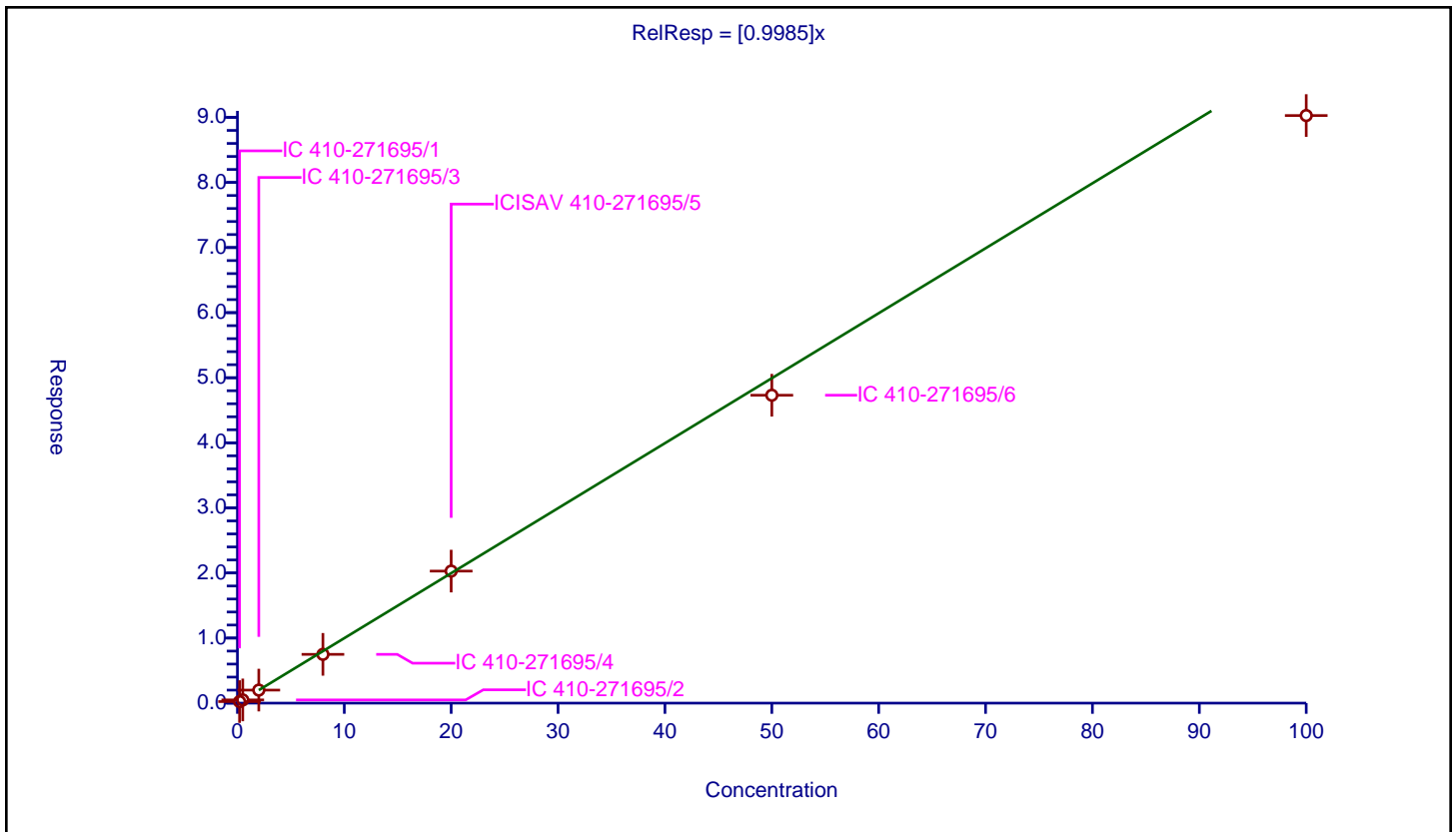
/ Perfluorononanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.9985

Error Coefficients	
Standard Error:	7290000
Relative Standard Error:	9.6
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.23928	10.0	2156131.0	1.196402	Y
2	IC 410-271695/2	0.5	0.495094	10.0	2466602.0	0.990188	Y
3	IC 410-271695/3	2.0	2.00501	10.0	2155037.0	1.002505	Y
4	IC 410-271695/4	8.0	7.493757	10.0	2140455.0	0.93672	Y
5	ICISAV 410-271695/5	20.0	20.289844	10.0	2100753.0	1.014492	Y
6	IC 410-271695/6	50.0	47.309268	10.0	1875475.0	0.946185	Y
7	IC 410-271695/7	100.0	90.28461	10.0	1641298.0	0.902846	Y



Calibration

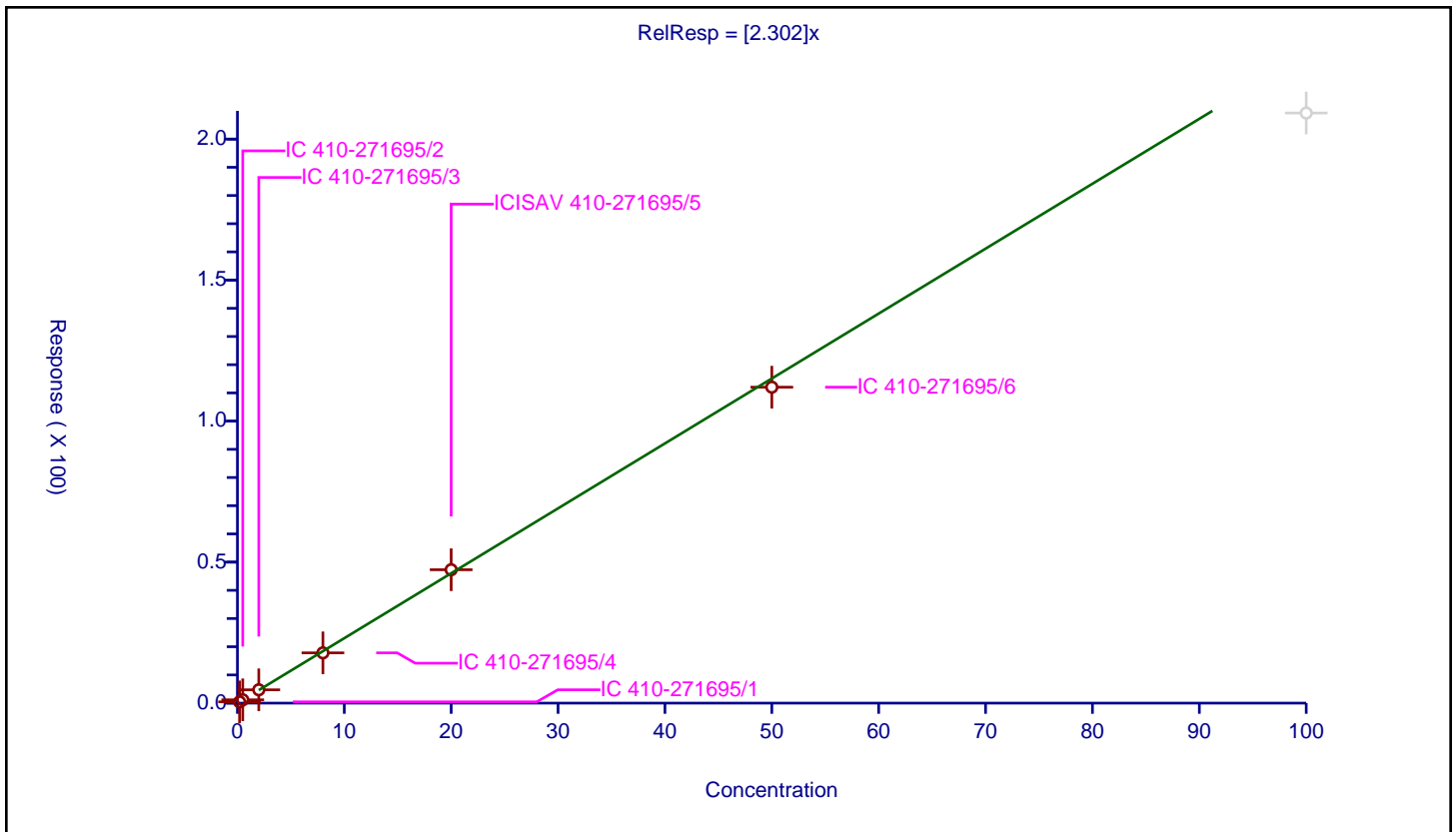
/ 7:3 FTCA

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

Curve Coefficients	
Intercept:	0
Slope:	2.302

Error Coefficients	
Standard Error:	1340000
Relative Standard Error:	2.9
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.451907	10.0	307143.0	2.259534	Y
2	IC 410-271695/2	0.5	1.177279	10.0	319593.0	2.354557	Y
3	IC 410-271695/3	2.0	4.729092	10.0	277068.0	2.364546	Y
4	IC 410-271695/4	8.0	17.826686	10.0	285909.0	2.228336	Y
5	ICISAV 410-271695/5	20.0	47.295982	10.0	263175.0	2.364799	Y
6	IC 410-271695/6	50.0	112.027762	10.0	239752.0	2.240555	Y
7	IC 410-271695/7	100.0	209.242411	10.0	226112.0	2.092424	N



Calibration

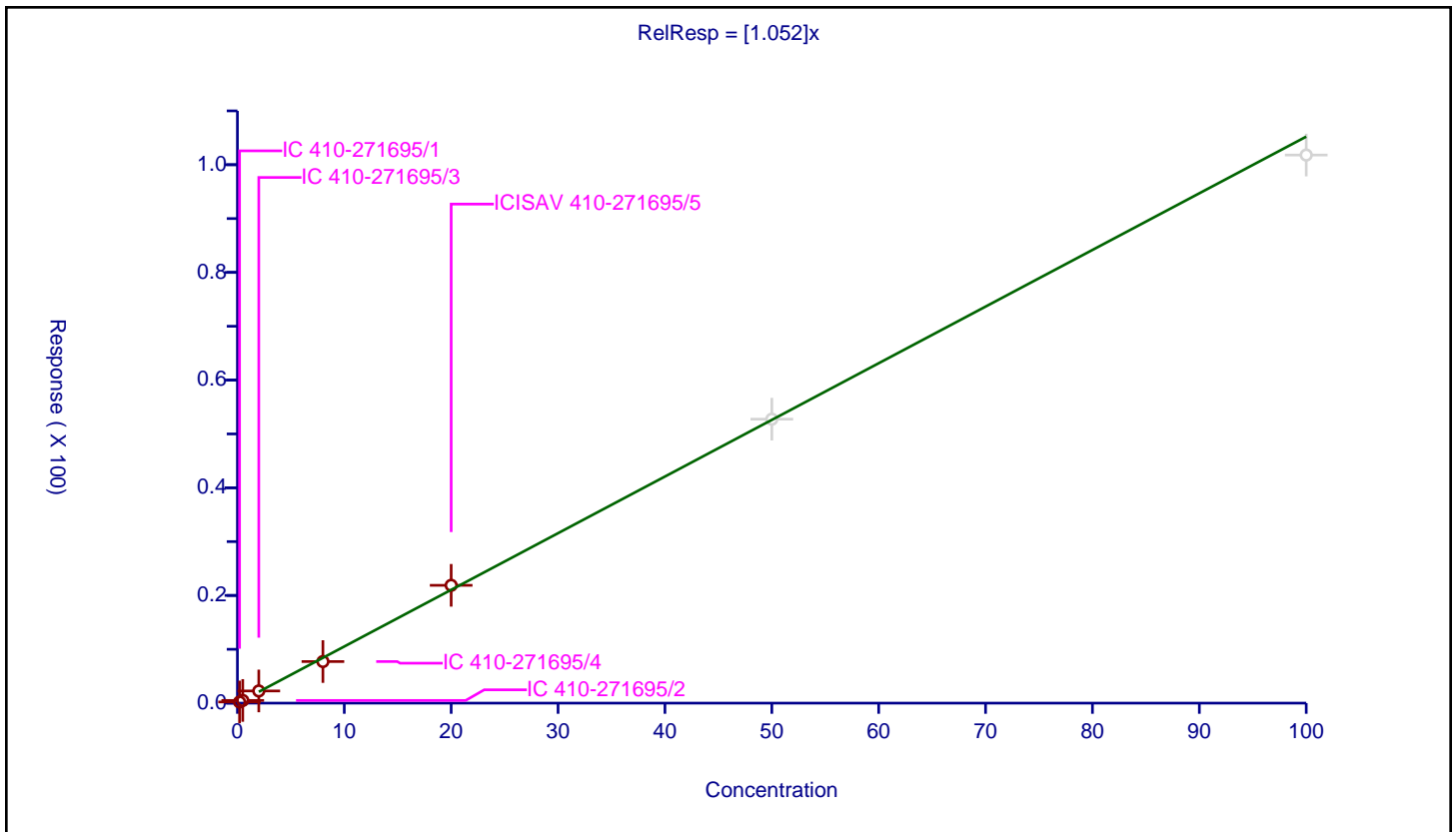
/ 8:2 FTUCA

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

Curve Coefficients	
Intercept:	0
Slope:	1.052

Error Coefficients	
Standard Error:	2400000
Relative Standard Error:	6.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.214321	10.0	2160919.0	1.071604	Y
2	IC 410-271695/2	0.5	0.499361	10.0	2380961.0	0.998723	Y
3	IC 410-271695/3	2.0	2.260943	10.0	2024735.0	1.130471	Y
4	IC 410-271695/4	8.0	7.726324	10.0	2212562.0	0.96579	Y
5	ICISAV 410-271695/5	20.0	21.882321	10.0	2038680.0	1.094116	Y
6	IC 410-271695/6	50.0	52.741129	10.0	1665799.0	1.054823	N
7	IC 410-271695/7	100.0	101.796877	10.0	1437294.0	1.017969	N



Calibration

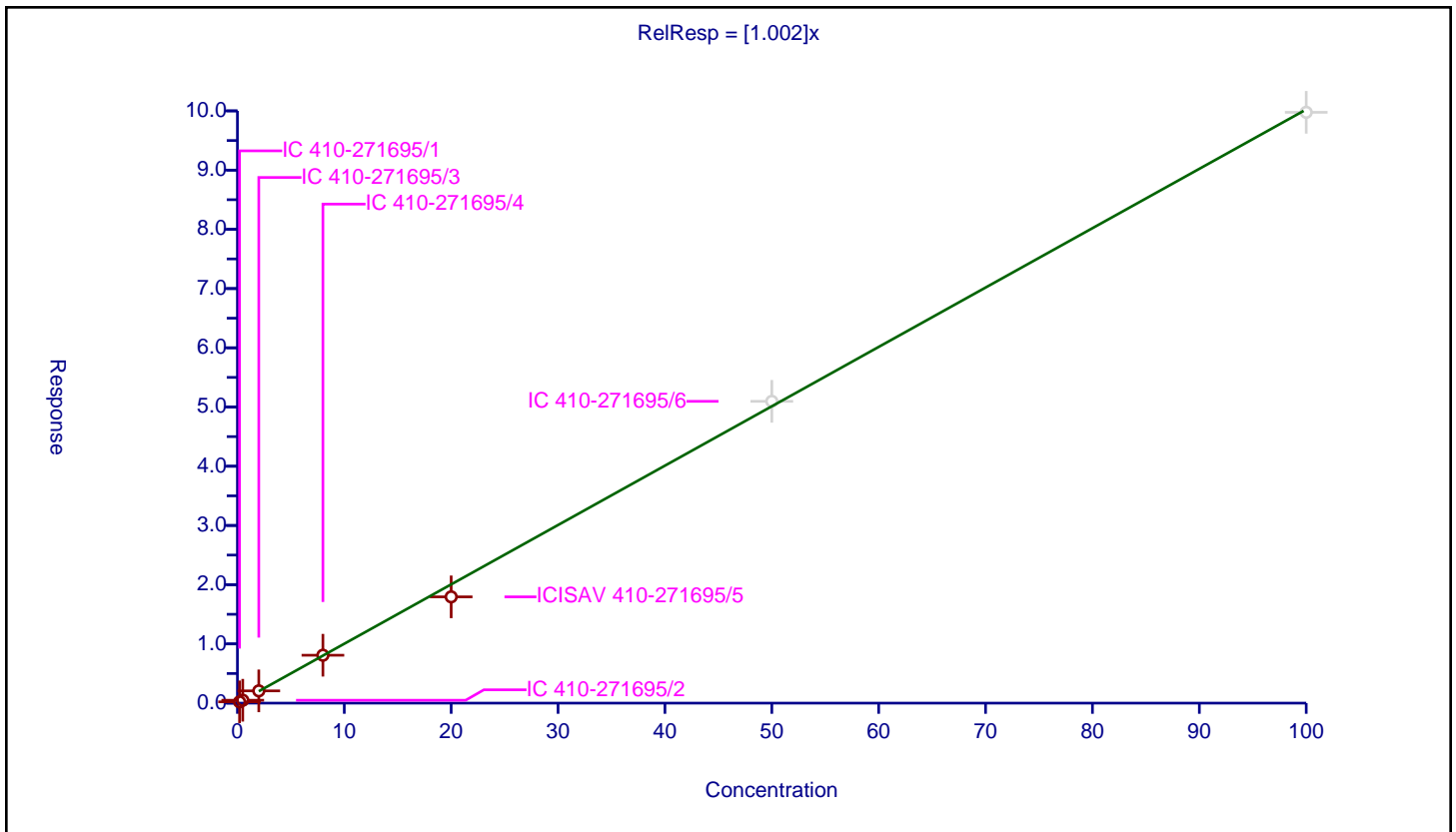
/ 8:2 FTCA

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

Curve Coefficients	
Intercept:	0
Slope:	1.002

Error Coefficients	
Standard Error:	219000
Relative Standard Error:	7.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.218889	10.0	226919.0	1.094443	Y
2	IC 410-271695/2	0.5	0.486542	10.0	241747.0	0.973083	Y
3	IC 410-271695/3	2.0	2.072366	10.0	216704.0	1.036183	Y
4	IC 410-271695/4	8.0	8.08806	10.0	207653.0	1.011008	Y
5	ICISAV 410-271695/5	20.0	17.946543	10.0	224066.0	0.897327	Y
6	IC 410-271695/6	50.0	50.960542	10.0	175984.0	1.019211	N
7	IC 410-271695/7	100.0	99.756281	10.0	150460.0	0.997563	N



Calibration

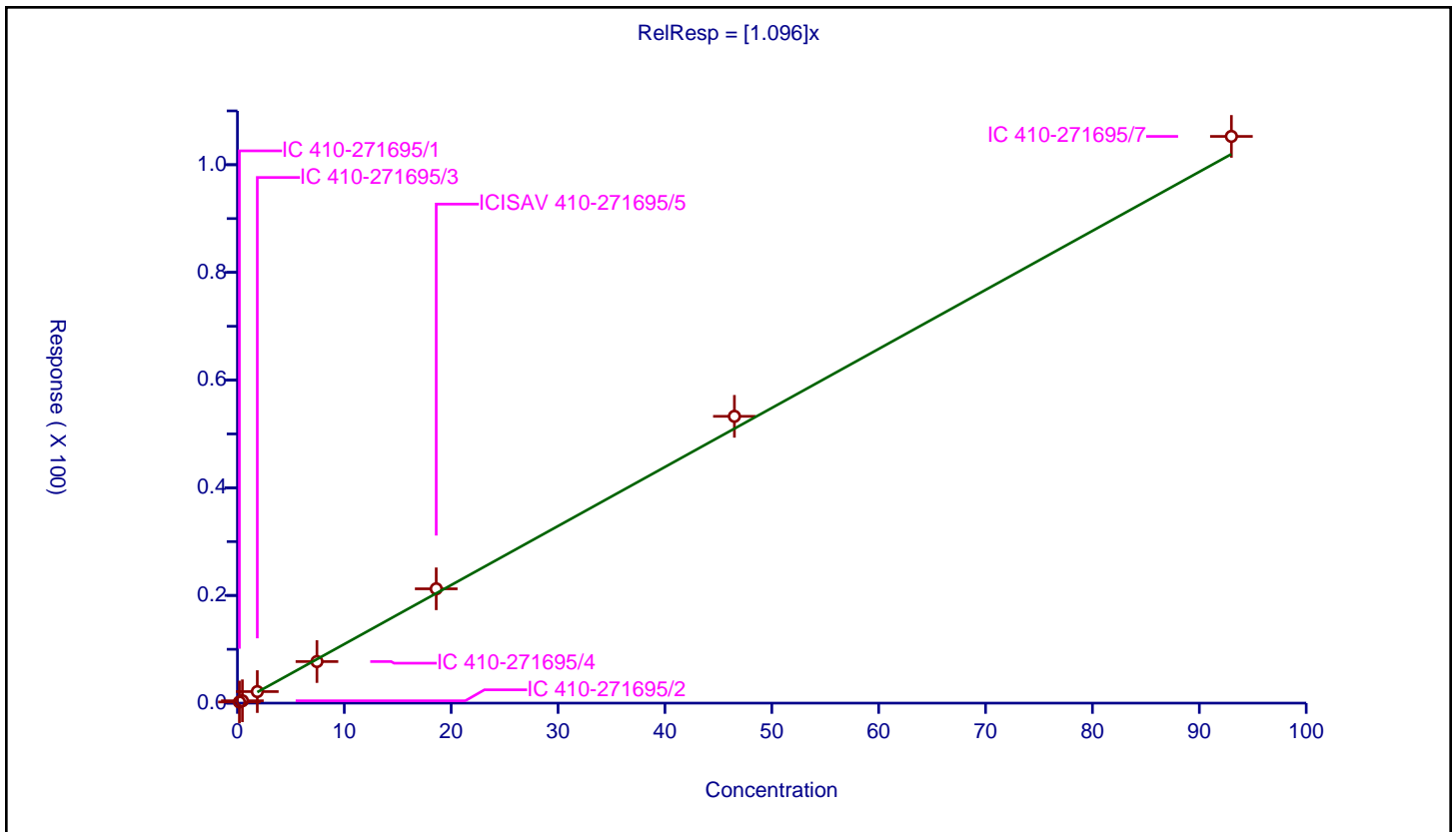
/ 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.096

Error Coefficients	
Standard Error:	13400000
Relative Standard Error:	7.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.186	0.209372	9.56	2912403.0	1.125655	Y
2	IC 410-271695/2	0.465	0.437338	9.56	3287169.0	0.940512	Y
3	IC 410-271695/3	1.86	2.143593	9.56	2745820.0	1.152469	Y
4	IC 410-271695/4	7.44	7.72049	9.56	2982829.0	1.0377	Y
5	ICISAV 410-271695/5	18.6	21.232424	9.56	2958126.0	1.141528	Y
6	IC 410-271695/6	46.5	53.271311	9.56	2630072.0	1.14562	Y
7	IC 410-271695/7	93.0	105.262784	9.56	2590161.0	1.131858	Y



Calibration

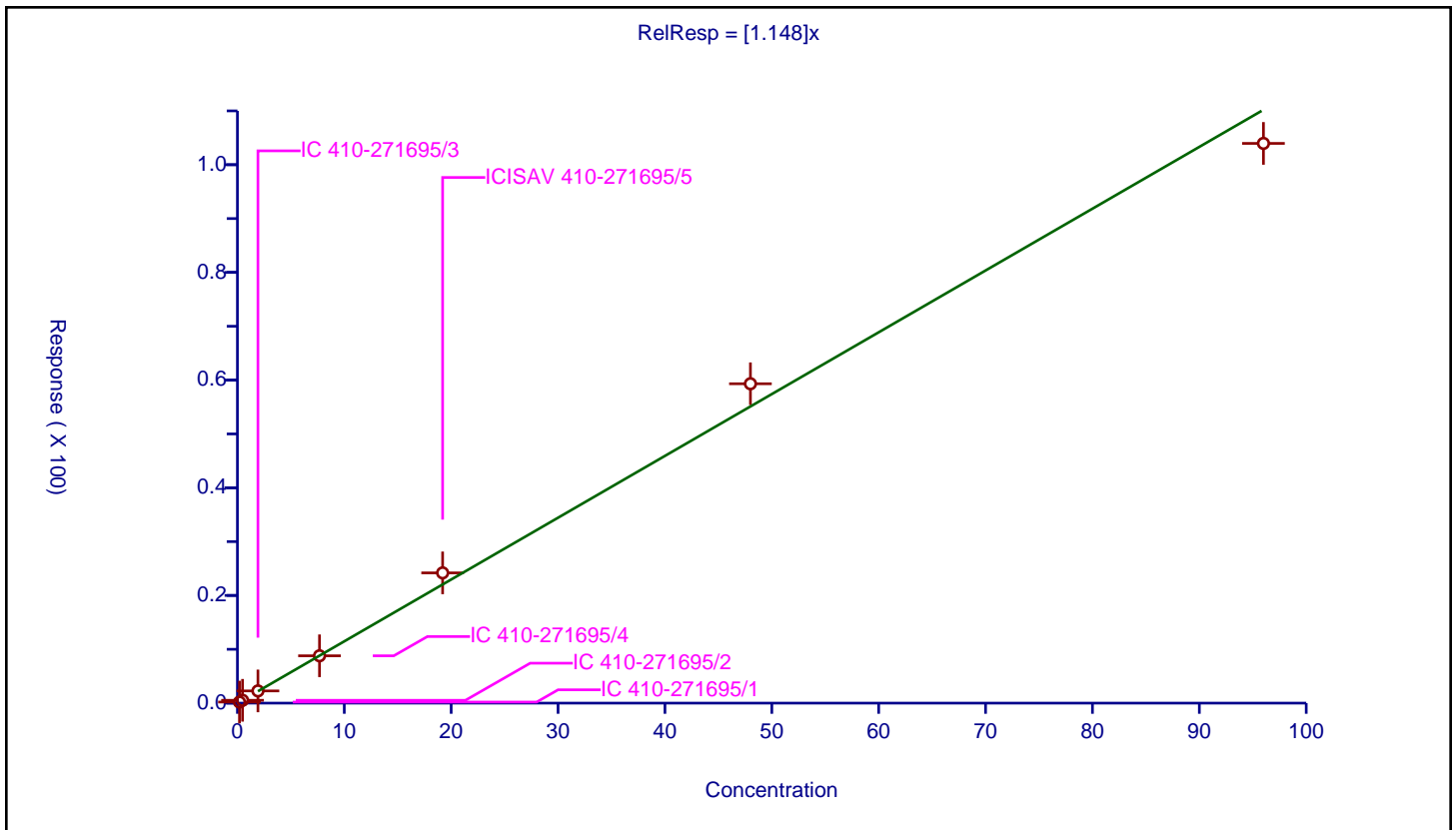
/ Perfluorononanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.148

Error Coefficients	
Standard Error:	13700000
Relative Standard Error:	7.3
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.192	0.197867	9.56	2912403.0	1.030555	Y
2	IC 410-271695/2	0.48	0.528012	9.56	3287169.0	1.100026	Y
3	IC 410-271695/3	1.92	2.268334	9.56	2745820.0	1.181424	Y
4	IC 410-271695/4	7.68	8.791057	9.56	2982829.0	1.144669	Y
5	ICISAV 410-271695/5	19.2	24.193135	9.56	2958126.0	1.260059	Y
6	IC 410-271695/6	48.0	59.319343	9.56	2630072.0	1.23582	Y
7	IC 410-271695/7	96.0	103.96028	9.56	2590161.0	1.08292	Y



Calibration

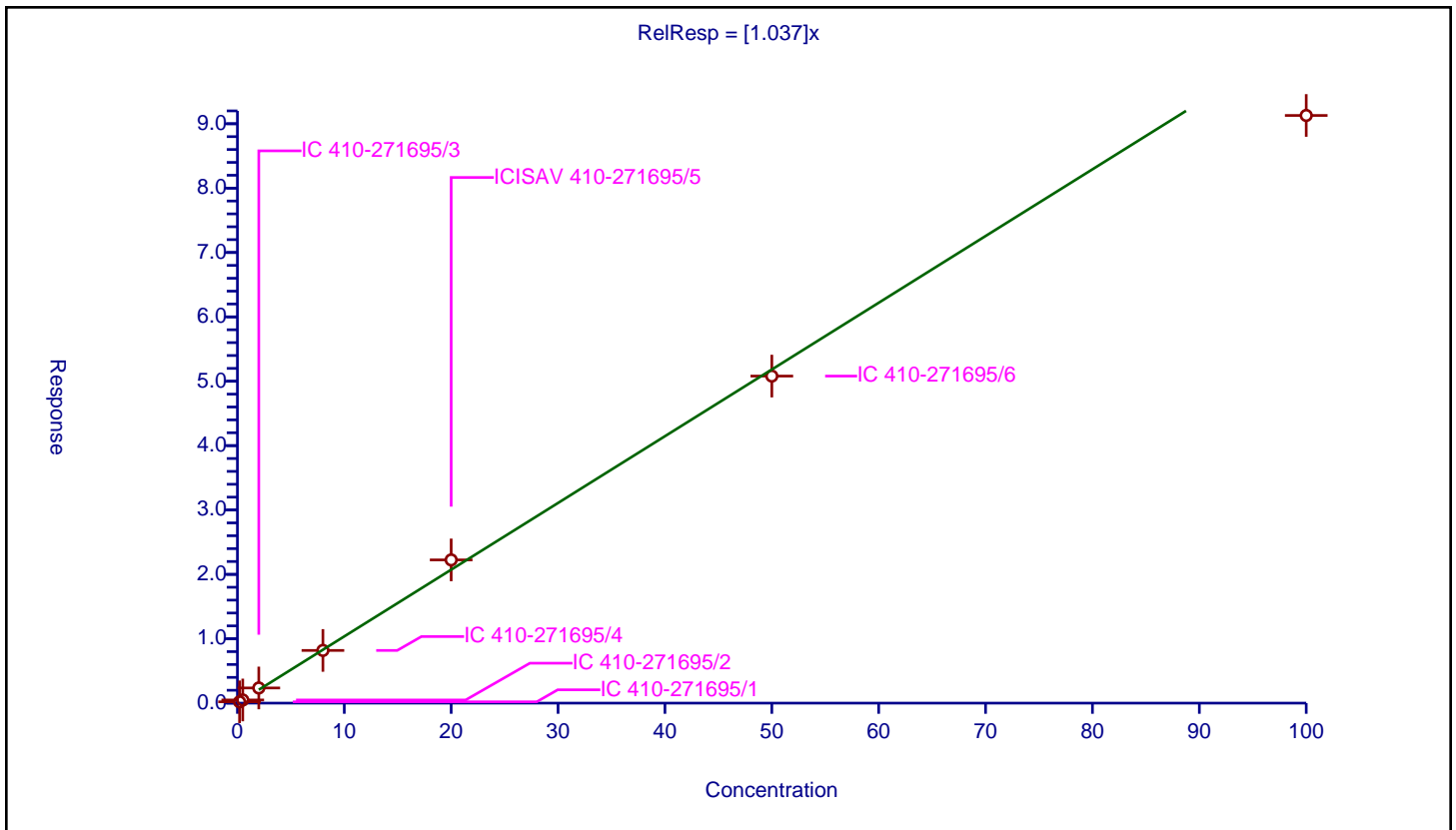
/ Perfluorodecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.037

Error Coefficients	
Standard Error:	7600000
Relative Standard Error:	8.3
Correlation Coefficient:	0.986
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.20673	10.0	2226671.0	1.033651	Y
2	IC 410-271695/2	0.5	0.489615	10.0	2283039.0	0.97923	Y
3	IC 410-271695/3	2.0	2.356071	10.0	1819224.0	1.178035	Y
4	IC 410-271695/4	8.0	8.187698	10.0	1992245.0	1.023462	Y
5	ICISAV 410-271695/5	20.0	22.247607	10.0	2043155.0	1.11238	Y
6	IC 410-271695/6	50.0	50.804424	10.0	1826848.0	1.016088	Y
7	IC 410-271695/7	100.0	91.288534	10.0	1685947.0	0.912885	Y



Calibration

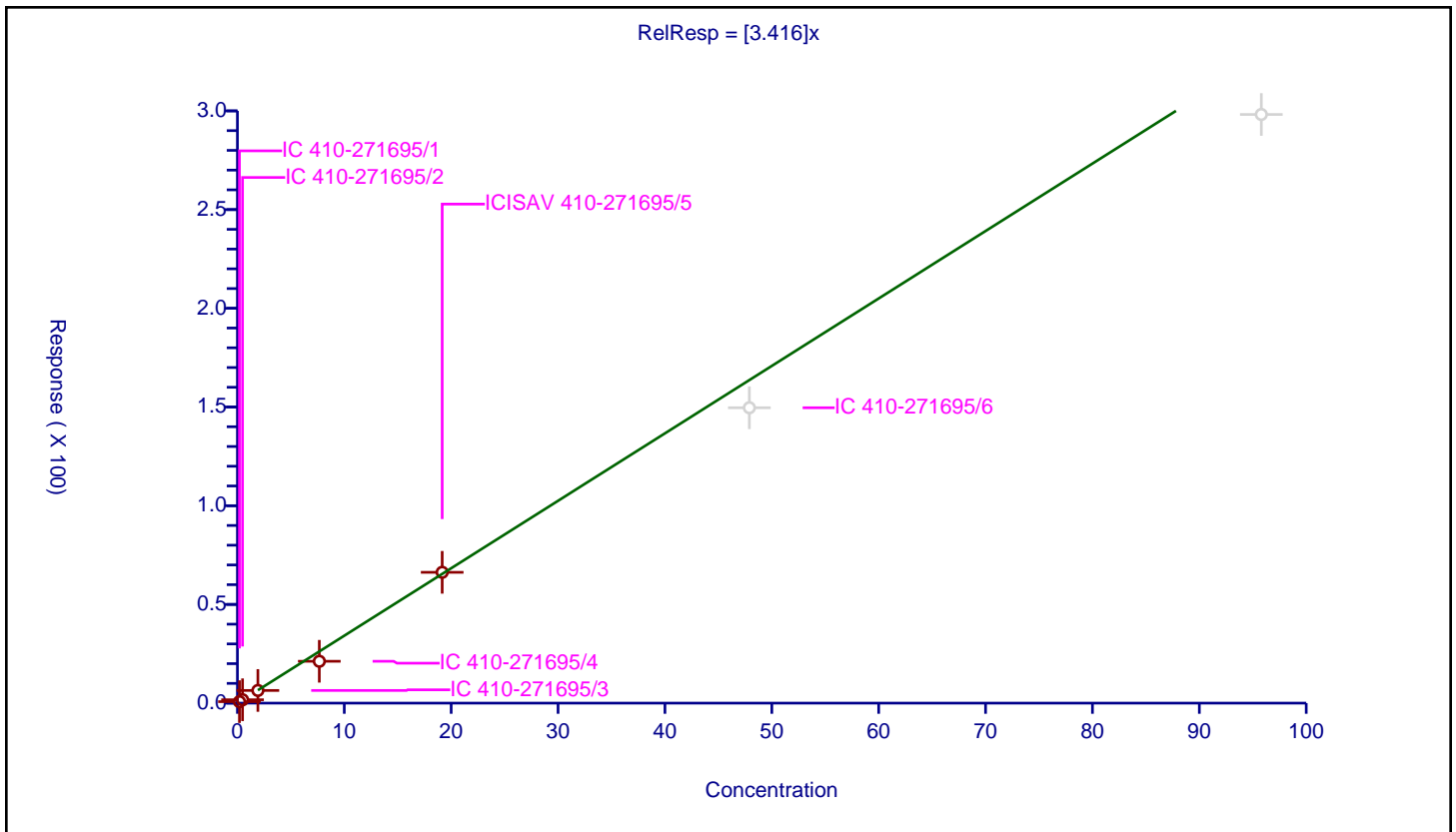
/ 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)

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

Curve Coefficients	
Intercept:	0
Slope:	3.416

Error Coefficients	
Standard Error:	323000
Relative Standard Error:	12.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.976

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.1916	0.753774	9.58	104344.0	3.934103	Y
2	IC 410-271695/2	0.479	1.711954	9.58	100492.0	3.574016	Y
3	IC 410-271695/3	1.916	6.415593	9.58	90744.0	3.348431	Y
4	IC 410-271695/4	7.664	21.204022	9.58	95649.0	2.766704	Y
5	ICISAV 410-271695/5	19.16	66.264268	9.58	87766.0	3.458469	Y
6	IC 410-271695/6	47.9	149.625778	9.58	77490.0	3.123711	N
7	IC 410-271695/7	95.8	298.180972	9.58	65522.0	3.112536	N



Calibration

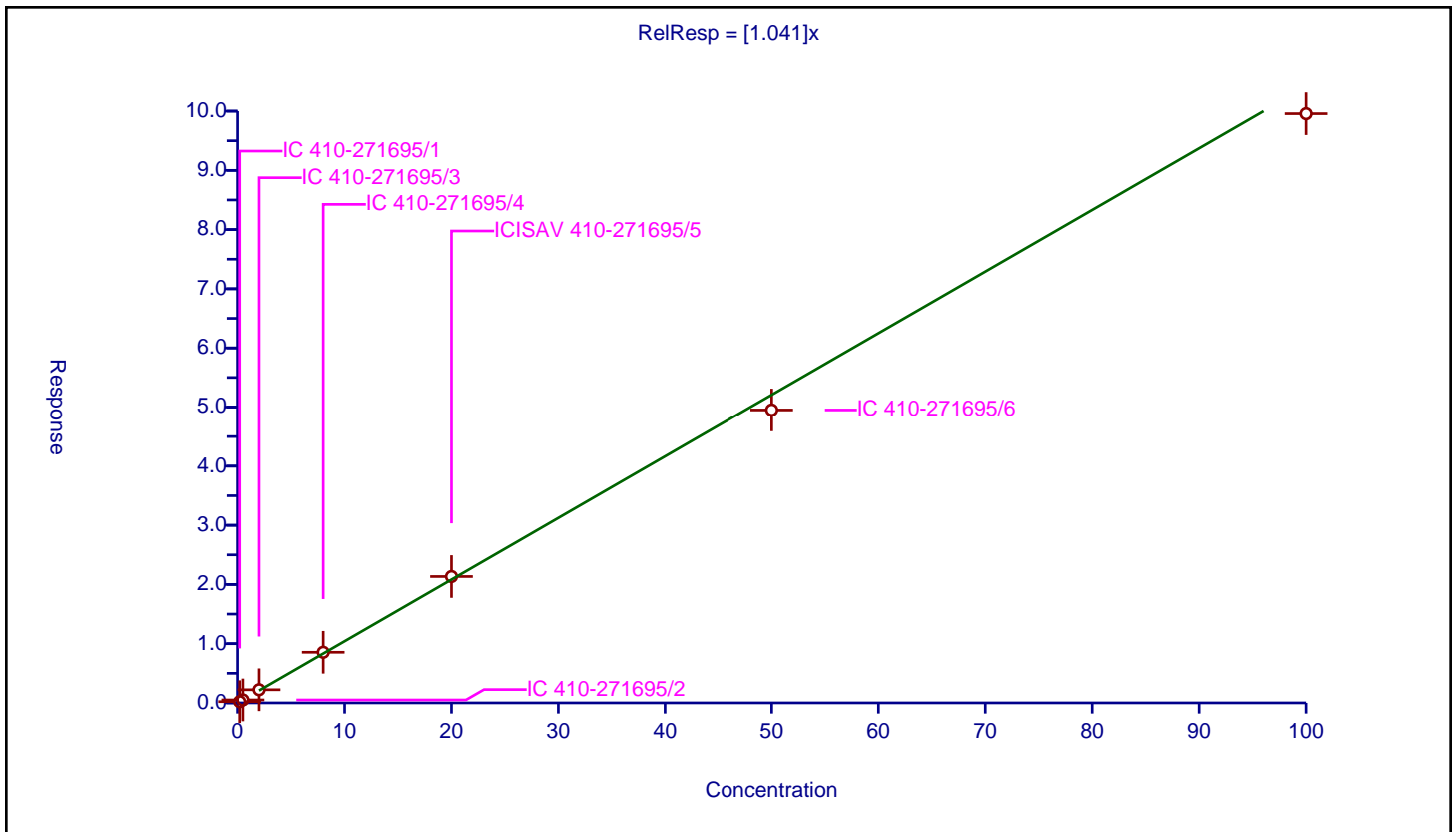
/ Perfluorooctanesulfonamide

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

Curve Coefficients	
Intercept:	0
Slope:	1.041

Error Coefficients	
Standard Error:	18400000
Relative Standard Error:	4.3
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.210434	10.0	4551444.0	1.052172	Y
2	IC 410-271695/2	0.5	0.502762	10.0	5044057.0	1.005524	Y
3	IC 410-271695/3	2.0	2.220457	10.0	4462324.0	1.110229	Y
4	IC 410-271695/4	8.0	8.552642	10.0	4570243.0	1.06908	Y
5	ICISAV 410-271695/5	20.0	21.339502	10.0	4596471.0	1.066975	Y
6	IC 410-271695/6	50.0	49.505007	10.0	4198117.0	0.9901	Y
7	IC 410-271695/7	100.0	99.574293	10.0	3861481.0	0.995743	Y



Calibration

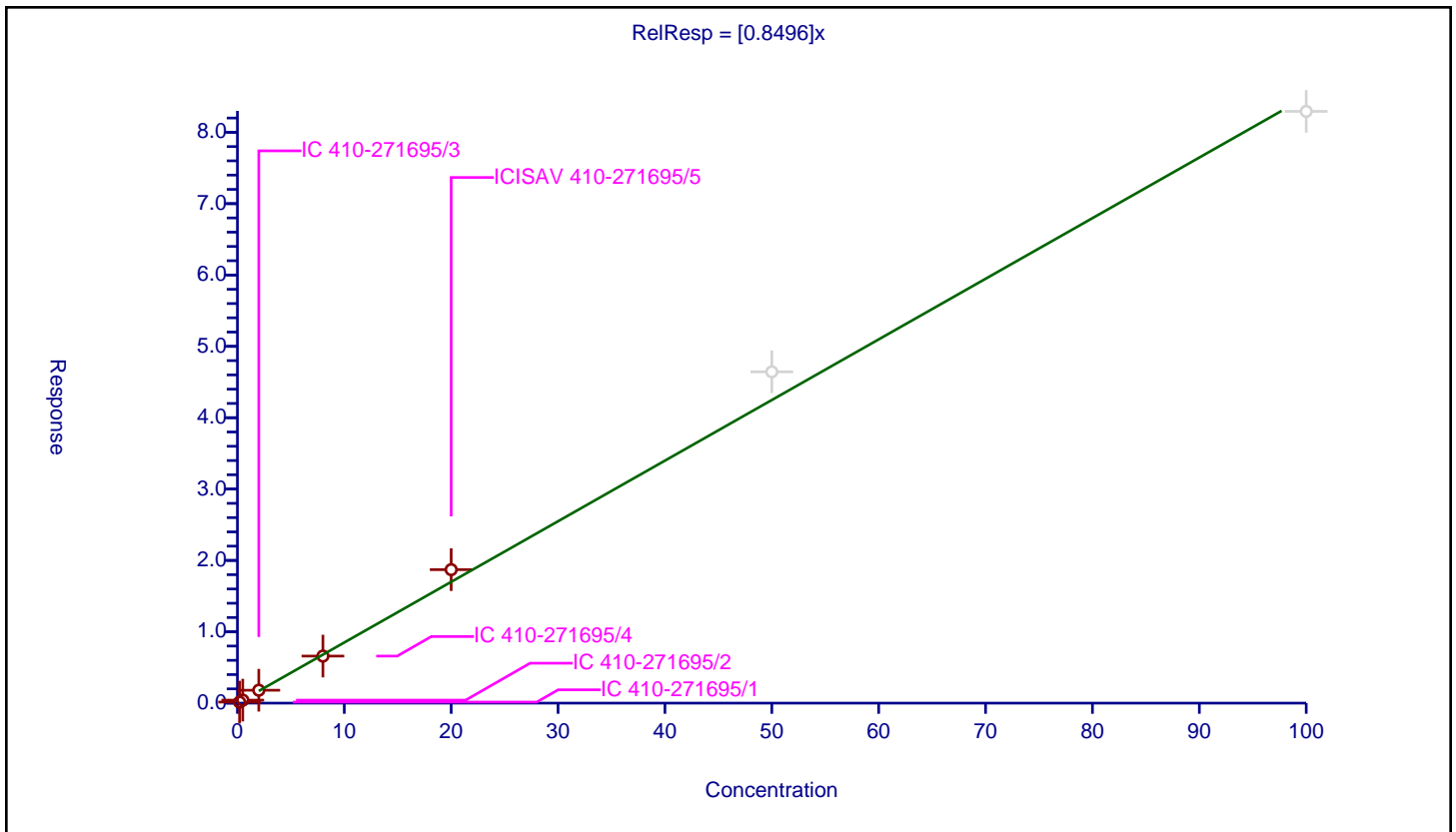
/ N-methylperfluorooctanesulfonamidoacetic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.8496

Error Coefficients	
Standard Error:	842000
Relative Standard Error:	8.8
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.148627	10.0	827913.0	0.743134	Y
2	IC 410-271695/2	0.5	0.42103	10.0	884283.0	0.842061	Y
3	IC 410-271695/3	2.0	1.806625	10.0	749292.0	0.903313	Y
4	IC 410-271695/4	8.0	6.593319	10.0	821744.0	0.824165	Y
5	ICISAV 410-271695/5	20.0	18.705505	10.0	849412.0	0.935275	Y
6	IC 410-271695/6	50.0	46.431494	10.0	705029.0	0.92863	N
7	IC 410-271695/7	100.0	82.92759	10.0	720374.0	0.829276	N



Calibration

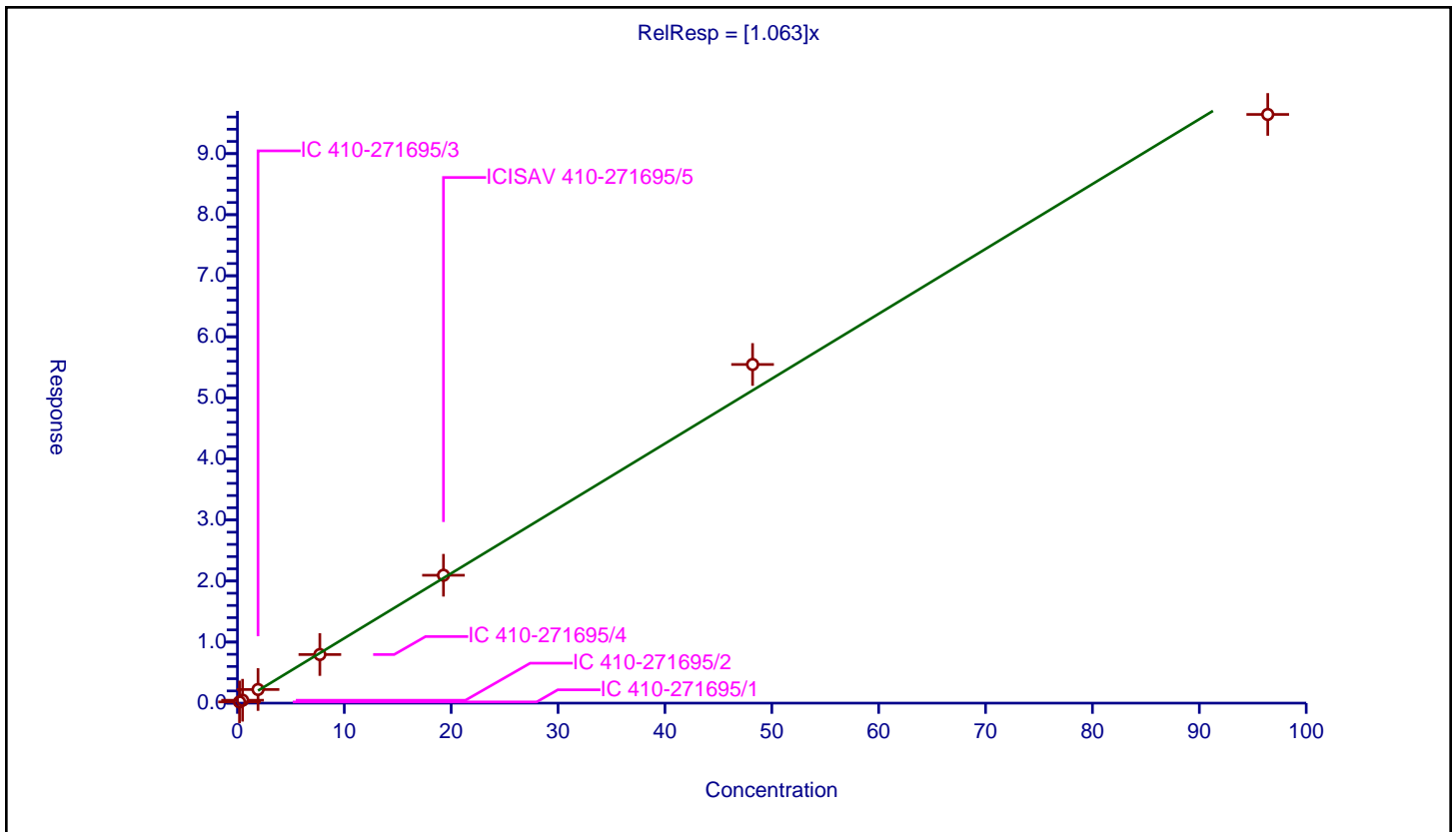
/ Perfluorodecanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.063

Error Coefficients	
Standard Error:	12700000
Relative Standard Error:	6.7
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.1928	0.199235	9.56	2912403.0	1.033379	Y
2	IC 410-271695/2	0.482	0.471577	9.56	3287169.0	0.978376	Y
3	IC 410-271695/3	1.928	2.232765	9.56	2745820.0	1.158073	Y
4	IC 410-271695/4	7.712	7.956837	9.56	2982829.0	1.031748	Y
5	ICISAV 410-271695/5	19.28	20.944964	9.56	2958126.0	1.086357	Y
6	IC 410-271695/6	48.2	55.46687	9.56	2630072.0	1.150765	Y
7	IC 410-271695/7	96.4	96.419474	9.56	2590161.0	1.000202	Y



Calibration

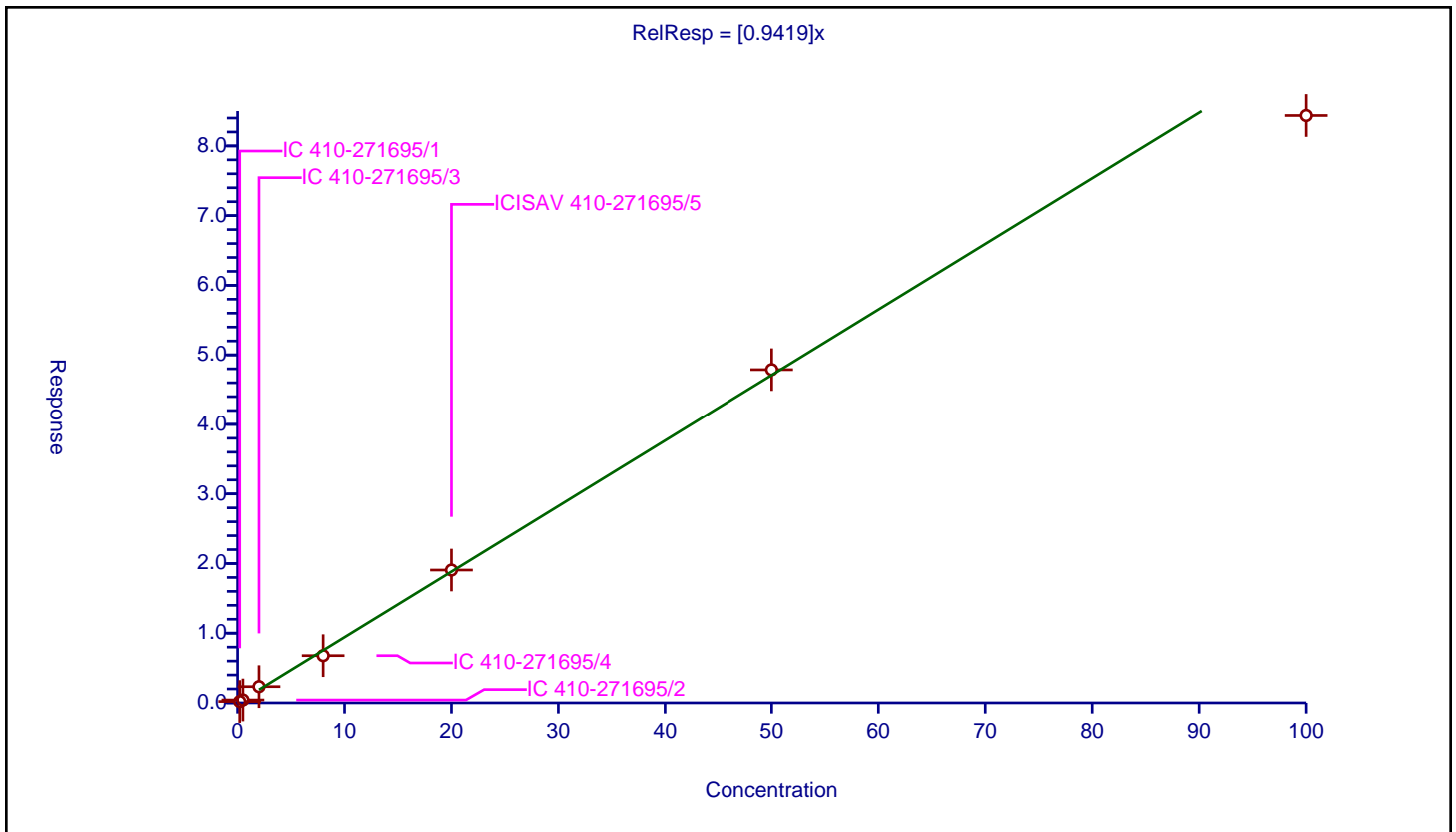
/ Perfluoroundecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.9419

Error Coefficients	
Standard Error:	5260000
Relative Standard Error:	12.4
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.198498	10.0	1421375.0	0.99249	Y
2	IC 410-271695/2	0.5	0.417822	10.0	1622173.0	0.835645	Y
3	IC 410-271695/3	2.0	2.328121	10.0	1296002.0	1.164061	Y
4	IC 410-271695/4	8.0	6.774845	10.0	1614490.0	0.846856	Y
5	ICISAV 410-271695/5	20.0	19.063985	10.0	1550520.0	0.953199	Y
6	IC 410-271695/6	50.0	47.884819	10.0	1299846.0	0.957696	Y
7	IC 410-271695/7	100.0	84.363126	10.0	1283252.0	0.843631	Y



Calibration

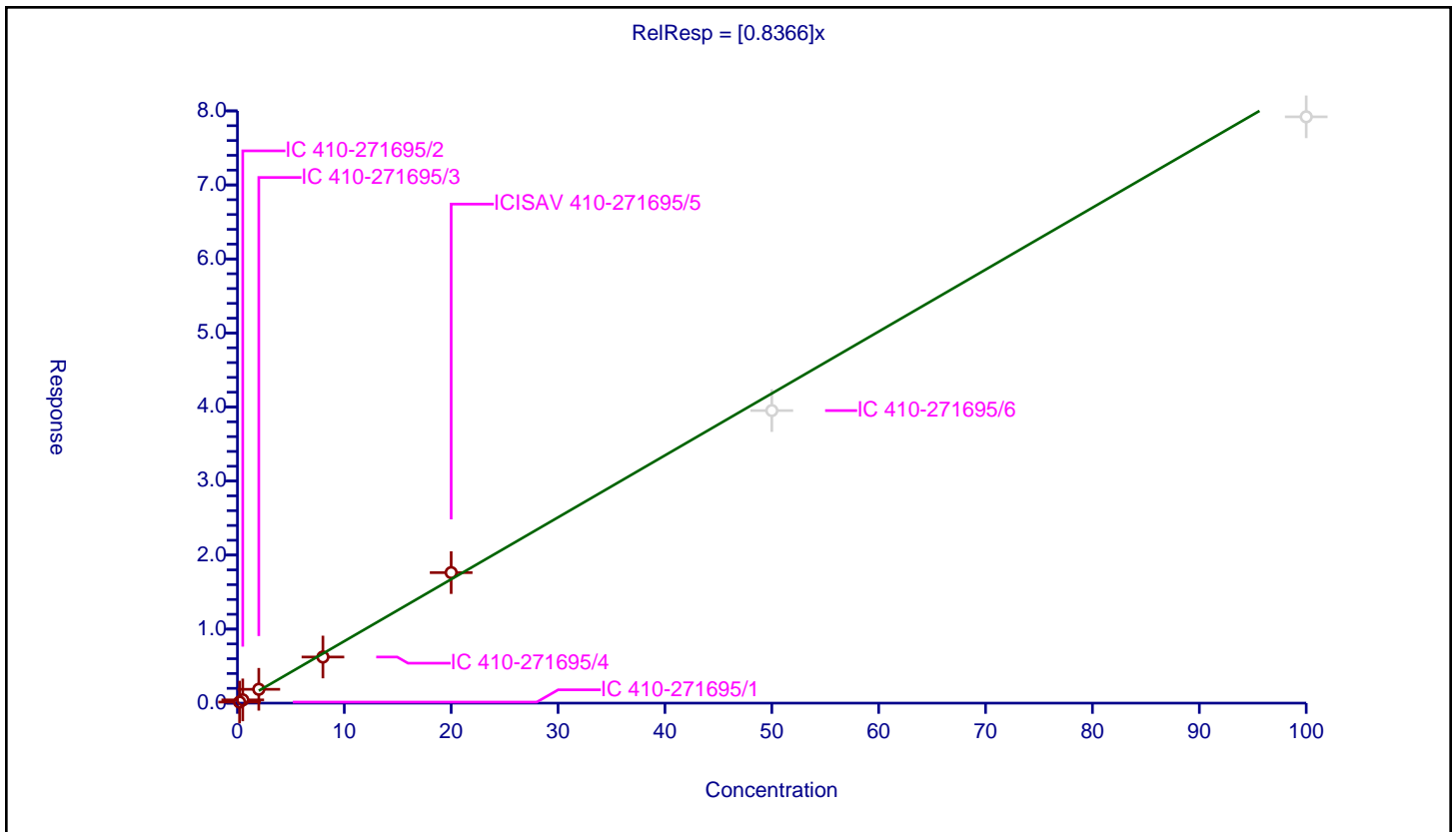
/ N-ethylperfluorooctanesulfonamidoacetic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.8366

Error Coefficients	
Standard Error:	635000
Relative Standard Error:	10.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.142311	10.0	709292.0	0.711555	Y
2	IC 410-271695/2	0.5	0.438191	10.0	746250.0	0.876382	Y
3	IC 410-271695/3	2.0	1.86939	10.0	689535.0	0.934695	Y
4	IC 410-271695/4	8.0	6.228744	10.0	684976.0	0.778593	Y
5	ICISAV 410-271695/5	20.0	17.631477	10.0	673842.0	0.881574	Y
6	IC 410-271695/6	50.0	39.517693	10.0	582596.0	0.790354	N
7	IC 410-271695/7	100.0	79.199217	10.0	551098.0	0.791992	N



Calibration

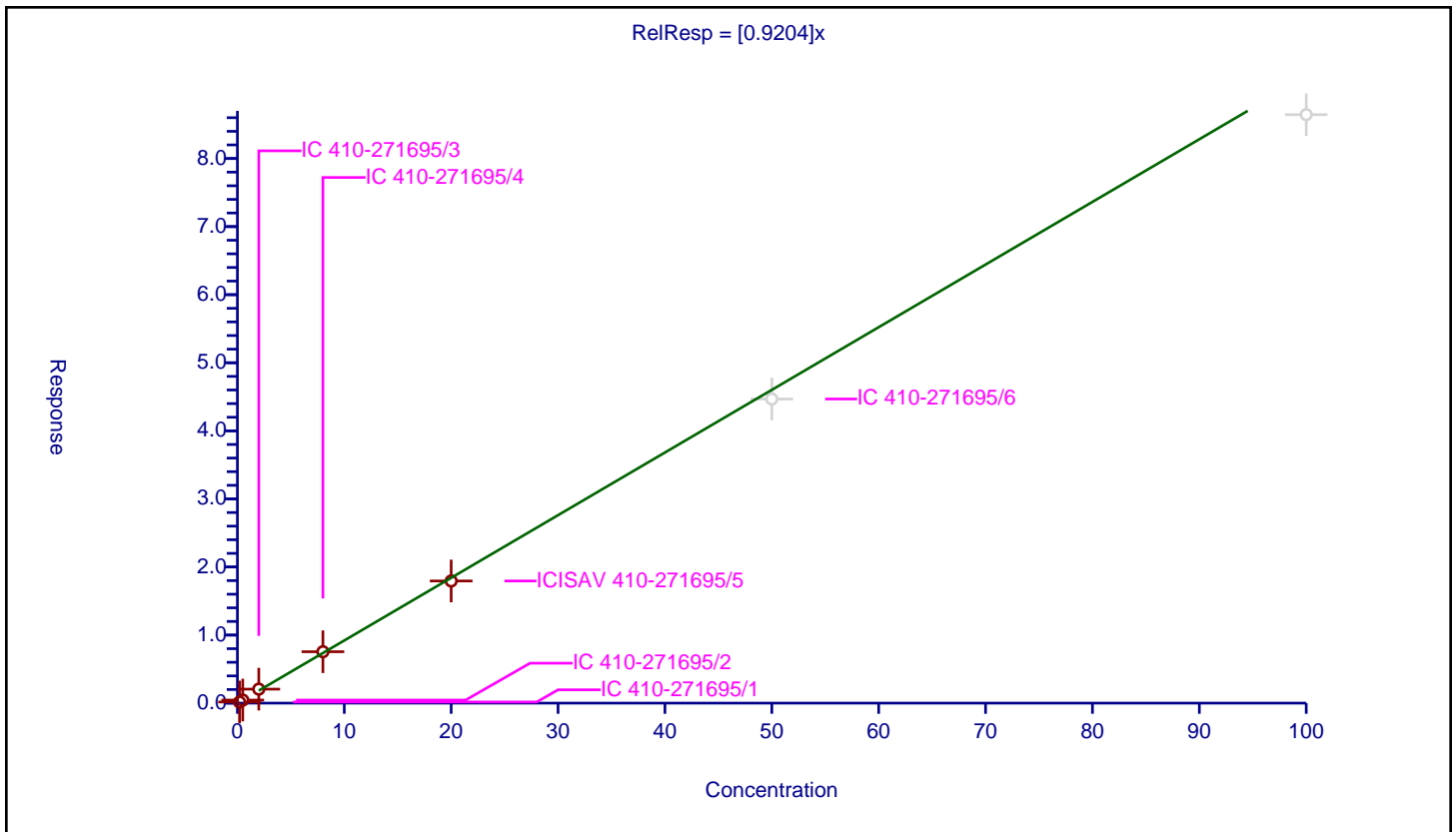
/ 10:2 FTUCA

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

Curve Coefficients	
Intercept:	0
Slope:	0.9204

Error Coefficients	
Standard Error:	1830000
Relative Standard Error:	7.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.166214	10.0	2017342.0	0.831069	Y
2	IC 410-271695/2	0.5	0.450466	10.0	2222674.0	0.900933	Y
3	IC 410-271695/3	2.0	2.056721	10.0	1766292.0	1.028361	Y
4	IC 410-271695/4	8.0	7.554076	10.0	1922713.0	0.944259	Y
5	ICISAV 410-271695/5	20.0	17.944779	10.0	1866174.0	0.897239	Y
6	IC 410-271695/6	50.0	44.67298	10.0	1619838.0	0.89346	N
7	IC 410-271695/7	100.0	86.446256	10.0	1399811.0	0.864463	N



Calibration

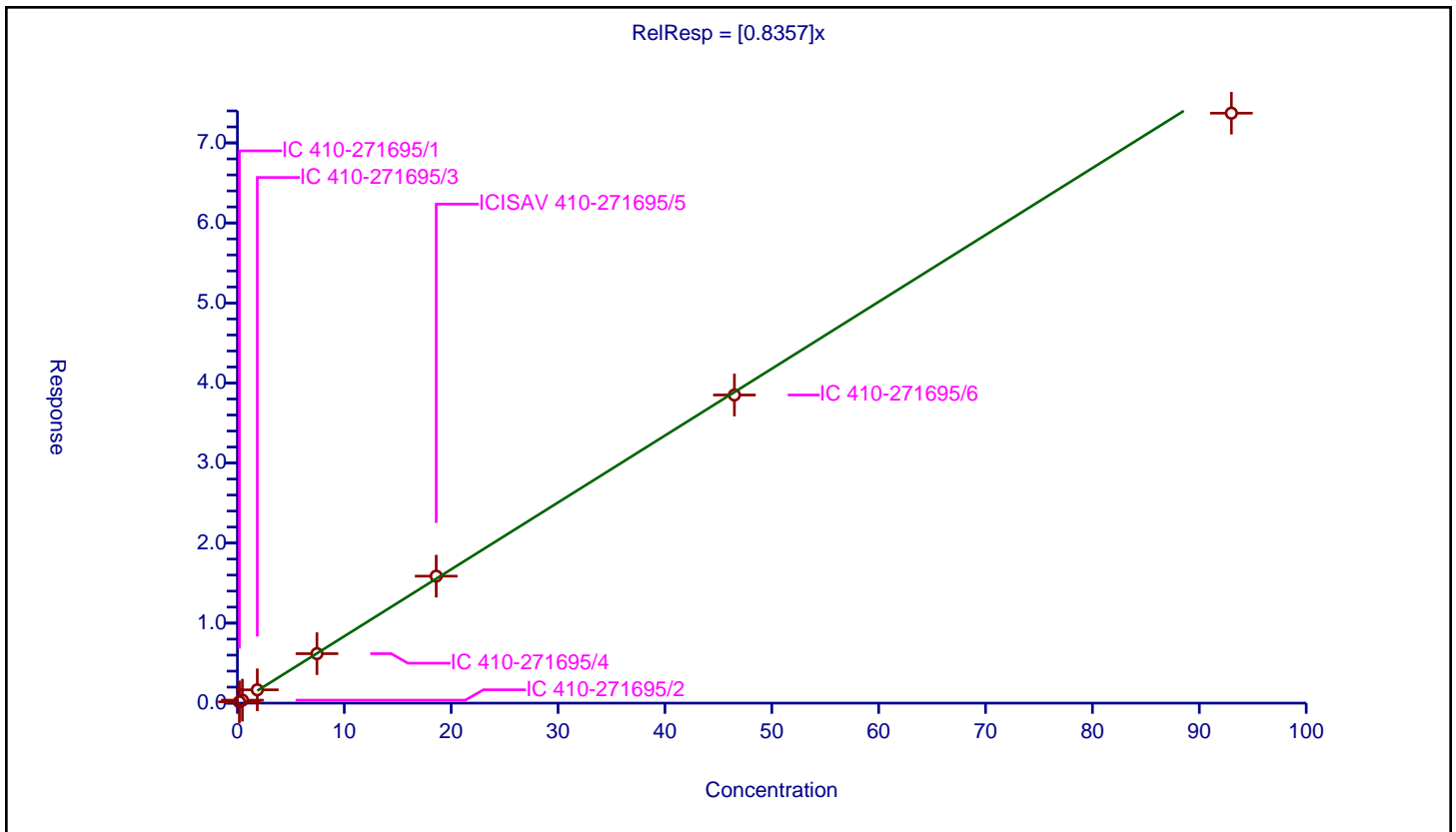
/ 11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.8357

Error Coefficients	
Standard Error:	9480000
Relative Standard Error:	4.3
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.186	0.159376	9.56	2912403.0	0.856859	Y
2	IC 410-271695/2	0.465	0.369622	9.56	3287169.0	0.794885	Y
3	IC 410-271695/3	1.86	1.66233	9.56	2745820.0	0.893726	Y
4	IC 410-271695/4	7.44	6.183018	9.56	2982829.0	0.831051	Y
5	ICISAV 410-271695/5	18.6	15.86417	9.56	2958126.0	0.852912	Y
6	IC 410-271695/6	46.5	38.503071	9.56	2630072.0	0.828023	Y
7	IC 410-271695/7	93.0	73.713412	9.56	2590161.0	0.792617	Y



Calibration

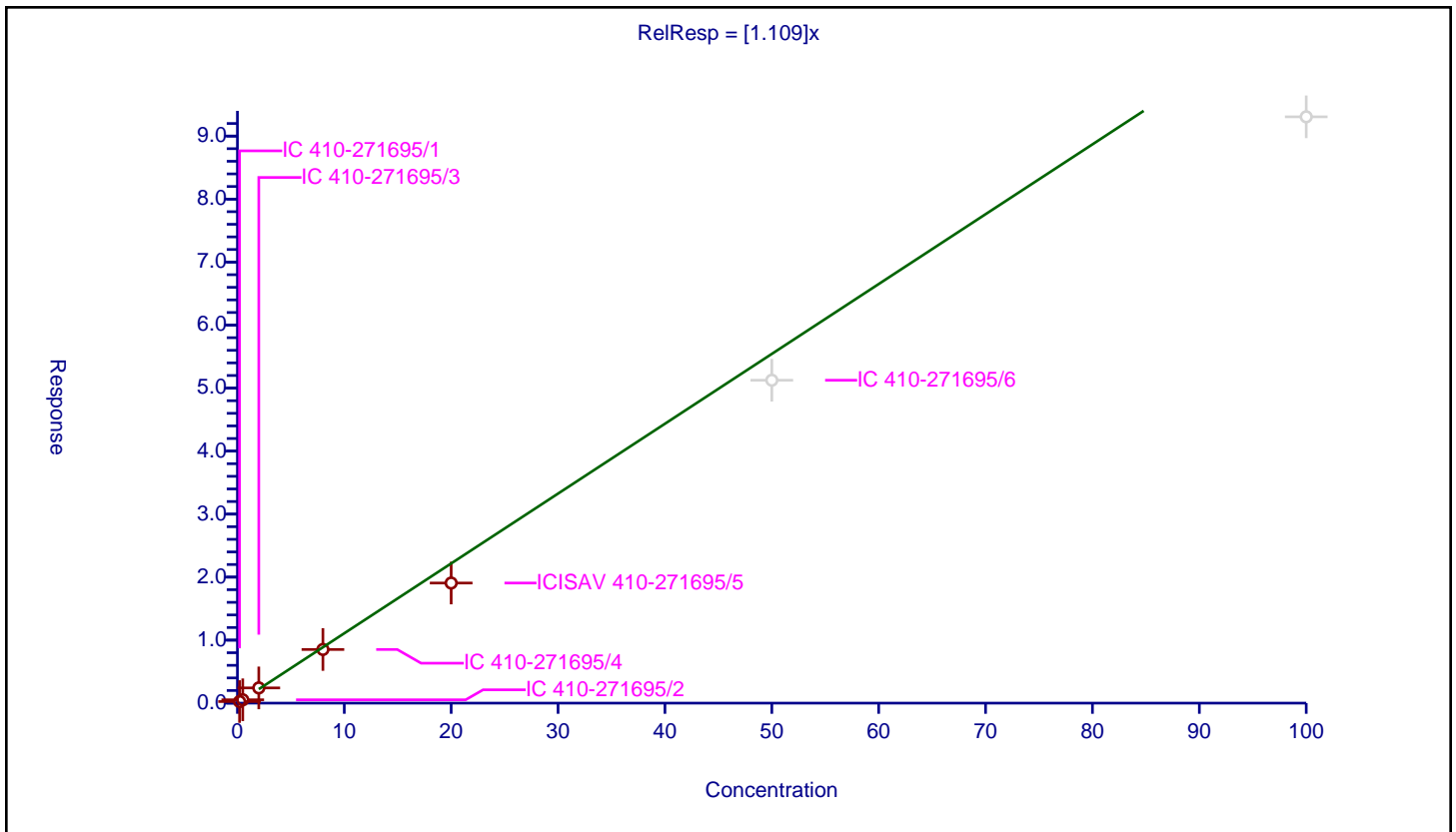
/ 10:2 FTCA

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

Curve Coefficients	
Intercept:	0
Slope:	1.109

Error Coefficients	
Standard Error:	174000
Relative Standard Error:	11.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.251701	10.0	174850.0	1.258507	Y
2	IC 410-271695/2	0.5	0.529404	10.0	179126.0	1.058808	Y
3	IC 410-271695/3	2.0	2.416102	10.0	159778.0	1.208051	Y
4	IC 410-271695/4	8.0	8.514906	10.0	164434.0	1.064363	Y
5	ICISAV 410-271695/5	20.0	19.063826	10.0	165653.0	0.953191	Y
6	IC 410-271695/6	50.0	51.250231	10.0	135255.0	1.025005	N
7	IC 410-271695/7	100.0	93.056339	10.0	121230.0	0.930563	N



Calibration

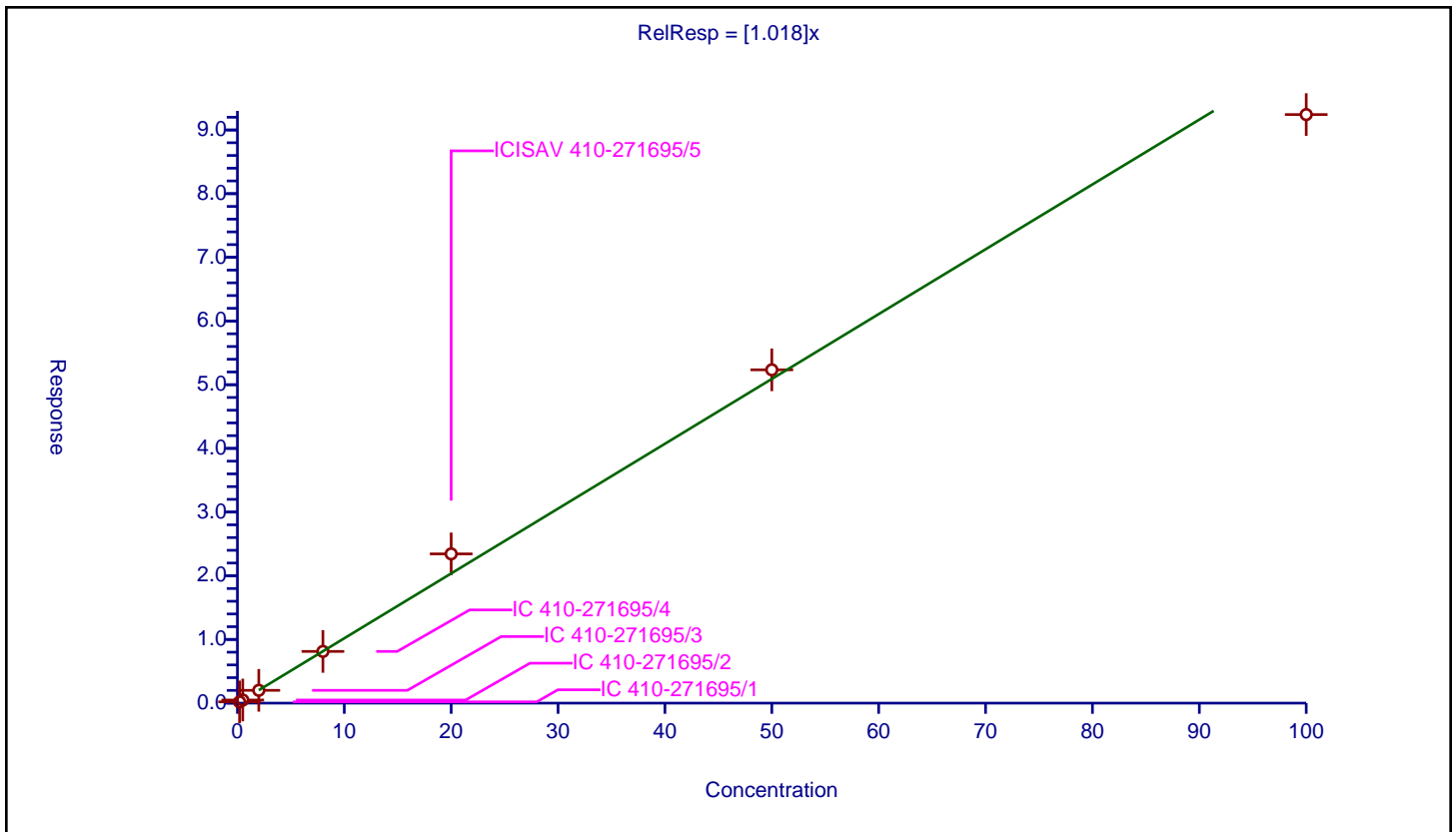
/ Perfluorododecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.018

Error Coefficients	
Standard Error:	3920000
Relative Standard Error:	7.6
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.198745	10.0	936126.0	0.993723	Y
2	IC 410-271695/2	0.5	0.485871	10.0	1066312.0	0.971742	Y
3	IC 410-271695/3	2.0	2.007555	10.0	913295.0	1.003778	Y
4	IC 410-271695/4	8.0	8.118621	10.0	915440.0	1.014828	Y
5	ICISAV 410-271695/5	20.0	23.437509	10.0	900815.0	1.171875	Y
6	IC 410-271695/6	50.0	52.340897	10.0	859568.0	1.046818	Y
7	IC 410-271695/7	100.0	92.424246	10.0	884040.0	0.924242	Y



Calibration

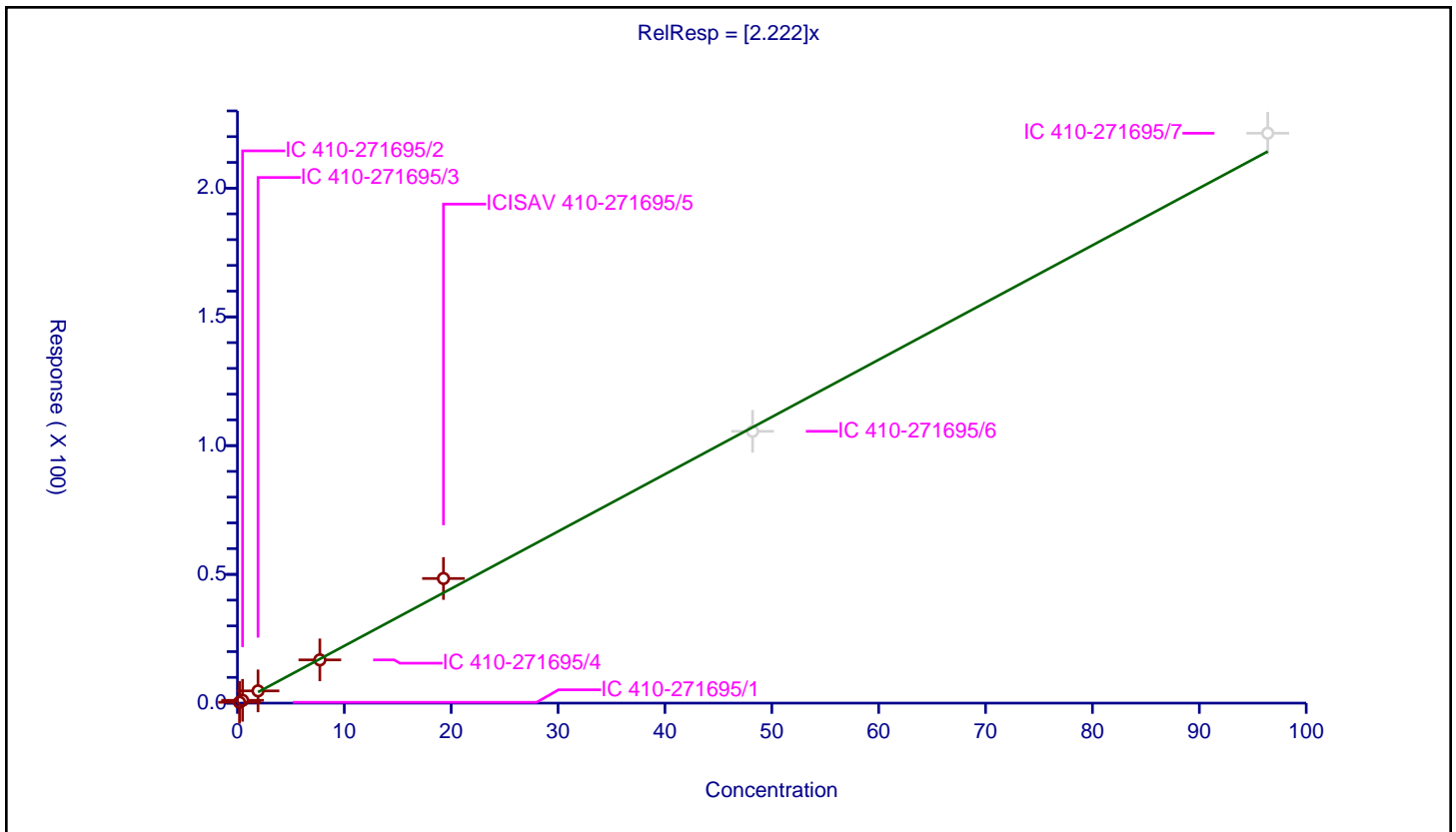
/ 1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)

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

Curve Coefficients	
Intercept:	0
Slope:	2.222

Error Coefficients	
Standard Error:	238000
Relative Standard Error:	14.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.1928	0.328227	9.58	104344.0	1.702421	Y
2	IC 410-271695/2	0.482	1.088394	9.58	100492.0	2.258078	Y
3	IC 410-271695/3	1.928	4.750938	9.58	90744.0	2.46418	Y
4	IC 410-271695/4	7.712	16.788963	9.58	95649.0	2.176992	Y
5	ICISAV 410-271695/5	19.28	48.402763	9.58	87766.0	2.510517	Y
6	IC 410-271695/6	48.2	105.556295	9.58	77490.0	2.189965	N
7	IC 410-271695/7	96.4	221.325605	9.58	65522.0	2.295909	N



Calibration

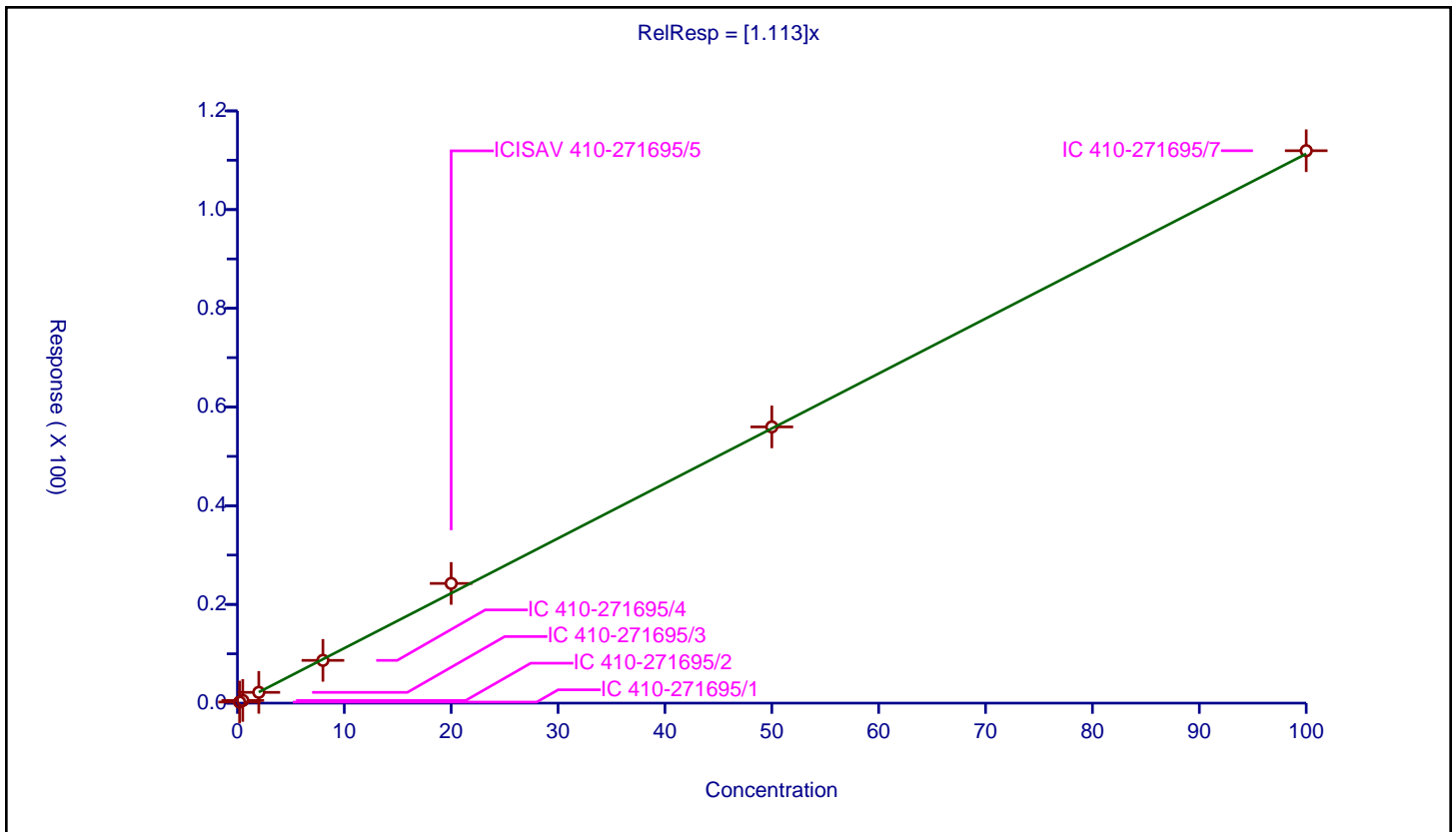
/ 2-(N-methylperfluoro-1-octanesulfonamido) ethanol

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

Curve Coefficients	
Intercept:	0
Slope:	1.113

Error Coefficients	
Standard Error:	2460000
Relative Standard Error:	4.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.217947	10.0	517969.0	1.089737	Y
2	IC 410-271695/2	0.5	0.537496	10.0	593474.0	1.074992	Y
3	IC 410-271695/3	2.0	2.183754	10.0	494978.0	1.091877	Y
4	IC 410-271695/4	8.0	8.665153	10.0	518891.0	1.083144	Y
5	ICISAV 410-271695/5	20.0	24.253995	10.0	510647.0	1.2127	Y
6	IC 410-271695/6	50.0	55.972472	10.0	481834.0	1.119449	Y
7	IC 410-271695/7	100.0	111.933664	10.0	466172.0	1.119337	Y



Calibration

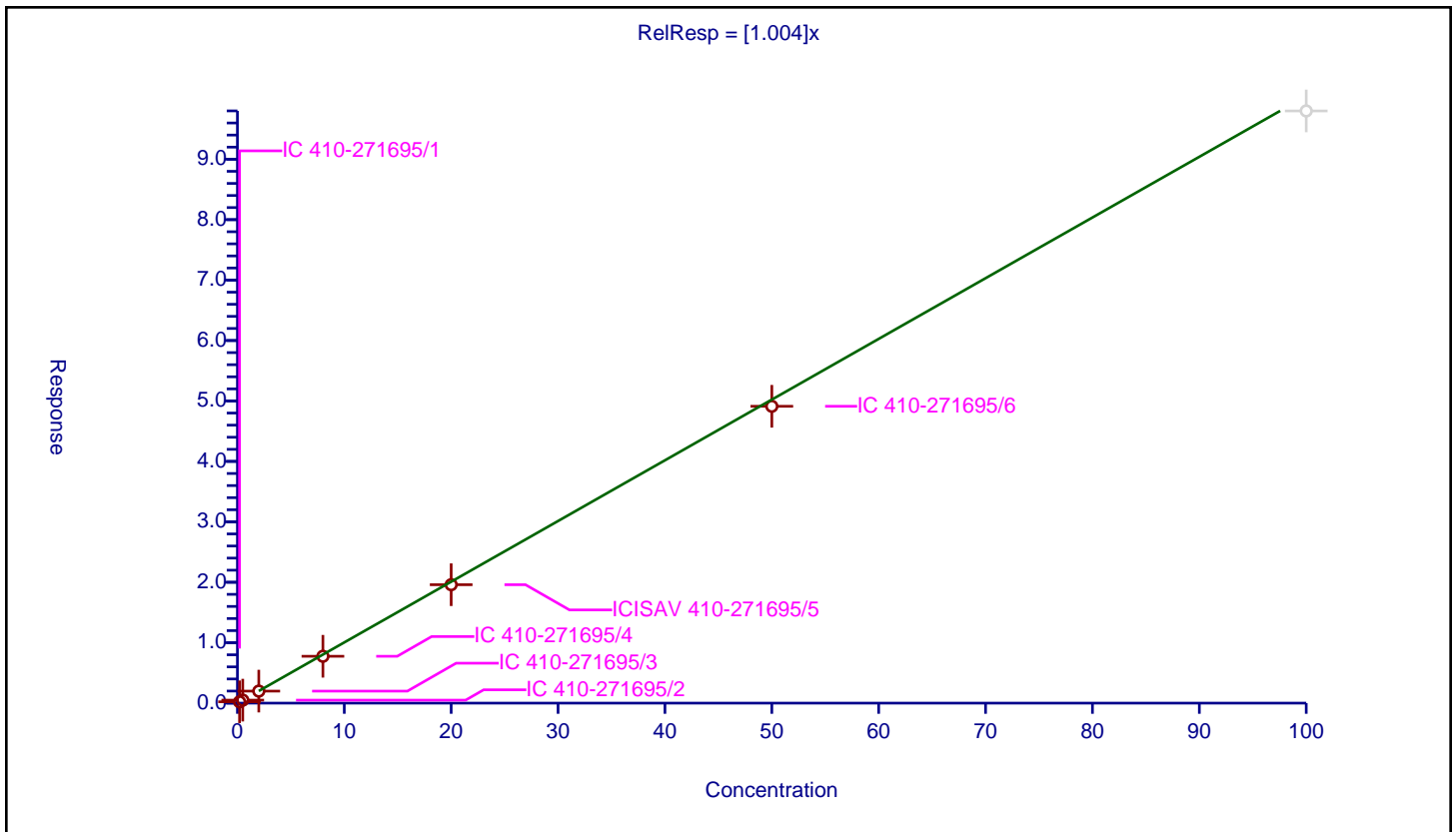
/ NMeFOSA

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

Curve Coefficients	
Intercept:	0
Slope:	1.004

Error Coefficients	
Standard Error:	1460000
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 410-271695/1	0.2	0.221065	10.0	603668.0	1.105326	Y
2	IC 410-271695/2	0.5	0.49776	10.0	659916.0	0.995521	Y
3	IC 410-271695/3	2.0	1.989482	10.0	593079.0	0.994741	Y
4	IC 410-271695/4	8.0	7.752319	10.0	608129.0	0.96904	Y
5	ICISAV 410-271695/5	20.0	19.598457	10.0	639633.0	0.979923	Y
6	IC 410-271695/6	50.0	49.119577	10.0	604982.0	0.982392	Y
7	IC 410-271695/7	100.0	97.992248	10.0	567107.0	0.979922	N



Calibration

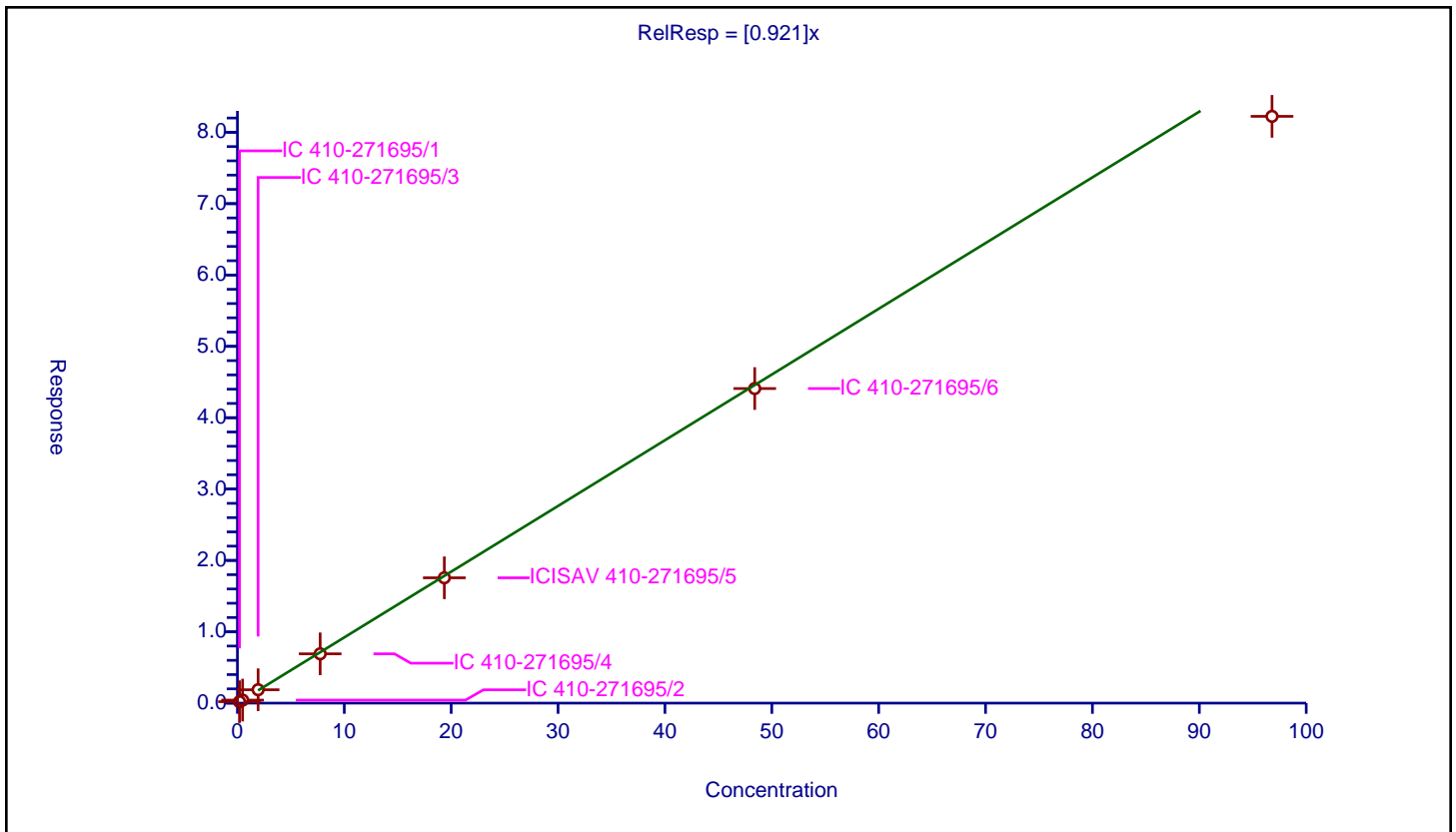
/ Perfluorododecanesulfonic acid (PFDoS)

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

Curve Coefficients	
Intercept:	0
Slope:	0.921

Error Coefficients	
Standard Error:	10600000
Relative Standard Error:	7.1
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.1936	0.20193	9.56	2912403.0	1.043029	Y
2	IC 410-271695/2	0.484	0.423503	9.56	3287169.0	0.875007	Y
3	IC 410-271695/3	1.936	1.876076	9.56	2745820.0	0.969048	Y
4	IC 410-271695/4	7.744	6.911449	9.56	2982829.0	0.892491	Y
5	ICISAV 410-271695/5	19.36	17.564666	9.56	2958126.0	0.907266	Y
6	IC 410-271695/6	48.4	44.088746	9.56	2630072.0	0.910925	Y
7	IC 410-271695/7	96.8	82.23353	9.56	2590161.0	0.84952	Y



Calibration

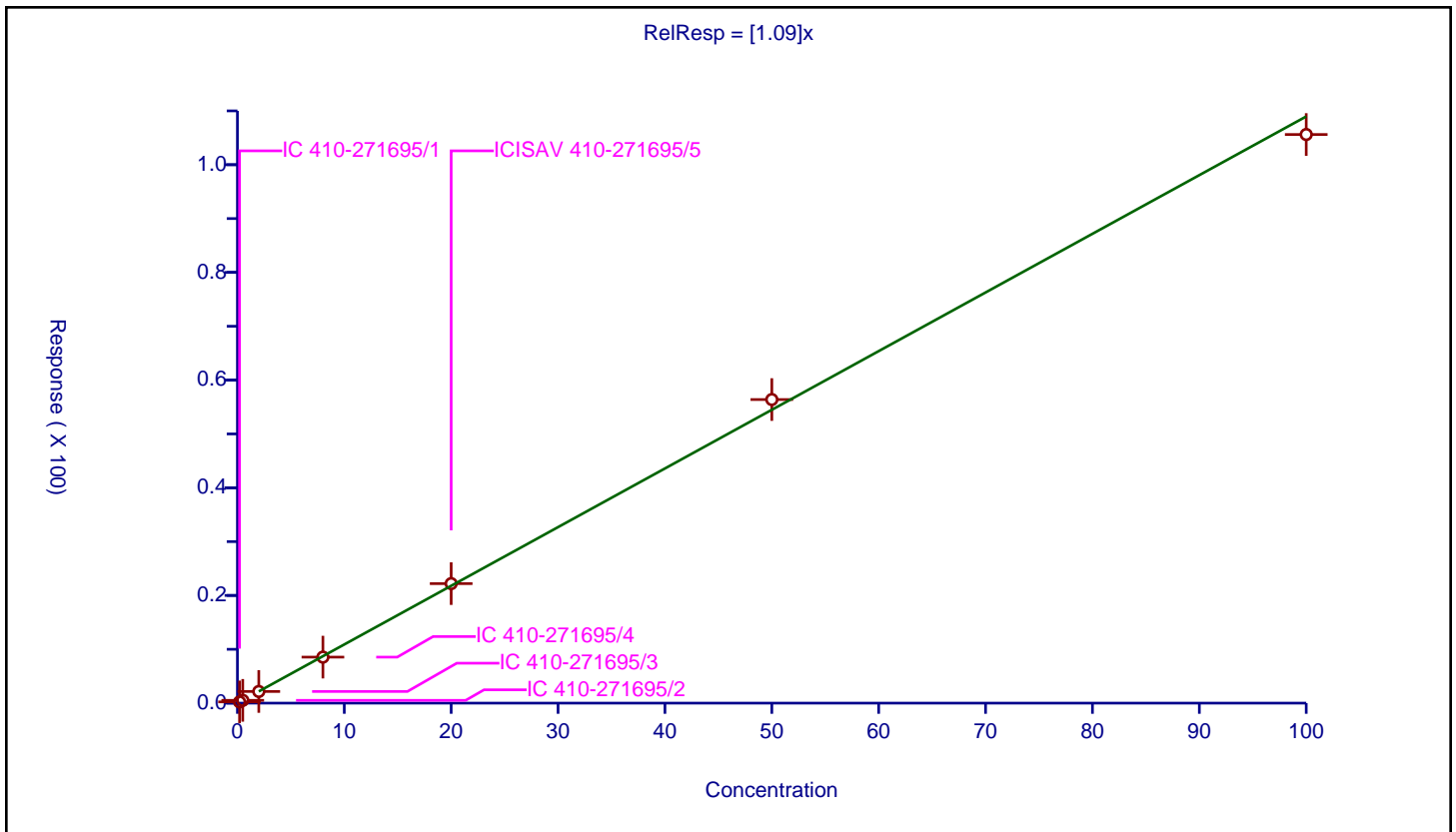
/ 2-(N-ethylperfluoro-1-octanesulfonamido) ethanol

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:	2520000
Relative Standard Error:	3.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.229272	10.0	596890.0	1.146359	Y
2	IC 410-271695/2	0.5	0.517929	10.0	667408.0	1.035858	Y
3	IC 410-271695/3	2.0	2.165842	10.0	528672.0	1.082921	Y
4	IC 410-271695/4	8.0	8.547837	10.0	595057.0	1.06848	Y
5	ICISAV 410-271695/5	20.0	22.196937	10.0	584350.0	1.109847	Y
6	IC 410-271695/6	50.0	56.388093	10.0	493944.0	1.127762	Y
7	IC 410-271695/7	100.0	105.61407	10.0	505512.0	1.056141	Y



Calibration

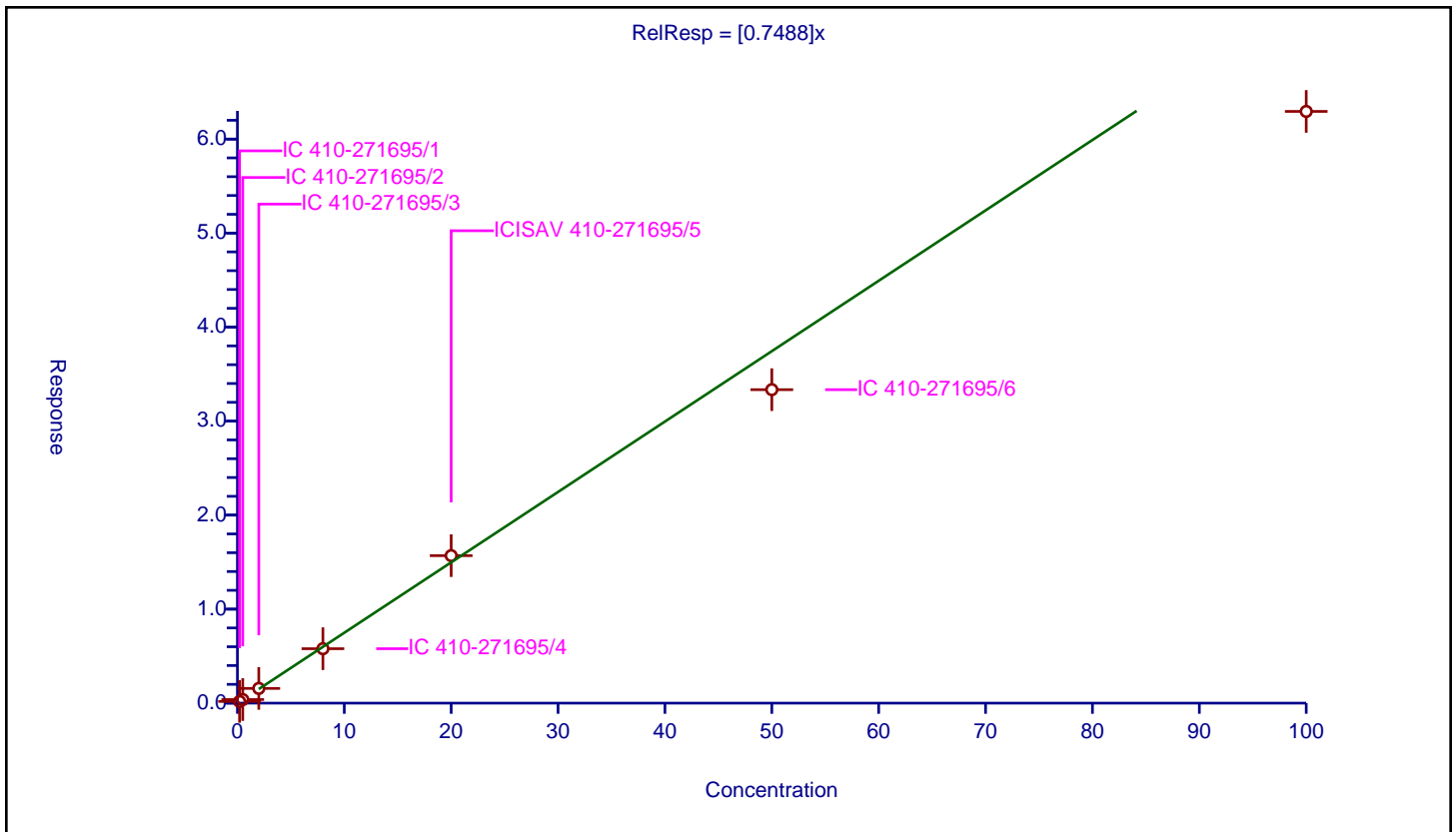
/ Perfluorotridecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.7488

Error Coefficients	
Standard Error:	2630000
Relative Standard Error:	11.6
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.178705	10.0	936126.0	0.893523	Y
2	IC 410-271695/2	0.5	0.380358	10.0	1066312.0	0.760715	Y
3	IC 410-271695/3	2.0	1.565639	10.0	913295.0	0.782819	Y
4	IC 410-271695/4	8.0	5.789118	10.0	915440.0	0.72364	Y
5	ICISAV 410-271695/5	20.0	15.688737	10.0	900815.0	0.784437	Y
6	IC 410-271695/6	50.0	33.346414	10.0	859568.0	0.666928	Y
7	IC 410-271695/7	100.0	62.942095	10.0	884040.0	0.629421	Y



Calibration

/ N-ethylperfluoro-1-octanesulfonamide

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

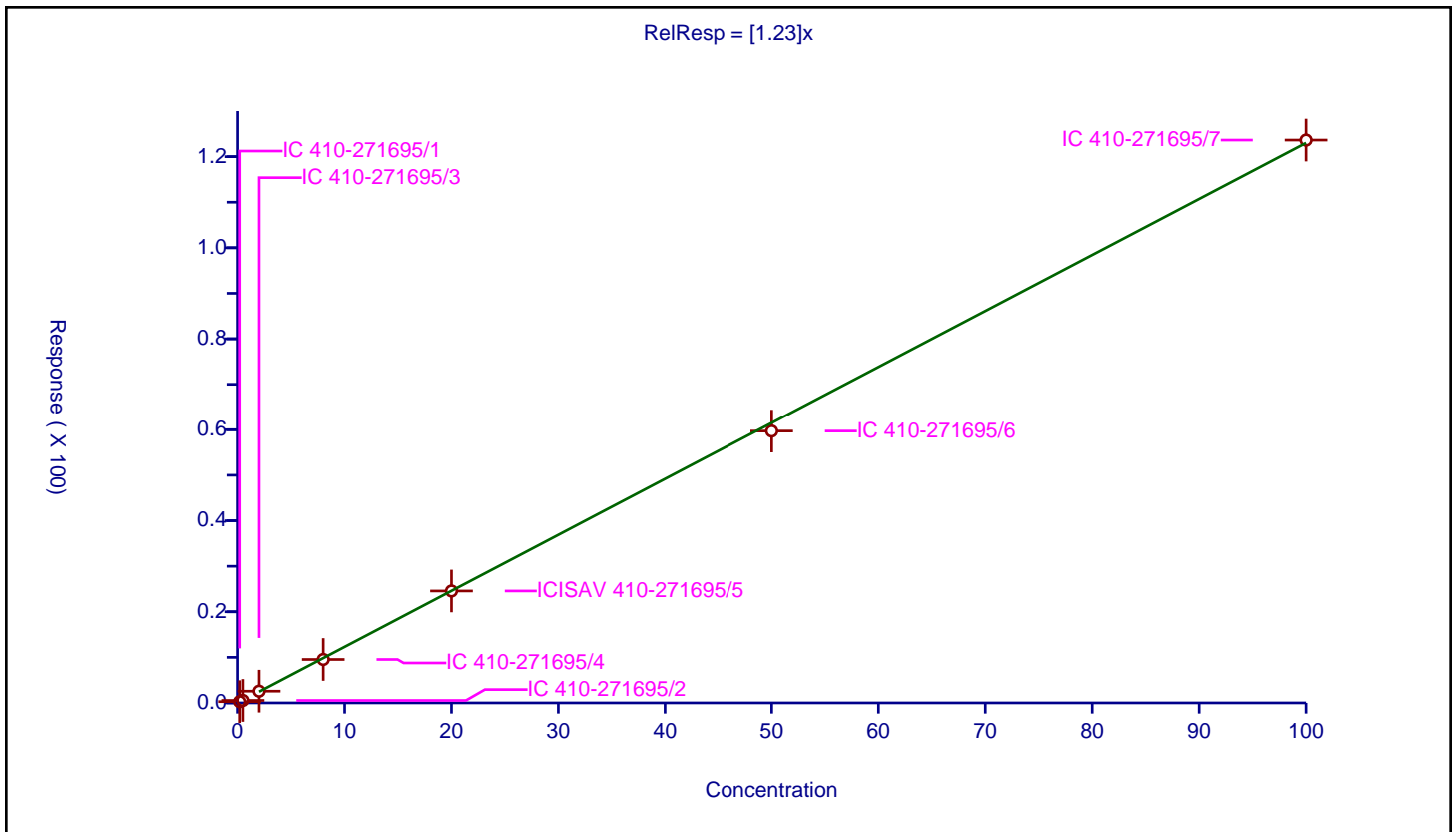
Curve Coefficients

Intercept: 0
 Slope: 1.23

Error Coefficients

Standard Error: 2770000
 Relative Standard Error: 7.6
 Correlation Coefficient: 0.998
 Coefficient of Determination (Adjusted): 0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.277676	10.0	571745.0	1.388381	Y
2	IC 410-271695/2	0.5	0.542253	10.0	598558.0	1.084506	Y
3	IC 410-271695/3	2.0	2.574145	10.0	527717.0	1.287072	Y
4	IC 410-271695/4	8.0	9.53504	10.0	581857.0	1.19188	Y
5	ICISAV 410-271695/5	20.0	24.571688	10.0	565802.0	1.228584	Y
6	IC 410-271695/6	50.0	59.705765	10.0	516764.0	1.194115	Y
7	IC 410-271695/7	100.0	123.6365	10.0	473931.0	1.236365	Y



Calibration

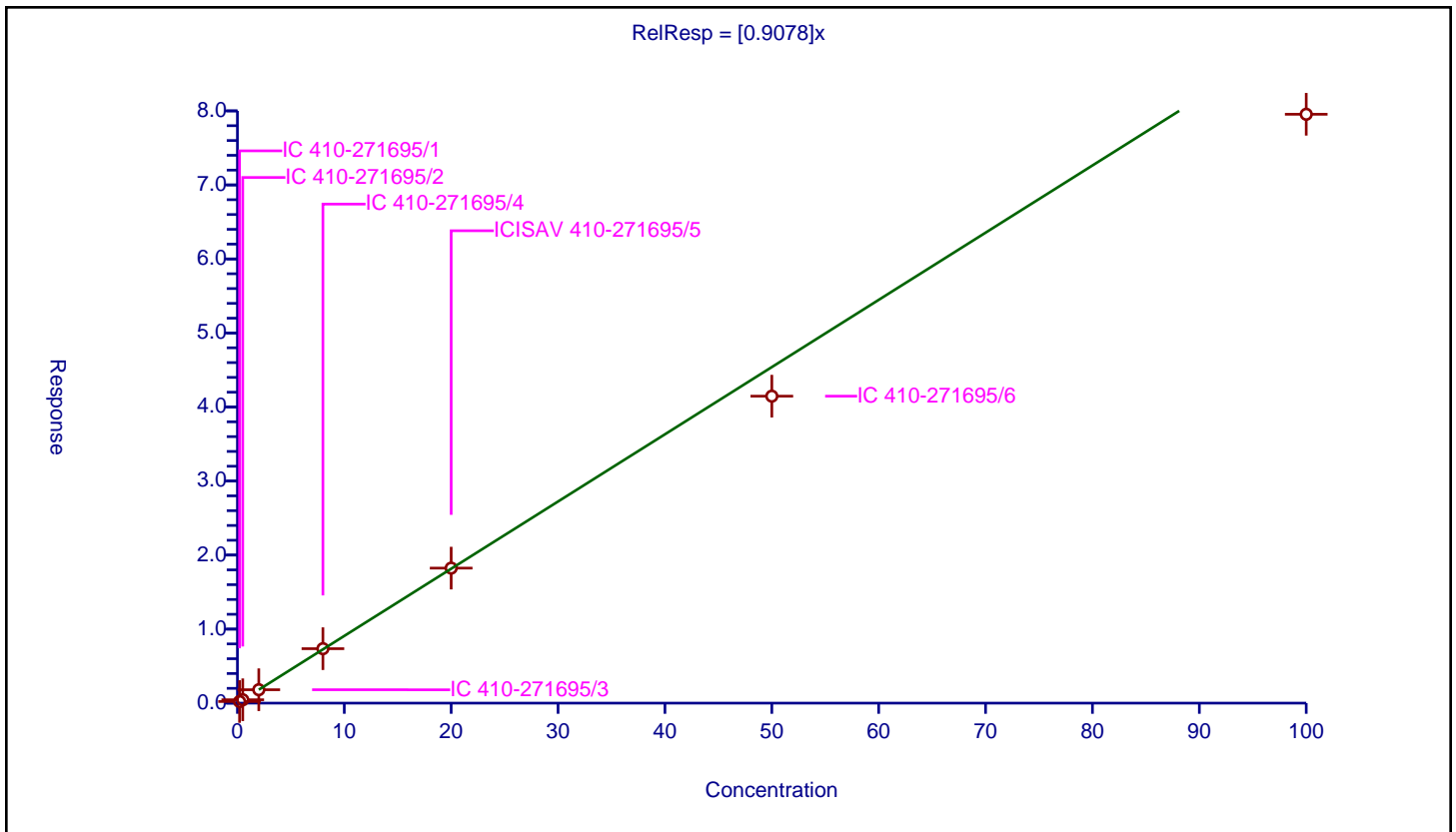
/ Perfluorotetradecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.9078

Error Coefficients	
Standard Error:	2660000
Relative Standard Error:	10.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.216873	10.0	752100.0	1.084364	Y
2	IC 410-271695/2	0.5	0.454625	10.0	810492.0	0.90925	Y
3	IC 410-271695/3	2.0	1.810554	10.0	747180.0	0.905277	Y
4	IC 410-271695/4	8.0	7.354609	10.0	748101.0	0.919326	Y
5	ICISAV 410-271695/5	20.0	18.240181	10.0	766562.0	0.912009	Y
6	IC 410-271695/6	50.0	41.463918	10.0	710443.0	0.829278	Y
7	IC 410-271695/7	100.0	79.5414	10.0	704340.0	0.795414	Y



Calibration

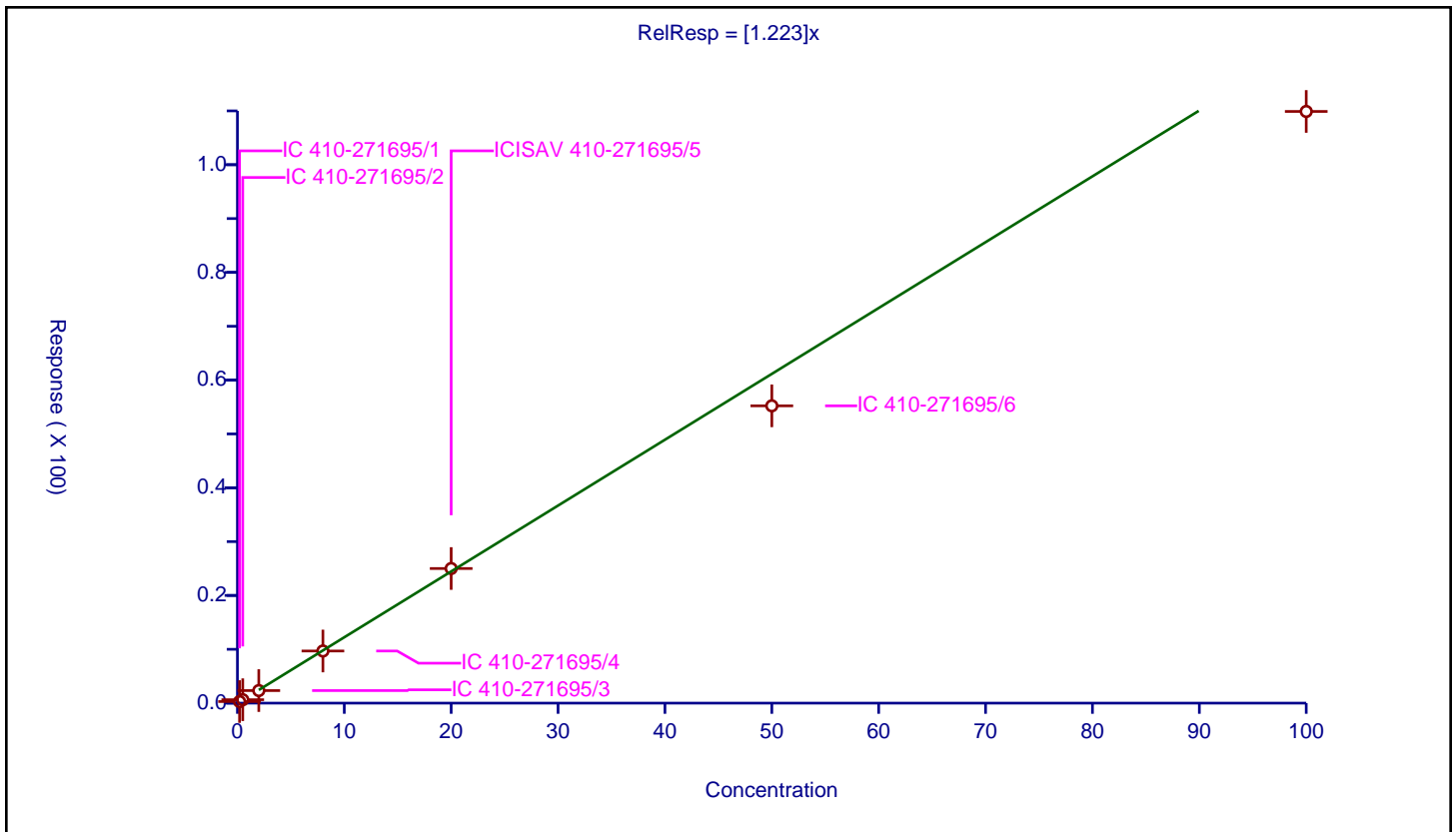
/ Perfluorohexadecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.223

Error Coefficients	
Standard Error:	3640000
Relative Standard Error:	10.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.292115	10.0	752100.0	1.460577	Y
2	IC 410-271695/2	0.5	0.634948	10.0	810492.0	1.269895	Y
3	IC 410-271695/3	2.0	2.333628	10.0	747180.0	1.166814	Y
4	IC 410-271695/4	8.0	9.683906	10.0	748101.0	1.210488	Y
5	ICISAV 410-271695/5	20.0	25.002244	10.0	766562.0	1.250112	Y
6	IC 410-271695/6	50.0	55.220391	10.0	710443.0	1.104408	Y
7	IC 410-271695/7	100.0	109.893815	10.0	704340.0	1.098938	Y



Calibration

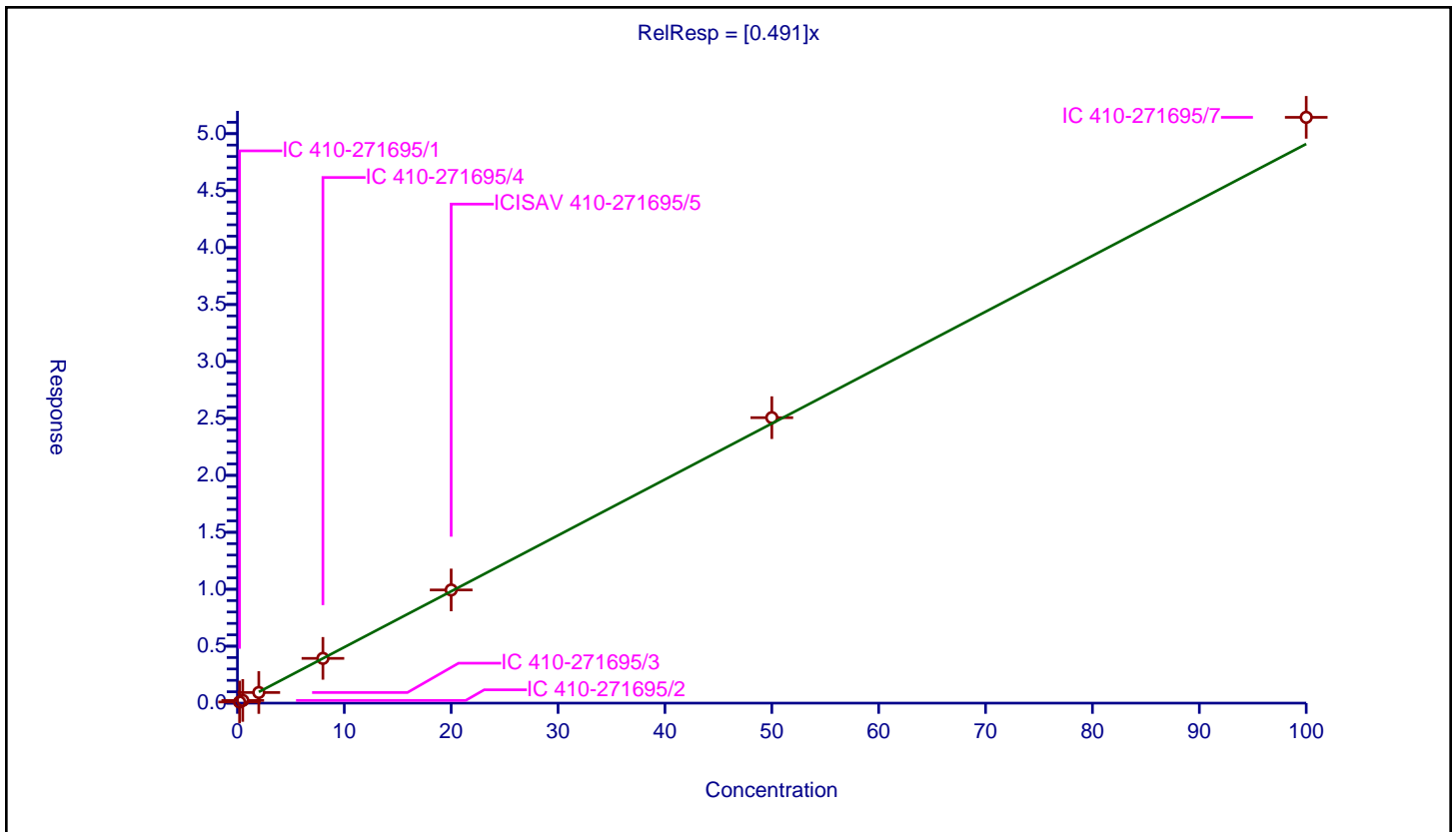
/ Perfluorooctadecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.491

Error Coefficients	
Standard Error:	1680000
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-271695/1	0.2	0.098936	10.0	752100.0	0.494682	Y
2	IC 410-271695/2	0.5	0.235955	10.0	810492.0	0.471911	Y
3	IC 410-271695/3	2.0	0.932854	10.0	747180.0	0.466427	Y
4	IC 410-271695/4	8.0	3.929229	10.0	748101.0	0.491154	Y
5	ICISAV 410-271695/5	20.0	9.93643	10.0	766562.0	0.496822	Y
6	IC 410-271695/6	50.0	25.065769	10.0	710443.0	0.501315	Y
7	IC 410-271695/7	100.0	51.434478	10.0	704340.0	0.514345	Y



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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-272051/1	22JUL04XMCAL-01.d
Level 2	IC 410-272051/2	22JUL04XMCAL-02.d
Level 3	IC 410-272051/3	22JUL04XMCAL-03.d
Level 4	IC 410-272051/4	22JUL04XMCAL-04.d
Level 5	ICISAV 410-272051/5	22JUL04XMCAL-05.d
Level 6	IC 410-272051/6	22JUL04XMCAL-06.d
Level 7	IC 410-272051/7	22JUL04XMCAL-07.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															
MTP	0.0671 0.0754	0.0625 0.0759	0.0663	0.0681	0.0690	AveI D	0.069 2				7.0		20.0				
PPF Acid	0.4492 0.4597	0.4209 0.4544	0.4155	0.4248	0.4438	AveI D	0.438 3				4.0		20.0				
PFMOAA	0.2132 0.2256	0.1964 0.2256	0.1972	0.1992	0.2004	AveI D	0.208 2				6.3		20.0				
Perfluorobutanoic acid	1.0025 0.9166	0.9509 0.9016	0.9709	0.9212	0.9728	AveI D	0.948 1				3.8		20.0				
R-EVE	0.1636 0.1826	0.1438 0.1666	0.1497	0.1565	0.1591	AveI D	0.160 3				7.8		20.0				
R-PSDA	0.0264 0.0308	0.0252 0.0304	0.0250	0.0248	0.0260	AveI D	0.026 9				9.5		20.0				
Hydrolyzed PSDA	0.1652 0.1855	0.1593 0.1698	0.1698	0.1624	0.1712	AveI D	0.169 0				5.0		20.0				
PMPA	0.4787 0.5034	0.4519 0.4627	0.4573	0.4630	0.4589	AveI D	0.468 0				3.8		20.0				
Perfluoropropanesulfonic acid	0.4339 0.4672	0.4105 0.4597	0.4480	0.4889	0.4557	AveI D	0.452 0				5.5		20.0				
NVHOS	0.2914 0.2711	0.2532 0.2654	0.2569	0.2707	0.2741	AveI D	0.269 0				4.7		20.0				
PFECA F	1.0794 1.0654	0.9995 0.9410	1.0626	1.0515	1.0267	AveI D	1.032 3				4.7		20.0				
PFO2HxA	0.3420 0.3438	0.2940 0.3389	0.3086	0.3142	0.3073	AveI D	0.321 3				6.2		20.0				
3:3 FTCA	0.0921 0.0684	0.0649 0.0657	0.0688	0.0701	0.0696	AveI D	0.071 4				13.1		20.0				

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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															
Perfluoropentanoic acid	1.3123 0.9771	1.0251 0.9483	1.1454	0.9868	1.0722	AveI D		1.066 8			11.9		20.0				
Perfluorobutanesulfonic acid	1.0317 1.0737	1.0407 0.9571	1.0684	1.0172	1.0430	AveI D		1.033 1			3.8		20.0				
PEPA	0.2181 0.2145	0.1993 0.1895	0.2076	0.1998	0.2112	AveI D		0.205 7			4.9		20.0				
PFECA A	0.6281 0.5819	0.5558 0.5430	0.5847	0.5194	0.5440	AveI D		0.565 3			6.4		20.0				
Perfluoro (2-ethoxyethane) sulfonic acid	2.6436 2.3831	2.4230 2.3709	2.5421	2.4817	2.2411	AveI D		2.440 8			5.3		20.0				
PFECA B	0.7464 0.7490	0.6573 0.6597	0.7880	0.6951	0.7073	AveI D		0.714 7			6.8		20.0				
4:2 Fluorotelomer sulfonic acid	2.3162 2.5687	2.2485 2.6261	2.8333	2.4037	2.4729	AveI D		2.495 6			8.0		20.0				
Perfluorohexanoic acid	0.9016 0.8468	0.9174 0.8585	0.9462	0.8250	0.9267	AveI D		0.888 9			5.1		20.0				
Perfluoropentanesulfonic acid	0.9943 0.9694	0.8756 0.8951	0.9858	0.8942	0.9325	AveI D		0.935 3			5.2		20.0				
PFO3OA	0.4490 0.4461	0.3929 0.4104	0.4015	0.4577	0.3920	AveI D		0.421 4			6.8		20.0				
HFPODA	0.6798 0.8605	0.8340 0.7832	0.8421	0.8199	0.8800	AveI D		0.814 2			8.2		20.0				
Hydro-EVE Acid	2.0794 2.3311	2.0488 2.0618	2.0155	2.2268	2.2500	AveI D		2.144 8			5.7		20.0				
R-PSDCA	2.1008 2.2260	2.2131 1.9076	2.0891	1.8526	2.0070	AveI D		2.056 6			6.9		20.0				
Hydro-PS Acid	1.5505 1.6566	1.3865 1.5440	1.4405	1.4305	1.5245	AveI D		1.504 7			6.1		20.0				
Perfluoroheptanoic acid	1.1550 1.0542	1.0618 1.0341	1.0732	0.9515	1.0831	AveI D		1.059 0			5.7		20.0				
Perfluorohexanesulfonic acid	1.1165 1.1001	1.1381 1.0968	1.0831	1.0435	1.1141	AveI D		1.098 9			2.7		20.0				
DONA	1.5167 1.6100	1.6332 1.7085	1.6218	1.5467	1.8412	AveI D		1.639 7			6.6		20.0				
PFECA G	2.6293 2.4207	2.3363 2.0976	2.5892	2.5428	2.4610	AveI D		2.439 6			7.4		20.0				

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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															
5:3 FTCA	0.2312 0.2128	0.2042 0.2173	0.2009	0.1984	0.2265	AveI D	0.213 0				6.0		20.0				
6:2 FTUCA	1.1834 1.1091	1.1514 1.1076	1.2280	1.0657	1.2173	AveI D	1.151 8				5.3		20.0				
6:2 FTCA	1.2258 0.9850	0.9548 1.0089	1.2326	0.9410	1.0383	AveI D	1.055 2				11.7		20.0				
PFO4DA	0.6465 0.7391	0.7600 0.7097	0.7254	0.7890	0.7108	AveI D	0.725 8				6.2		20.0				
PS Acid	0.5611 0.5638	0.5233 0.4861	0.5350	0.5182	0.5353	AveI D	0.531 8				5.0		20.0				
EVE Acid	1.8287 1.9124	1.7788 1.5517	2.0349	1.8523	1.7976	AveI D	1.822 3				8.1		20.0				
Perfluoro-4-ethylcyclohexanesulfonic acid	0.9584 1.2700	1.0269 1.1852	1.0284	1.0578	1.1216	AveI D	1.092 6				9.8		20.0				
6:2 Fluorotelomer sulfonic acid	2.3466 2.3285	2.5570 2.3580	2.7118	2.1926	2.7149	AveI D	2.458 5				8.3		20.0				
Perfluoroheptanesulfonic acid	0.9473 1.0327	0.9417 1.0281	0.9770	1.0479	1.1005	AveI D	1.010 8				5.7		20.0				
Perfluorooctanoic acid	1.2154 0.9831	1.0487 1.0082	1.1070	0.9503	1.0642	AveI D	1.053 8				8.4		20.0				
TAF	0.8148 0.8934	0.7613 0.7433	0.7802	0.7791	0.7810	AveI D	0.793 3				6.2		20.0				
Perfluorooctanesulfonic acid	1.0309 1.1108	1.0668 1.0556	1.1526	1.0643	1.1468	AveI D	1.089 7				4.3		20.0				
Perfluorononanoic acid	1.0226 0.9745	0.9569 0.9374	1.0936	0.9981	1.0629	AveI D	1.006 5				5.6		20.0				
7:3 FTCA	1.8622 2.1160	1.8927 2.1102	2.5436	2.1964	2.3054	AveI D	2.146 6				11.0		20.0				
8:2 FTUCA	1.1604 ++++	0.9284 ++++	1.2939	1.0093	1.0418	AveI D	1.086 8				13.1		20.0				
8:2 FTCA	1.0888 1.0184	1.1744 0.9683	1.0964	1.0805	0.9610	AveI D	1.055 4				7.3		20.0				
9Cl-PF3ONS	0.9958 1.1800	1.0526 1.1242	1.0779	1.0423	1.1755	AveI D	1.092 6				6.4		20.0				
Perfluorononanesulfonic acid	1.1267 1.1638	1.0879 1.0442	1.1203	1.1030	1.0930	AveI D	1.105 6				3.4		20.0				

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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 Fluorotelomer sulfonic acid	3.2496 3.4119	3.1086 2.9188	3.3511	2.9101	2.8301	AveI D		3.111 5			7.5		20.0				
Perfluorodecanoic acid	1.2106 0.9952	1.0182 0.9236	1.0620	0.9861	1.0671	AveI D		1.037 5			8.7		20.0				
Perfluorooctanesulfonamide	1.0918 1.0339	1.0246 1.0010	1.2365	1.0023	1.0668	AveI D		1.065 3			7.7		20.0				
NMeFOSAA	1.0447 0.9031	0.8987 0.8749	0.9398	0.7605	0.9508	AveI D		0.910 4			9.5		20.0				
Perfluorodecanesulfonic acid	1.0705 1.1674	1.0738 0.9847	1.1343	1.0420	1.0841	AveI D		1.079 5			5.5		20.0				
Perfluoroundecanoic acid	0.8982 0.9453	0.9993 0.8725	1.1177	0.8777	1.0020	AveI D		0.959 0			9.2		20.0				
NEtFOSAA	0.7957 0.8476	0.6835 0.8258	0.8370	0.7186	0.7650	AveI D		0.781 9			8.0		20.0				
10:2 FTUCA	1.0301 0.8368	0.8840 0.8970	0.9402	0.8827	0.8080	AveI D		0.897 0			8.1		20.0				
11Cl-PF3OUdS	0.8982 0.8913	0.9425 0.8416	0.8862	0.7977	0.8161	AveI D		0.867 7			5.9		20.0				
10:2 FTCA	1.4574 1.0124	0.8444 1.0306	1.0374	1.0128	0.8819	AveI D		1.039 5			19.2		20.0				
Perfluorododecanoic acid	1.0612 1.0336	0.9366 0.9761	1.1529	1.0864	1.0823	AveI D		1.047 0			6.9		20.0				
10:2 FTS	2.8808 2.3780	2.6462 2.2771	2.7777	2.4288	2.3356	AveI D		2.532 0			9.3		20.0				
NMeFOSE	0.9774 0.9262	1.1070 1.1044	1.1849	1.1000	1.0670	AveI D		1.066 7			8.2		20.0				
NMeFOSA	1.3071 1.0357	1.0115 0.9208	1.0337	0.9534	0.9735	AveI D		1.033 7			12.4		20.0				
Perfluorododecanesulfonic acid	1.0388 0.9244	0.9391 0.9129	0.9420	0.9508	0.8939	AveI D		0.943 1			4.9		20.0				
NEtFOSE	1.2388 1.0522	1.0632 1.0939	1.1340	0.9387	1.1351	AveI D		1.093 7			8.4		20.0				
Perfluorotridecanoic acid	0.6874 0.7605	0.6998 0.6349	0.8566	0.8065	0.7407	AveI D		0.740 9			10.1		20.0				
NEtFOSA	1.2334 1.2077	1.2006 1.1719	1.2551	1.2014	1.2884	AveI D		1.222 6			3.2		20.0				

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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															
Perfluorotetradecanoic acid	1.0512 0.8246	0.8561 0.8244	0.9617	0.8457	0.8506	AveI D		0.887 8			9.7		20.0				
Perfluorohexadecanoic acid	1.3740 1.1152	1.3268 1.1068	1.3245	1.2128	1.2090	AveI D		1.238 4			8.6		20.0				
Perfluorooctadecanoic acid	0.4885 0.4880	0.4566 0.5218	0.4915	0.4480	0.4659	AveI D		0.480 1			5.2		20.0				
13C4 PFBA	1.1782 1.0796	1.1529 1.0916	1.1291	1.1152	1.0804	Ave		1.118 2			3.4		20.0				
13C5 PFPeA	1.0004 0.9827	0.9864 0.9922	0.9808	1.0066	0.9008	Ave		0.978 6			3.6		20.0				
13C3 PFBS	1.9802 1.9004	2.0158 1.8579	1.9233	2.0006	1.9134	Ave		1.941 6			3.0		20.0				
M2-4:2 FTS	0.0781 0.0766	0.0732 0.0728	0.0708	0.0782	0.0811	Ave		0.075 8			4.8		20.0				
13C5 PFHxA	1.2982 1.2101	1.2012 1.2696	1.1147	1.1496	1.1818	Ave		1.203 6			5.3		20.0				
13C3 HFPO-DA	0.3521 0.3597	0.3484 0.4255	0.3236	0.3561	0.3501	Ave		0.359 3			8.7		20.0				
13C4 PFHpA	1.3135 1.0851	1.1554 1.0383	1.1263	1.2070	1.0793	Ave		1.143 5			8.1		20.0				
13C3 PFHxS	1.7752 1.4604	1.5241 1.5120	1.5166	1.5511	1.5438	Ave		1.554 8			6.5		20.0				
13C2-2H-Perfluoro-2-octenoic acid	1.2689 1.1287	1.2164 1.1218	1.1276	1.2890	1.1665	Ave		1.188 4			5.9		20.0				
13C2-2-Perfluorohexylethanoic acid	0.1260 0.1287	0.1336 0.1262	0.1112	0.1287	0.1181	Ave		0.124 6			6.0		20.0				
M2-6:2 FTS	0.0503 0.0499	0.0467 0.0497	0.0437	0.0511	0.0493	Ave		0.048 7			5.3		20.0				
13C8 PFOA	1.0449 0.9730	1.0322 0.9611	0.9579	1.0362	1.0200	Ave		1.003 6			3.8		20.0				
13C8 PFOS	1.1037 0.9286	1.0189 1.0318	1.0128	1.0269	1.0019	Ave		1.017 8			5.1		20.0				
13C9 PFNA	0.7807 0.6344	0.7418 0.6266	0.6486	0.7034	0.6406	Ave		0.682 3			8.9		20.0				
13C2-2H-Perfluoro-2-decenoic acid	1.0432 +++++	1.2695 +++++	0.9962	0.9405	0.8896	Ave		1.027 8			14.3		20.0				

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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															
13C2-2-Perfluorooctylethanoic acid	0.1023 0.0853	0.1047 0.0896	0.1039	0.0873	0.0905	Ave		0.094 8			8.9		20.0				
13C6 PFDA	0.9848 0.9290	1.0419 0.9925	1.0029	0.9568	0.9515	Ave		0.979 9			3.8		20.0				
M2-8:2 FTS	0.0385 0.0328	0.0426 0.0373	0.0405	0.0393	0.0379	Ave		0.038 4			8.0		20.0				
13C8 FOSA	2.2069 2.0536	2.3487 2.2029	2.0684	2.2796	2.2493	Ave		2.201 3			4.9		20.0				
d3-NMeFOSAA	0.3656 0.3551	0.4051 0.3778	0.3854	0.3913	0.3747	Ave		0.379 3			4.4		20.0				
13C7 PFUnA	0.7703 0.6576	0.7641 0.7230	0.6696	0.7228	0.6984	Ave		0.715 1			6.0		20.0				
d5-NEtFOSAA	0.3161 0.2854	0.3487 0.2913	0.3364	0.3205	0.3494	Ave		0.321 1			8.0		20.0				
13C2-2H-Perfluoro-2-dodecenoic acid	0.9604 0.8272	1.1004 0.8266	1.0189	0.9374	0.9898	Ave		0.951 5			10.5		20.0				
13C2-2-Perfluorodecylethanoic acid	0.0855 0.0684	0.1051 0.0664	0.0818	0.0799	0.0817	Ave		0.081 3			15.7		20.0				
13C2-PFDoDA	0.4695 0.4240	0.5229 0.4860	0.4488	0.4133	0.4522	Ave		0.459 5			8.1		20.0				
d7-N-MeFOSE-M	0.2750 0.2813	0.2952 0.2840	0.2740	0.2460	0.2694	Ave		0.275 0			5.6		20.0				
d3-NMePFOSA	0.3010 0.2957	0.3417 0.3547	0.3101	0.3105	0.3129	Ave		0.318 1			6.8		20.0				
d9-N-EtFOSE-M	0.3061 0.2714	0.3185 0.2988	0.2960	0.3005	0.2639	Ave		0.293 6			6.6		20.0				
d5-NEtPFOSA	0.2921 0.2561	0.3110 0.2841	0.2875	0.2701	0.2746	Ave		0.282 2			6.2		20.0				
13C2 PFTeDA	0.4168 0.3742	0.4301 0.4117	0.4025	0.3811	0.3929	Ave		0.401 3			5.0		20.0				

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

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-272051/1	22JUL04XMCAL-01.d
Level 2	IC 410-272051/2	22JUL04XMCAL-02.d
Level 3	IC 410-272051/3	22JUL04XMCAL-03.d
Level 4	IC 410-272051/4	22JUL04XMCAL-04.d
Level 5	ICISAV 410-272051/5	22JUL04XMCAL-05.d
Level 6	IC 410-272051/6	22JUL04XMCAL-06.d
Level 7	IC 410-272051/7	22JUL04XMCAL-07.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			
MTP		AveI	2819	6679	25414	101586	254265	0.200	0.500	2.00	8.00	20.0
		D	639792	1223832				50.0	100			
PPF Acid		AveI	18876	44986	159247	633317	1635978	0.200	0.500	2.00	8.00	20.0
		D	3899772	7328094				50.0	100			
PFMOAA		AveI	8960	20986	75566	297008	738542	0.200	0.500	2.00	8.00	20.0
		D	1914079	3638838				50.0	100			
Perfluorobutanoic acid		AveI	42127	101622	372115	1373544	3585938	0.200	0.500	2.00	8.00	20.0
		D	7776346	14539352				50.0	100			
R-EVE		AveI	6873	15368	57393	233305	586494	0.200	0.500	2.00	8.00	20.0
		D	1548787	2686179				50.0	100			
R-PSDA		AveI	1862	4713	16299	66422	170026	0.200	0.500	2.00	8.00	20.0
		D	459645	834418				50.0	100			
Hydrolyzed PSDA		AveI	11669	29775	110853	434262	1117428	0.200	0.500	2.00	8.00	20.0
		D	2769530	4661283				50.0	100			
PMPA		AveI	20116	48297	175286	690388	1691708	0.200	0.500	2.00	8.00	20.0
		D	4270426	7461773				50.0	100			
Perfluoropropanesulfonic acid		AveI	16704	40182	157305	667706	1538552	0.183	0.458	1.83	7.33	18.3
		D	3630993	6790555				45.8	91.6			

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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
NVHOS		AveI D	20579	47305	167705	724077	1789394	0.200	0.500	2.00	8.00	20.0
			4048869	7285089				50.0	100			
PFECA F		AveI D	45360	106820	407279	1567742	3784575	0.200	0.500	2.00	8.00	20.0
			9038202	15174886				50.0	100			
PFO2HxA		AveI D	14370	31425	118287	468514	1132649	0.200	0.500	2.00	8.00	20.0
			2916859	5465500				50.0	100			
3:3 FTCA		AveI D	3287	5931	22908	94374	213784	0.200	0.500	2.00	8.00	20.0
			528274	962852				50.0	100			
Perfluoropentanoic acid		AveI D	46825	93737	381351	1327994	3295197	0.200	0.500	2.00	8.00	20.0
			7545933	13899440				50.0	100			
Perfluorobutanesulfonic acid		AveI D	64491	172107	617318	2407776	6025507	0.177	0.443	1.77	7.08	17.7
			14190713	23249210				44.3	88.5			
PEPA		AveI D	9164	21302	79557	297898	778568	0.200	0.500	2.00	8.00	20.0
			1819594	3056719				50.0	100			
PFECA A		AveI D	44360	103861	381758	1389193	3551021	0.200	0.500	2.00	8.00	20.0
			8689920	14904336				50.0	100			
Perfluoro (2-ethoxyethane) sulfonic acid		AveI D	166182	402947	1477103	5907287	13020759	0.178	0.445	1.78	7.12	17.8
			31673499	57917021				44.5	89.0			
PFECA B		AveI D	52716	122817	514479	1859215	4617400	0.200	0.500	2.00	8.00	20.0
			11186156	18106291				50.0	100			
4:2 Fluorotelomer sulfonic acid		AveI D	7284	17817	80174	284779	739119	0.187	0.467	1.87	7.47	18.7
			1730490	2770265				46.7	93.4			
Perfluorohexanoic acid		AveI D	50447	127799	451348	1539372	4319939	0.200	0.500	2.00	8.00	20.0
			9655531	16898738				50.0	100			

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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
Perfluoropentanesulfonic acid		AveI D	65872	153464	603694	2243428	5710014	0.188	0.469	1.88	7.50	18.8
			13579515	23044379				46.9	93.8			
PFO3OA		AveI D	18867	41989	153875	682394	1445114	0.200	0.500	2.00	8.00	20.0
			3784242	6617696				50.0	100			
HFPODA		AveI D	10314	33693	116606	473867	1215225	0.200	0.500	2.00	8.00	20.0
			2916200	5166859				50.0	100			
Hydro-EVE Acid		AveI D	87383	218956	772502	3320043	8293891	0.200	0.500	2.00	8.00	20.0
			19776349	33250889				50.0	100			
R-PSDCA		AveI D	148384	413544	1363901	4955027	13101929	0.200	0.500	2.00	8.00	20.0
			33242053	52358479				50.0	100			
Hydro-PS Acid		AveI D	109511	259084	940469	3826000	9952107	0.200	0.500	2.00	8.00	20.0
			24738746	42379015				50.0	100			
Perfluoroheptanoic acid		AveI D	65381	142270	517229	1863823	4611203	0.200	0.500	2.00	8.00	20.0
			10778716	16647592				50.0	100			
Perfluorohexanesulfonic acid		AveI D	77904	183469	641015	2395772	6187854	0.182	0.456	1.82	7.30	18.2
			13805691	23449832				45.6	91.2			
DONA		AveI D	81136	206797	738652	2863274	7407599	0.189	0.473	1.89	7.56	18.9
			15556119	25991820				47.3	94.5			
PFECA G		AveI D	110493	249684	992401	3791285	9071844	0.200	0.500	2.00	8.00	20.0
			20536122	33827692				50.0	100			
5:3 FTCA		AveI D	13088	27364	96832	388568	964156	0.200	0.500	2.00	8.00	20.0
			2175471	3498907				50.0	100			
6:2 FTUCA		AveI D	64720	162429	592555	2229498	5601260	0.200	0.500	2.00	8.00	20.0
			11795719	19265027				50.0	100			

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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
6:2 FTCA		AveI D	6656	14791	58639	196515	483832	0.200	0.500	2.00	8.00	20.0
			1194100	1974240				50.0	100			
PFO4DA		AveI D	27168	81218	278040	1176445	2619959	0.200	0.500	2.00	8.00	20.0
			6269910	11444578				50.0	100			
PS Acid		AveI D	39632	97790	349302	1386005	3494406	0.200	0.500	2.00	8.00	20.0
			8420444	13341936				50.0	100			
EVE Acid		AveI D	76848	190105	779954	2761697	6626338	0.200	0.500	2.00	8.00	20.0
			16224177	25023261				50.0	100			
Perfluoro-4-ethylcyclohexanesulfonic acid		AveI D	67607	167353	615349	2455233	6297498	0.184	0.461	1.84	7.38	18.4
			16112603	25617238				46.1	92.2			
6:2 Fluorotelomer sulfonic acid		AveI D	4823	13136	48103	172505	500102	0.190	0.474	1.90	7.58	19.0
			1038582	1721814				47.4	94.8			
Perfluoroheptanesulfonic acid		AveI D	69001	158470	603620	2511420	6380030	0.190	0.476	1.90	7.62	19.0
			13528755	22945246				47.6	95.2			
Perfluorooctanoic acid		AveI D	54731	125539	453735	1598218	4281798	0.200	0.500	2.00	8.00	20.0
			9012811	15024508				50.0	100			
TAF		AveI D	34241	81357	299027	1161653	2878746	0.200	0.500	2.00	8.00	20.0
			7578926	11986451				50.0	100			
Perfluorooctanesulfonic acid		AveI D	61162	148800	602724	2232793	6145211	0.185	0.463	1.85	7.40	18.5
			13999350	24081345				46.3	92.6			
Perfluorononanoic acid		AveI D	46367	104995	395668	1549706	3935208	0.200	0.500	2.00	8.00	20.0
			9065838	14032209				50.0	100			
7:3 FTCA		AveI D	10112	29319	121012	458689	1074286	0.200	0.500	2.00	8.00	20.0
			2565135	4129394				50.0	100			

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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 FTUCA		AveI D	48655 +++++	111722 +++++	459273	1488801	3494755	0.200 +++++	0.500 +++++	2.00	8.00	20.0
8:2 FTCA		AveI D	4477 873555	11650 1366392	40595	147951	328071	0.200 50.0	0.500 100	2.00	8.00	20.0
9Cl-PF3ONS		AveI D	59364 14944539	147540 25771986	566411	2197270	6330028	0.186 46.5	0.465 93.0	1.86	7.44	18.6
Perfluorononanesulfonic acid		AveI D	69335 15214236	157409 24710430	607634	2400216	6075581	0.192 48.0	0.480 96.0	1.92	7.68	19.2
8:2 Fluorotelomer sulfonic acid		AveI D	4818 1077105	12021 1641664	46367	171905	387439	0.192 47.9	0.479 95.8	1.92	7.66	19.2
Perfluorodecanoic acid		AveI D	47915 9299417	100561 14438308	379462	1479889	3828333	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorooctanesulfonamide		AveI D	96841 21355975	228111 34729840	911276	3583768	9047807	0.200 50.0	0.500 100	2.00	8.00	20.0
NMeFOSAA		AveI D	15352 3226158	34509 5206043	129063	466688	1343486	0.200 50.0	0.500 100	2.00	8.00	20.0
Perfluorodecanesulfonic acid		AveI D	66152 15325156	156015 23398727	617819	2276831	6050852	0.193 48.2	0.482 96.4	1.93	7.71	19.3
Perfluoroundecanoic acid		AveI D	27808 6251960	72386 9936449	266662	995128	2638528	0.200 50.0	0.500 100	2.00	8.00	20.0
NEtFOSAA		AveI D	10109 2433413	22595 3789071	100329	361184	1007844	0.200 50.0	0.500 100	2.00	8.00	20.0
10:2 FTUCA		AveI D	39763 6962411	92210 11678016	341334	1297949	3015516	0.200 50.0	0.500 100	2.00	8.00	20.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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
11Cl-PF3OUdS		AveI D	53547	132104	465676	1681674	4394656	0.186	0.465	1.86	7.44	18.6
			11288012	19292617				46.5	93.0			
10:2 FTCA		AveI D	5007	8415	30239	126934	271781	0.200	0.500	2.00	8.00	20.0
			697009	1077242				50.0	100			
Perfluorododecanoic acid		AveI D	20024	46423	184354	704208	1845370	0.200	0.500	2.00	8.00	20.0
			4408565	7471703				50.0	100			
10:2 FTS		AveI D	4298	10297	38673	144373	321741	0.193	0.482	1.93	7.71	19.3
			755421	1288770				48.2	96.4			
NMeFOSE		AveI D	10805	30978	115676	424339	1083824	0.200	0.500	2.00	8.00	20.0
			2620394	4940254				50.0	100			
NMeFOSA		AveI D	15812	32760	114213	464367	1148327	0.200	0.500	2.00	8.00	20.0
			3080437	5144091				50.0	100			
Perfluorododecanesulfonic acid		AveI D	64461	137016	515207	2086211	5010220	0.194	0.484	1.94	7.74	19.4
			12186011	21782743				48.4	96.8			
NEtFOSE		AveI D	15242	32096	119602	442488	1129277	0.200	0.500	2.00	8.00	20.0
			2872416	5147664				50.0	100			
Perfluorotridecanoic acid		AveI D	12971	34689	136973	522754	1262834	0.200	0.500	2.00	8.00	20.0
			3243571	4860307				50.0	100			
NEtFOSA		AveI D	14483	35390	128548	508949	1333841	0.200	0.500	2.00	8.00	20.0
			3110463	5243620				50.0	100			
Perfluorotetradecanoic acid		AveI D	17608	34906	137922	505547	1260284	0.200	0.500	2.00	8.00	20.0
			3103466	5345034				50.0	100			
Perfluorohexadecanoic acid		AveI D	23014	54096	189946	725040	1791203	0.200	0.500	2.00	8.00	20.0
			4197400	7176016				50.0	100			

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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
Perfluorooctadecanoic acid		AveI D	8183	18617	70489	267812	690285	0.200	0.500	2.00	8.00	20.0
			1836531	3383430				50.0	100			
13C4 PFBA	13C3 PFBA	Ave	2101154	2137451	1916434	1863715	1843086	10.0	10.0	10.0	10.0	10.0
			1696732	1612678				10.0	10.0			
13C5 PFPeA	13C3 PFBA	Ave	1784071	1828787	1664660	1682197	1536670	10.0	10.0	10.0	10.0	10.0
			1544486	1465737				10.0	10.0			
13C3 PFBS	13C3 PFBA	Ave	3284332	3475553	3035796	3109208	3035528	9.30	9.30	9.30	9.30	9.30
			2777696	2552580				9.30	9.30			
M2-4:2 FTS	13PF OA	Ave	157242	158476	141483	148095	149442	9.34	9.34	9.34	9.34	9.34
			134737	105491				9.34	9.34			
13C5 PFHxA	13PF OA	Ave	2797591	2786208	2385095	2332334	2330898	10.0	10.0	10.0	10.0	10.0
			2280457	1968497				10.0	10.0			
13C3 HFPO-DA	13PF OA	Ave	758656	808010	692316	722488	690483	10.0	10.0	10.0	10.0	10.0
			677806	659673				10.0	10.0			
13C4 PFHpA	13PF OA	Ave	2830440	2679848	2409861	2448622	2128681	10.0	10.0	10.0	10.0	10.0
			2044845	1609868				10.0	10.0			
13C3 PFHxS	13PF OA	Ave	3618920	3344331	3069574	2976920	2880513	9.46	9.46	9.46	9.46	9.46
			2603514	2217737				9.46	9.46			
13C2-2H-Perfluoro-2-octenoic acid	13PF OA	Ave	2734418	2821400	2412679	2614986	2300628	10.0	10.0	10.0	10.0	10.0
			2127007	1739388				10.0	10.0			
13C2-2-Perfluorohexylethanoic acid	13PF OA	Ave	271500	309817	237874	261040	232995	10.0	10.0	10.0	10.0	10.0
			242457	195691				10.0	10.0			
M2-6:2 FTS	13PF OA	Ave	102982	102962	88880	98553	92299	9.50	9.50	9.50	9.50	9.50
			89394	73175				9.50	9.50			

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1

Analy Batch No.: 272051

SDG No.:

Instrument ID: 30733

GC Column: Gemini C18 ID: 3 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15

Calibration End Date: 07/04/2022 17:22

Calibration ID: 40369

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 PFOA	13PF OA	Ave	2251638	2394150	2049481	2102178	2011823	10.0	10.0	10.0	10.0	10.0
			1833583	1490170				10.0	10.0			
13C8 PFOS	PFOS	Ave	3064122	2881715	2700744	2708769	2767662	9.56	9.56	9.56	9.56	9.56
			2603744	2356492				9.56	9.56			
13C9 PFNA	PFOS	Ave	2267150	2194542	1809019	1940910	1851229	10.0	10.0	10.0	10.0	10.0
			1860703	1496983				10.0	10.0			
13C2-2H-Perfluoro-2-decenoic acid	PFDA	Ave	2096413	2406827	1774708	1843898	1677217	10.0	10.0	10.0	10.0	10.0
			+++++	+++++				+++++	+++++			
13C2-2-Perfluorooctylethanoic acid	PFDA	Ave	205599	198407	185130	171156	170700	10.0	10.0	10.0	10.0	10.0
			171556	141109				10.0	10.0			
13C6 PFDA	PFDA	Ave	1978966	1975274	1786583	1875882	1793818	10.0	10.0	10.0	10.0	10.0
			1868920	1563297				10.0	10.0			
M2-8:2 FTS	PFDA	Ave	74132	77341	69181	73841	68449	9.58	9.58	9.58	9.58	9.58
			63138	56245				9.58	9.58			
13C8 FOSA	PFDA	Ave	4434931	4452784	3684837	4469328	4240465	10.0	10.0	10.0	10.0	10.0
			4131241	3469663				10.0	10.0			
d3-NMeFOSAA	PFDA	Ave	734730	767937	686654	767120	706487	10.0	10.0	10.0	10.0	10.0
			714424	595029				10.0	10.0			
13C7 PFunA	PFDA	Ave	1547972	1448677	1192931	1417169	1316665	10.0	10.0	10.0	10.0	10.0
			1322815	1138786				10.0	10.0			
d5-NETfOSAA	PFDA	Ave	635248	661116	599346	628314	658695	10.0	10.0	10.0	10.0	10.0
			574196	458826				10.0	10.0			
13C2-2H-Perfluoro-2-dodecenoic acid	PFDA	Ave	1930082	2086206	1815159	1837938	1866044	10.0	10.0	10.0	10.0	10.0
			1664000	1301910				10.0	10.0			
13C2-2-Perfluorodecylethanoic acid	PFDA	Ave	171776	199322	145749	156669	154092	10.0	10.0	10.0	10.0	10.0
			137691	104527				10.0	10.0			
13C2-PFDoDA	PFDA	Ave	943425	991347	799501	810247	852495	10.0	10.0	10.0	10.0	10.0
			853011	765464				10.0	10.0			
d7-N-MeFOSE-M	PFDA	Ave	552724	559670	488105	482212	507864	10.0	10.0	10.0	10.0	10.0
			565817	447340				10.0	10.0			
d3-NMePFOSA	PFDA	Ave	604830	647769	552438	608855	589816	10.0	10.0	10.0	10.0	10.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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
			594870	558683				10.0	10.0			
d9-N-EtFOSE-M	PFDA	Ave	615179 545966	603743 470583	527334	589247	497451	10.0 10.0	10.0 10.0	10.0	10.0	10.0
d5-NEtPFOSA	PFDA	Ave	587094 515120	589557 447455	512091	529546	517624	10.0 10.0	10.0 10.0	10.0	10.0	10.0
13C2 PFTeDA	PFDA	Ave	837509 752750	815440 648385	717038	747252	740780	10.0 10.0	10.0 10.0	10.0	10.0	10.0

Curve Type Legend

Ave = Average ISTD
 AveID = Average isotope dilution

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-272051/1	22JUL04XMCAL-01.d
Level 2	IC 410-272051/2	22JUL04XMCAL-02.d
Level 3	IC 410-272051/3	22JUL04XMCAL-03.d
Level 4	IC 410-272051/4	22JUL04XMCAL-04.d
Level 5	ICISAV 410-272051/5	22JUL04XMCAL-05.d
Level 6	IC 410-272051/6	22JUL04XMCAL-06.d
Level 7	IC 410-272051/7	22JUL04XMCAL-07.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
MTP	-3.0 9.7	-9.7	-4.2	-1.5	-0.3	9.0	50 30	30	30	30	30	30
PPF Acid	2.5 3.7	-4.0	-5.2	-3.1	1.3	4.9	50 30	30	30	30	30	30
PFMOAA	2.4 8.4	-5.7	-5.3	-4.3	-3.8	8.4	50 30	30	30	30	30	30
Perfluorobutanoic acid	5.7 -4.9	0.3	2.4	-2.8	2.6	-3.3	50 30	30	30	30	30	30
R-EVE	2.1 3.9	-10.3	-6.6	-2.4	-0.7	13.9	50 30	30	30	30	30	30
R-PSDA	-2.2 12.8	-6.4	-7.3	-7.8	-3.3	14.2	50 30	30	30	30	30	30
Hydrolyzed PSDA	-2.3 0.5	-5.7	0.5	-3.9	1.3	9.7	50 30	30	30	30	30	30
PMPA	2.3 -1.1	-3.4	-2.3	-1.1	-1.9	7.6	50 30	30	30	30	30	30
Perfluoropropanesulfonic acid	-4.0 1.7	-9.2	-0.9	8.2	0.8	3.4	50 30	30	30	30	30	30
NVHOS	8.3 -1.3	-5.9	-4.5	0.7	1.9	0.8	50 30	30	30	30	30	30
PFECA F	4.6 -8.8	-3.2	2.9	1.9	-0.5	3.2	50 30	30	30	30	30	30
PFO2HxA	6.4 5.5	-8.5	-3.9	-2.2	-4.4	7.0	50 30	30	30	30	30	30
3:3 FTCA	29.1 -8.0	-9.1	-3.6	-1.7	-2.5	-4.1	50 30	30	30	30	30	30
Perfluoropentanoic acid	23.0 -11.1	-3.9	7.4	-7.5	0.5	-8.4	50 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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
Perfluorobutanesulfonic acid	-0.1 -7.4	0.7	3.4	-1.5	1.0	3.9	50 30	30	30	30	30	30
PEPA	6.0 -7.9	-3.1	0.9	-2.9	2.7	4.3	50 30	30	30	30	30	30
PFECA A	11.1 -3.9	-1.7	3.4	-8.1	-3.8	2.9	50 30	30	30	30	30	30
Perfluoro (2-ethoxyethane) sulfonic acid	8.3 -2.9	-0.7	4.2	1.7	-8.2	-2.4	50 30	30	30	30	30	30
PFECA B	4.4 -7.7	-8.0	10.3	-2.7	-1.0	4.8	50 30	30	30	30	30	30
4:2 Fluorotelomer sulfonic acid	-7.2 5.2	-9.9	13.5	-3.7	-0.9	2.9	50 30	30	30	30	30	30
Perfluorohexanoic acid	1.4 -3.4	3.2	6.4	-7.2	4.3	-4.7	50 30	30	30	30	30	30
Perfluoropentanesulfonic acid	6.3 -4.3	-6.4	5.4	-4.4	-0.3	3.7	50 30	30	30	30	30	30
PFO3OA	6.6 -2.6	-6.8	-4.7	8.6	-7.0	5.9	50 30	30	30	30	30	30
HFPODA	-16.5 -3.8	2.4	3.4	0.7	8.1	5.7	50 30	30	30	30	30	30
Hydro-EVE Acid	-3.0 -3.9	-4.5	-6.0	3.8	4.9	8.7	50 30	30	30	30	30	30
R-PSDCA	2.2 -7.2	7.6	1.6	-9.9	-2.4	8.2	50 30	30	30	30	30	30
Hydro-PS Acid	3.0 2.6	-7.9	-4.3	-4.9	1.3	10.1	50 30	30	30	30	30	30
Perfluoroheptanoic acid	9.1 -2.3	0.3	1.3	-10.2	2.3	-0.4	50 30	30	30	30	30	30
Perfluorohexanesulfonic acid	1.6 -0.2	3.6	-1.4	-5.0	1.4	0.1	50 30	30	30	30	30	30
DONA	-7.5 4.2	-0.4	-1.1	-5.7	12.3	-1.8	50 30	30	30	30	30	30
PFECA G	7.8 -14.0	-4.2	6.1	4.2	0.9	-0.8	50 30	30	30	30	30	30
5:3 FTCA	8.5 2.0	-4.1	-5.7	-6.9	6.3	-0.1	50 30	30	30	30	30	30
6:2 FTUCA	2.7 -3.8	0.0	6.6	-7.5	5.7	-3.7	50 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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
6:2 FTCA	16.2 -4.4	-9.5	16.8	-10.8	-1.6	-6.7	50 30	30	30	30	30	30
PFO4DA	-10.9 -2.2	4.7	0.0	8.7	-2.1	1.8	50 30	30	30	30	30	30
PS Acid	5.5 -8.6	-1.6	0.6	-2.6	0.6	6.0	50 30	30	30	30	30	30
EVE Acid	0.3 -14.9	-2.4	11.7	1.6	-1.4	4.9	50 30	30	30	30	30	30
Perfluoro-4-ethylcyclohexanesulfonic acid	-12.3 8.5	-6.0	-5.9	-3.2	2.7	16.2	50 30	30	30	30	30	30
6:2 Fluorotelomer sulfonic acid	-4.6 -4.1	4.0	10.3	-10.8	10.4	-5.3	50 30	30	30	30	30	30
Perfluoroheptanesulfonic acid	-6.3 1.7	-6.8	-3.3	3.7	8.9	2.2	50 30	30	30	30	30	30
Perfluorooctanoic acid	15.3 -4.3	-0.5	5.0	-9.8	1.0	-6.7	50 30	30	30	30	30	30
TAF	2.7 -6.3	-4.0	-1.7	-1.8	-1.6	12.6	50 30	30	30	30	30	30
Perfluorooctanesulfonic acid	-5.4 -3.1	-2.1	5.8	-2.3	5.2	1.9	50 30	30	30	30	30	30
Perfluorononanoic acid	1.6 -6.9	-4.9	8.6	-0.8	5.6	-3.2	50 30	30	30	30	30	30
7:3 FTCA	-13.2 -1.7	-11.8	18.5	2.3	7.4	-1.4	50 30	30	30	30	30	30
8:2 FTUCA	6.8 +++++	-14.6	19.1	-7.1	-4.1	+++++	50	30	30	30	30	
8:2 FTCA	3.2 -8.2	11.3	3.9	2.4	-8.9	-3.5	50 30	30	30	30	30	30
9Cl-PF3ONS	-8.9 2.9	-3.7	-1.3	-4.6	7.6	8.0	50 30	30	30	30	30	30
Perfluorononanesulfonic acid	1.9 -5.5	-1.6	1.3	-0.2	-1.1	5.3	50 30	30	30	30	30	30
8:2 Fluorotelomer sulfonic acid	4.4 -6.2	-0.1	7.7	-6.5	-9.0	9.7	50 30	30	30	30	30	30
Perfluorodecanoic acid	16.7 -11.0	-1.9	2.4	-5.0	2.8	-4.1	50 30	30	30	30	30	30
Perfluorooctanesulfonamide	2.5 -6.0	-3.8	16.1	-5.9	0.1	-2.9	50 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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
NMeFOSAA	14.8 -3.9	-1.3	3.2	-16.5	4.4	-0.8	50 30	30	30	30	30	30
Perfluorodecanesulfonic acid	-0.8 -8.8	-0.5	5.1	-3.5	0.4	8.1	50 30	30	30	30	30	30
Perfluoroundecanoic acid	-6.3 -9.0	4.2	16.6	-8.5	4.5	-1.4	50 30	30	30	30	30	30
NEtFOSAA	1.8 5.6	-12.6	7.0	-8.1	-2.2	8.4	50 30	30	30	30	30	30
10:2 FTUCA	14.8 0.0	-1.4	4.8	-1.6	-9.9	-6.7	50 30	30	30	30	30	30
11Cl-PF3OUds	3.5 -3.0	8.6	2.1	-8.1	-5.9	2.7	50 30	30	30	30	30	30
10:2 FTCA	40.2 -0.9	-18.8	-0.2	-2.6	-15.2	-2.6	50 30	30	30	30	30	30
Perfluorododecanoic acid	1.4 -6.8	-10.6	10.1	3.8	3.4	-1.3	50 30	30	30	30	30	30
10:2 FTS	13.8 -10.1	4.5	9.7	-4.1	-7.8	-6.1	50 30	30	30	30	30	30
NMeFOSE	-8.4 3.5	3.8	11.1	3.1	0.0	-13.2	50 30	30	30	30	30	30
NMeFOSA	26.5 -10.9	-2.1	0.0	-7.8	-5.8	0.2	50 30	30	30	30	30	30
Perfluorododecanesulfonic acid	10.1 -3.2	-0.4	-0.1	0.8	-5.2	-2.0	50 30	30	30	30	30	30
NEtFOSE	13.3 0.0	-2.8	3.7	-14.2	3.8	-3.8	50 30	30	30	30	30	30
Perfluorotridecanoic acid	-7.2 -14.3	-5.5	15.6	8.8	0.0	2.6	50 30	30	30	30	30	30
NEtFOSA	0.9 -4.2	-1.8	2.7	-1.7	5.4	-1.2	50 30	30	30	30	30	30
Perfluorotetradecanoic acid	18.4 -7.1	-3.6	8.3	-4.7	-4.2	-7.1	50 30	30	30	30	30	30
Perfluorohexadecanoic acid	10.9 -10.6	7.1	7.0	-2.1	-2.4	-9.9	50 30	30	30	30	30	30
Perfluorooctadecanoic acid	1.8 8.7	-4.9	2.4	-6.7	-2.9	1.6	50 30	30	30	30	30	30
13C4 PFBA	5.4 -2.4	3.1	1.0	-0.3	-3.4	-3.4	30 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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
13C5 PFPeA	2.2 1.4	0.8	0.2	2.9	-7.9	0.4	30 30	30	30	30	30	30
13C3 PFBS	2.0 -4.3	3.8	-0.9	3.0	-1.5	-2.1	30 30	30	30	30	30	30
M2-4:2 FTS	3.0 -3.9	-3.5	-6.6	3.1	7.0	1.0	30 30	30	30	30	30	30
13C5 PFHxA	7.9 5.5	-0.2	-7.4	-4.5	-1.8	0.5	30 30	30	30	30	30	30
13C3 HFPO-DA	-2.0 18.4	-3.1	-10.0	-0.9	-2.6	0.1	30 30	30	30	30	30	30
13C4 PFHpA	14.9 -9.2	1.0	-1.5	5.5	-5.6	-5.1	30 30	30	30	30	30	30
13C3 PFHxS	14.2 -2.8	-2.0	-2.5	-0.2	-0.7	-6.1	30 30	30	30	30	30	30
13C2-2H-Perfluoro-2-octenoic acid	6.8 -5.6	2.4	-5.1	8.5	-1.8	-5.0	30 30	30	30	30	30	30
13C2-2-Perfluorohexylethanoic acid	1.1 1.3	7.2	-10.8	3.2	-5.2	3.2	30 30	30	30	30	30	30
M2-6:2 FTS	3.3 2.1	-4.0	-10.2	5.0	1.2	2.6	30 30	30	30	30	30	30
13C8 PFOA	4.1 -4.2	2.8	-4.6	3.2	1.6	-3.0	30 30	30	30	30	30	30
13C8 PFOS	8.4 1.4	0.1	-0.5	0.9	-1.6	-8.8	30 30	30	30	30	30	30
13C9 PFNA	14.4 -8.2	8.7	-4.9	3.1	-6.1	-7.0	30 30	30	30	30	30	30
13C2-2H-Perfluoro-2-decenoic acid	1.5 ++++	23.5	-3.1	-8.5	-13.4	++++	30	30	30	30	30	
13C2-2-Perfluorooctylethanoic acid	7.9 -5.5	10.4	9.6	-7.9	-4.5	-10.0	30 30	30	30	30	30	30
13C6 PFDA	0.5 1.3	6.3	2.3	-2.4	-2.9	-5.2	30 30	30	30	30	30	30
M2-8:2 FTS	0.2 -3.0	10.9	5.5	2.3	-1.3	-14.7	30 30	30	30	30	30	30
13C8 FOSA	0.3 0.1	6.7	-6.0	3.6	2.2	-6.7	30 30	30	30	30	30	30
d3-NMeFOSAA	-3.6 -0.4	6.8	1.6	3.2	-1.2	-6.4	30 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 240-168405-1 Analy Batch No.: 272051

SDG No.: _____

Instrument ID: 30733 GC Column: Gemini C18 ID: 3 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/04/2022 16:15 Calibration End Date: 07/04/2022 17:22 Calibration ID: 40369

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
13C7 PFUnA	7.7 1.1	6.9	-6.4	1.1	-2.3	-8.0	30 30	30	30	30	30	30
d5-NEtFOSAA	-1.6 -9.3	8.6	4.8	-0.2	8.8	-11.1	30 30	30	30	30	30	30
13C2-2H-Perfluoro-2-dodecenoic acid	0.9 -13.1	15.6	7.1	-1.5	4.0	-13.1	30 30	30	30	30	30	30
13C2-2-Perfluorodecylethanoic acid	5.2 -18.3	29.4	0.7	-1.7	0.6	-15.8	30 30	30	30	30	30	30
13C2-PFDoDA	2.2 5.8	13.8	-2.3	-10.1	-1.6	-7.7	30 30	30	30	30	30	30
d7-N-MeFOSE-M	0.0 3.3	7.4	-0.4	-10.6	-2.0	2.3	30 30	30	30	30	30	30
d3-NMePFOSA	-5.4 11.5	7.4	-2.5	-2.4	-1.6	-7.0	30 30	30	30	30	30	30
d9-N-EtFOSE-M	4.3 1.8	8.5	0.8	2.4	-10.1	-7.6	30 30	30	30	30	30	30
d5-NEtPFOSA	3.5 0.7	10.2	1.9	-4.3	-2.7	-9.3	30 30	30	30	30	30	30
13C2 PFTeDA	3.8 2.6	7.2	0.3	-5.0	-2.1	-6.8	30 30	30	30	30	30	30

Calibration

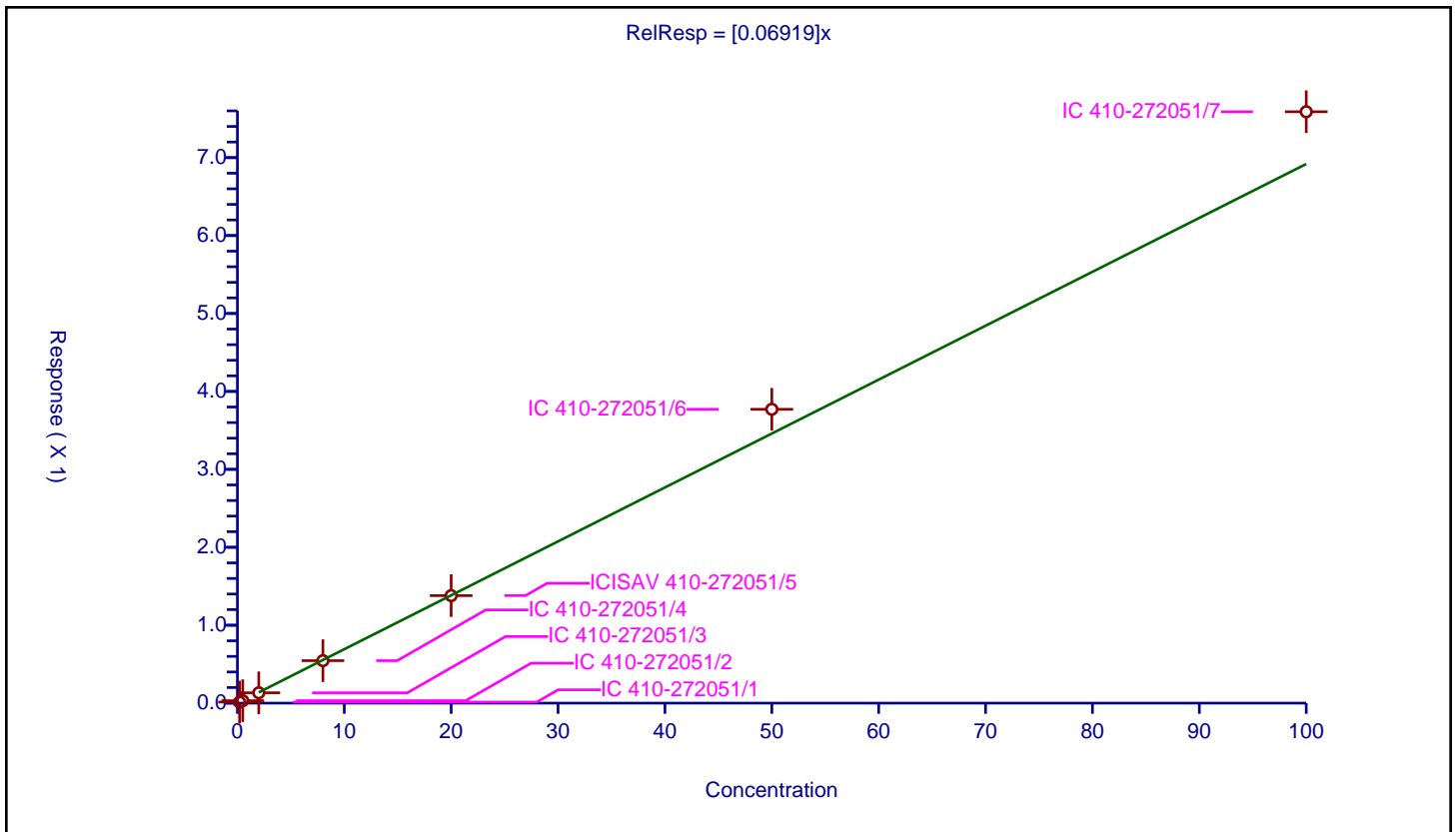
/ MTP

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

Curve Coefficients	
Intercept:	0
Slope:	0.06919

Error Coefficients	
Standard Error:	575000
Relative Standard Error:	7.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.013416	10.0	2101154.0	0.067082	Y
2	IC 410-272051/2	0.5	0.031247	10.0	2137451.0	0.062495	Y
3	IC 410-272051/3	2.0	0.132611	10.0	1916434.0	0.066305	Y
4	IC 410-272051/4	8.0	0.545073	10.0	1863715.0	0.068134	Y
5	ICISAV 410-272051/5	20.0	1.379561	10.0	1843086.0	0.068978	Y
6	IC 410-272051/6	50.0	3.770731	10.0	1696732.0	0.075415	Y
7	IC 410-272051/7	100.0	7.588818	10.0	1612678.0	0.075888	Y



Calibration

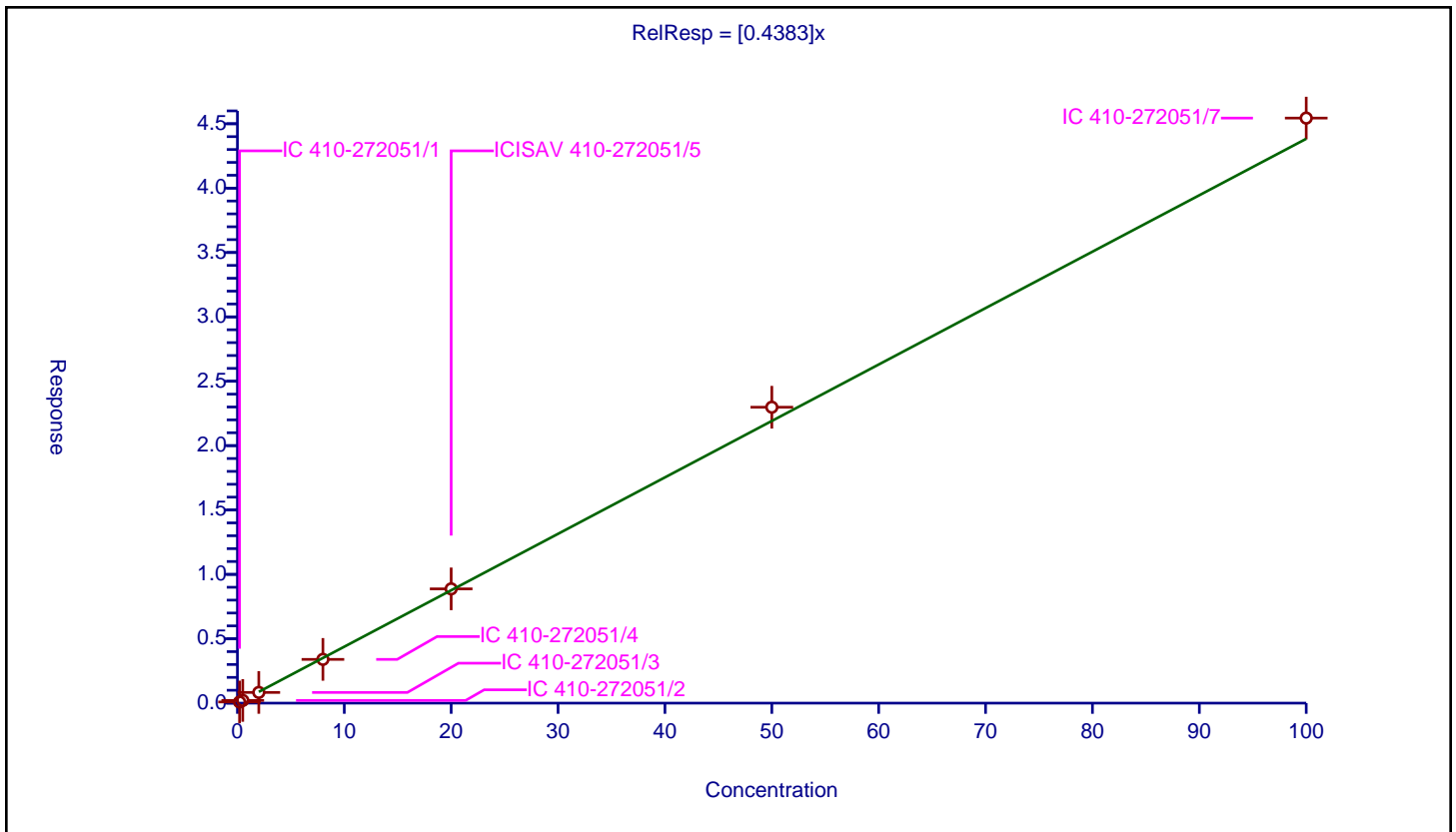
/ PPF Acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.4383

Error Coefficients	
Standard Error:	3460000
Relative Standard Error:	4.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.089836	10.0	2101154.0	0.449182	Y
2	IC 410-272051/2	0.5	0.210466	10.0	2137451.0	0.420931	Y
3	IC 410-272051/3	2.0	0.830955	10.0	1916434.0	0.415477	Y
4	IC 410-272051/4	8.0	3.398143	10.0	1863715.0	0.424768	Y
5	ICISAV 410-272051/5	20.0	8.876298	10.0	1843086.0	0.443815	Y
6	IC 410-272051/6	50.0	22.984019	10.0	1696732.0	0.45968	Y
7	IC 410-272051/7	100.0	45.440528	10.0	1612678.0	0.454405	Y



Calibration

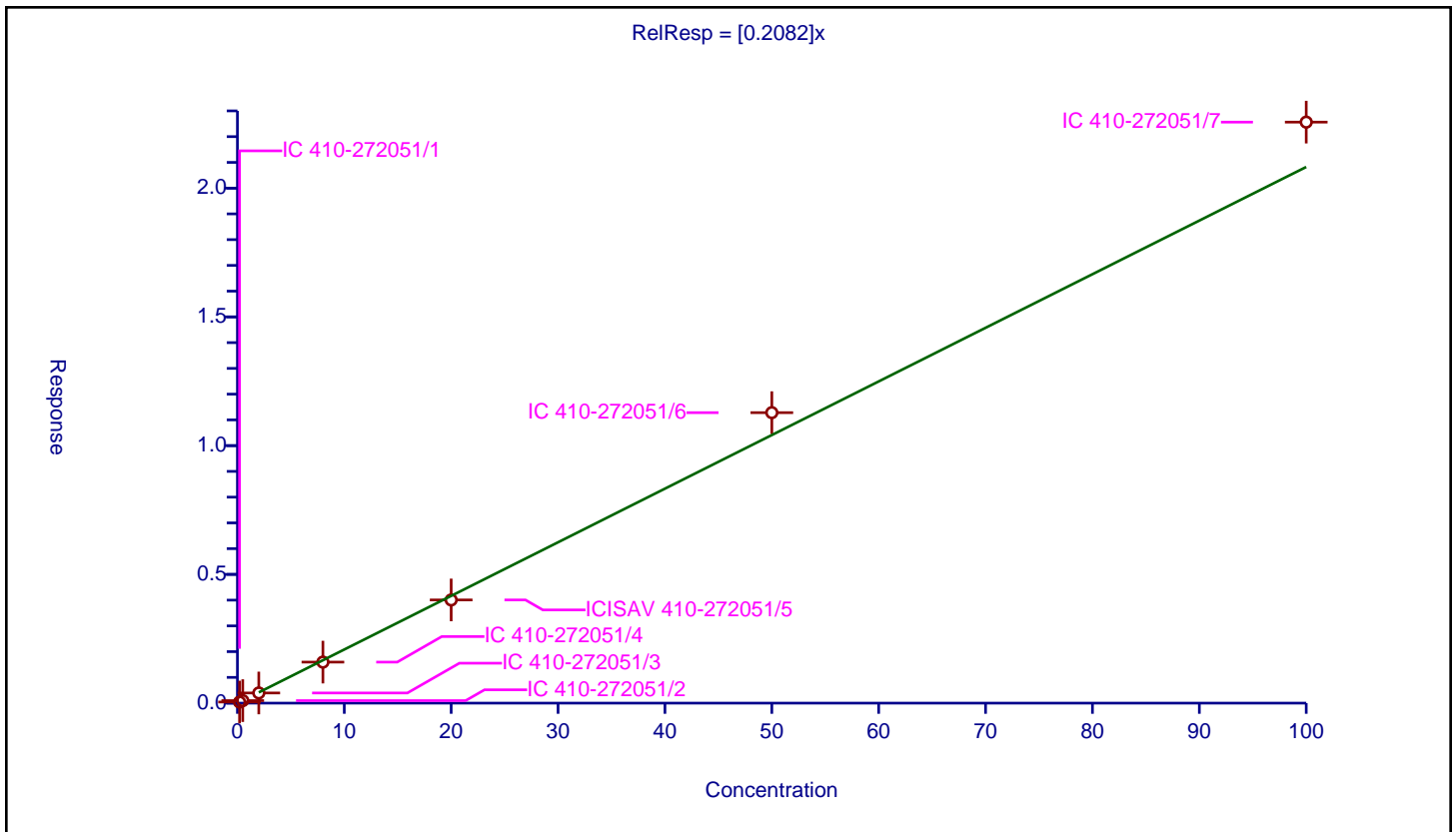
/ PFMOAA

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

Curve Coefficients	
Intercept:	0
Slope:	0.2082

Error Coefficients	
Standard Error:	1710000
Relative Standard Error:	6.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.042643	10.0	2101154.0	0.213216	Y
2	IC 410-272051/2	0.5	0.098182	10.0	2137451.0	0.196365	Y
3	IC 410-272051/3	2.0	0.394305	10.0	1916434.0	0.197153	Y
4	IC 410-272051/4	8.0	1.593634	10.0	1863715.0	0.199204	Y
5	ICISAV 410-272051/5	20.0	4.007095	10.0	1843086.0	0.200355	Y
6	IC 410-272051/6	50.0	11.280974	10.0	1696732.0	0.225619	Y
7	IC 410-272051/7	100.0	22.563946	10.0	1612678.0	0.225639	Y



Calibration

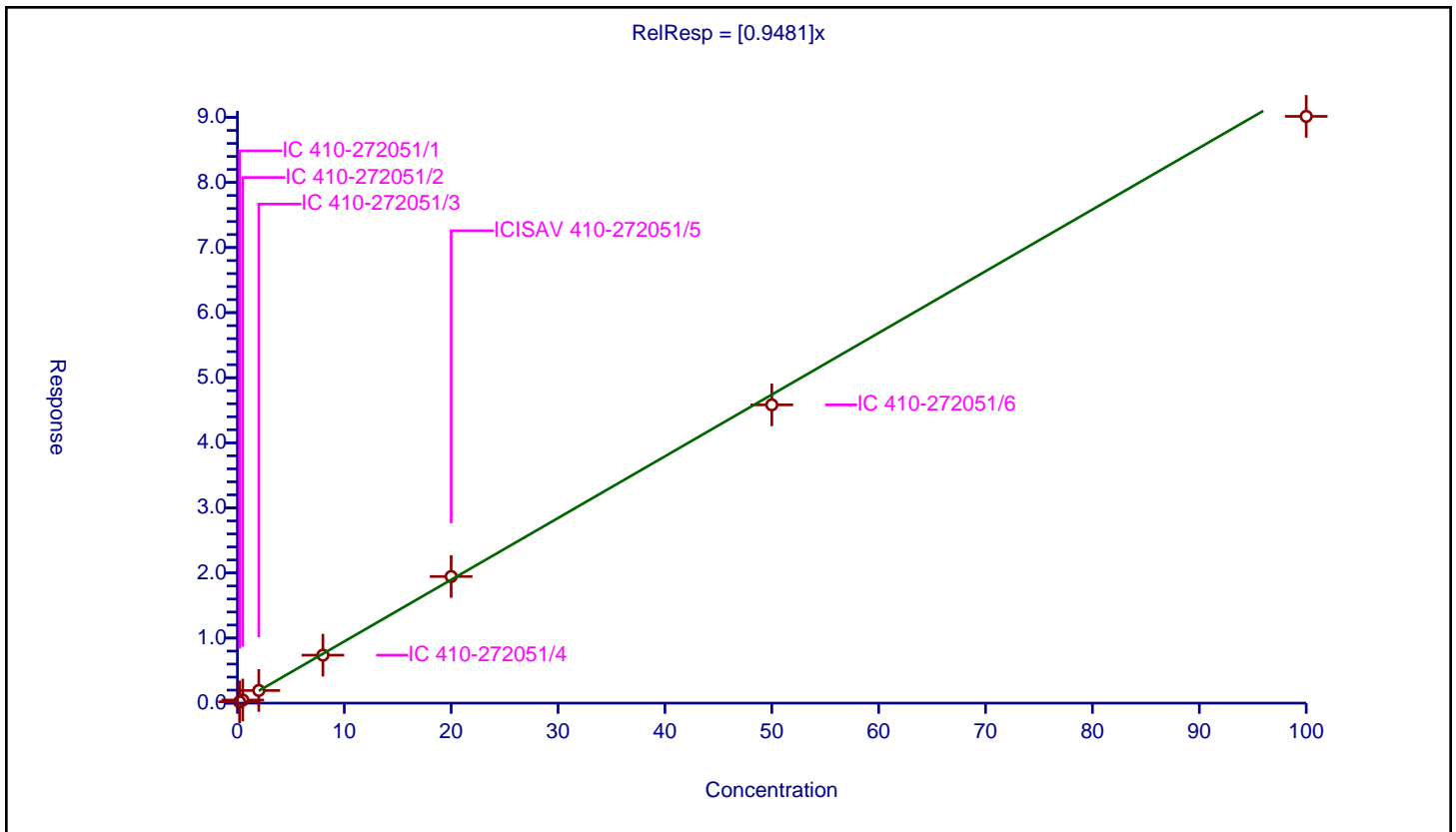
/ Perfluorobutanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.9481

Error Coefficients	
Standard Error:	6910000
Relative Standard Error:	3.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.200495	10.0	2101154.0	1.002473	Y
2	IC 410-272051/2	0.5	0.475435	10.0	2137451.0	0.950871	Y
3	IC 410-272051/3	2.0	1.941705	10.0	1916434.0	0.970853	Y
4	IC 410-272051/4	8.0	7.369925	10.0	1863715.0	0.921241	Y
5	ICISAV 410-272051/5	20.0	19.456162	10.0	1843086.0	0.972808	Y
6	IC 410-272051/6	50.0	45.831316	10.0	1696732.0	0.916626	Y
7	IC 410-272051/7	100.0	90.156572	10.0	1612678.0	0.901566	Y



Calibration

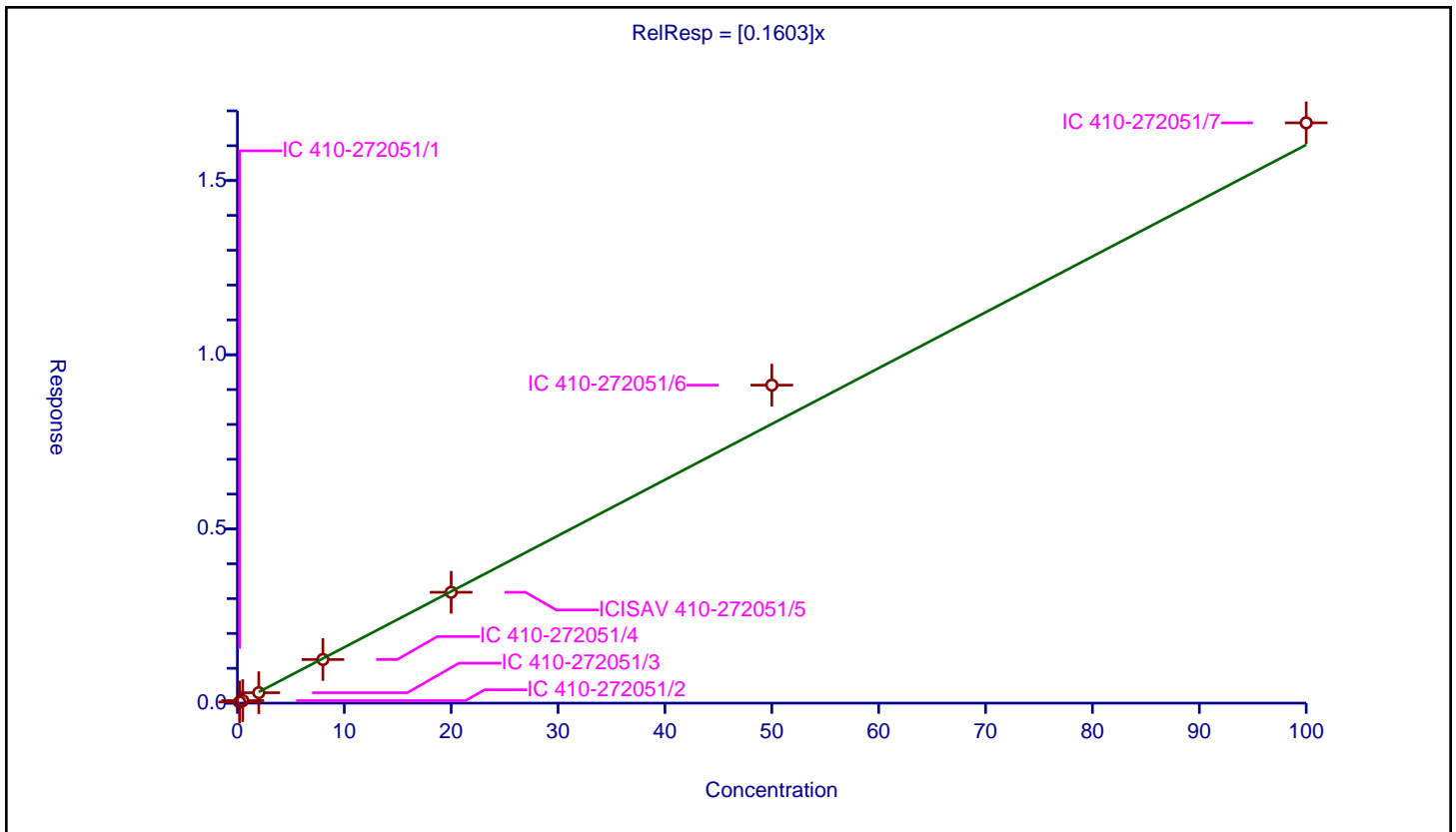
/ R-EVE

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

Curve Coefficients	
Intercept:	0
Slope:	0.1603

Error Coefficients	
Standard Error:	1290000
Relative Standard Error:	7.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.032711	10.0	2101154.0	0.163553	Y
2	IC 410-272051/2	0.5	0.071899	10.0	2137451.0	0.143797	Y
3	IC 410-272051/3	2.0	0.299478	10.0	1916434.0	0.149739	Y
4	IC 410-272051/4	8.0	1.251828	10.0	1863715.0	0.156478	Y
5	ICISAV 410-272051/5	20.0	3.18213	10.0	1843086.0	0.159107	Y
6	IC 410-272051/6	50.0	9.128059	10.0	1696732.0	0.182561	Y
7	IC 410-272051/7	100.0	16.656636	10.0	1612678.0	0.166566	Y



Calibration

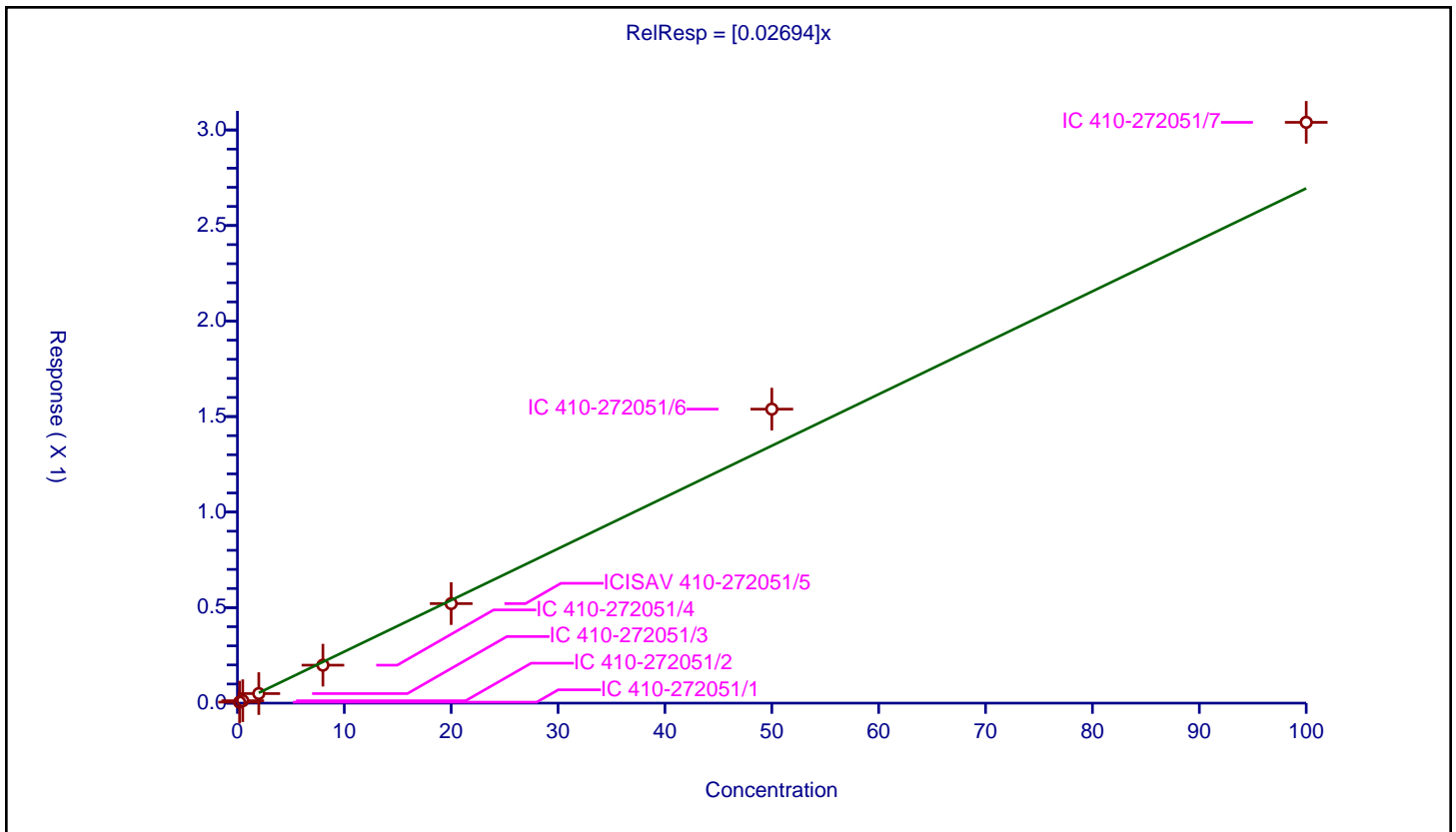
/ R-PSDA

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

Curve Coefficients	
Intercept:	0
Slope:	0.02694

Error Coefficients	
Standard Error:	396000
Relative Standard Error:	9.5
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.005272	9.3	3284332.0	0.026362	Y
2	IC 410-272051/2	0.5	0.012611	9.3	3475553.0	0.025222	Y
3	IC 410-272051/3	2.0	0.049931	9.3	3035796.0	0.024966	Y
4	IC 410-272051/4	8.0	0.198676	9.3	3109208.0	0.024834	Y
5	ICISAV 410-272051/5	20.0	0.520912	9.3	3035528.0	0.026046	Y
6	IC 410-272051/6	50.0	1.538937	9.3	2777696.0	0.030779	Y
7	IC 410-272051/7	100.0	3.040096	9.3	2552580.0	0.030401	Y



Calibration

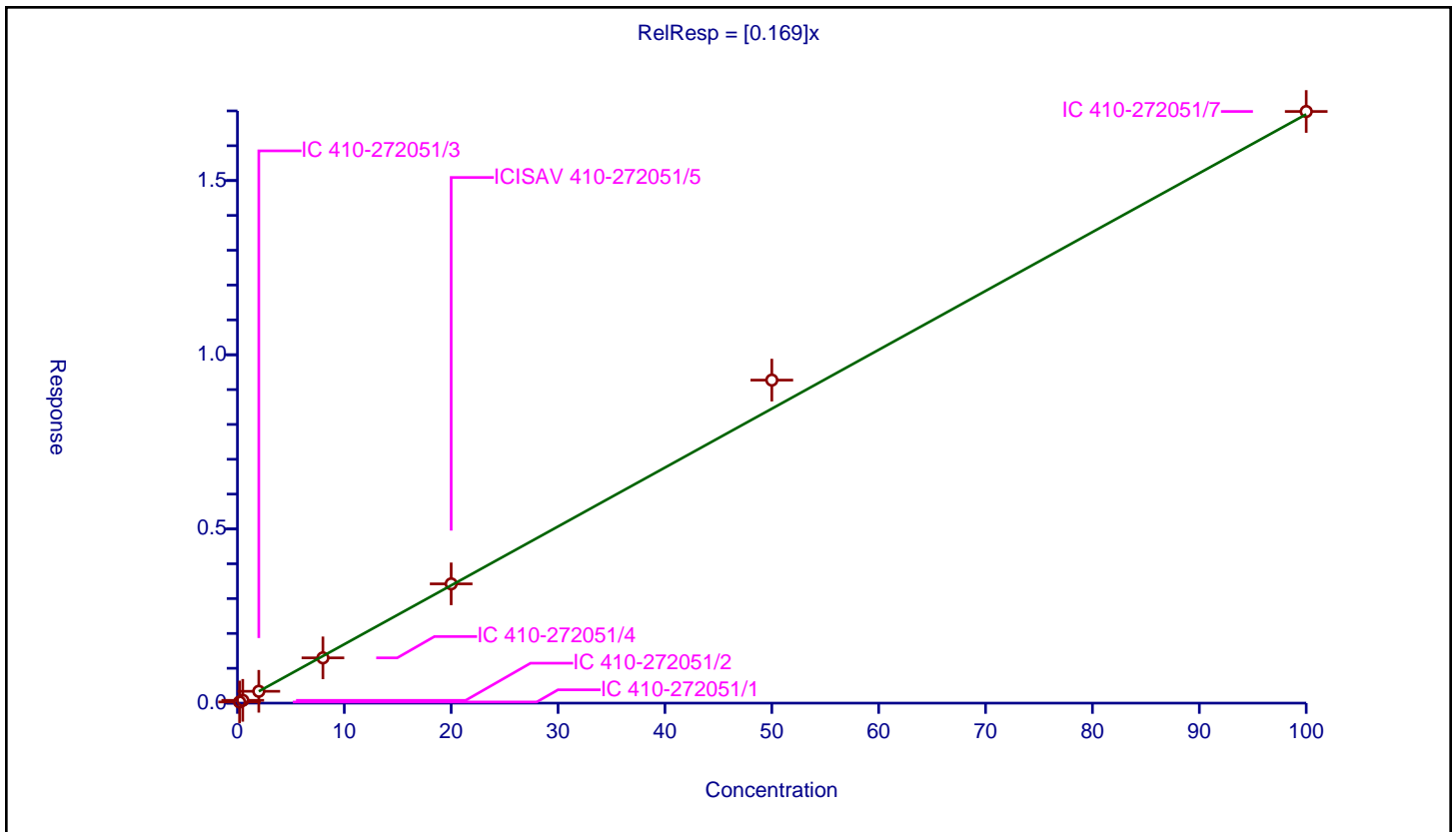
/ Hydrolyzed PSDA

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

Curve Coefficients	
Intercept:	0
Slope:	0.169

Error Coefficients	
Standard Error:	2270000
Relative Standard Error:	5.0
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.033042	9.3	3284332.0	0.165211	Y
2	IC 410-272051/2	0.5	0.079673	9.3	3475553.0	0.159346	Y
3	IC 410-272051/3	2.0	0.339592	9.3	3035796.0	0.169796	Y
4	IC 410-272051/4	8.0	1.298928	9.3	3109208.0	0.162366	Y
5	ICISAV 410-272051/5	20.0	3.423484	9.3	3035528.0	0.171174	Y
6	IC 410-272051/6	50.0	9.272659	9.3	2777696.0	0.185453	Y
7	IC 410-272051/7	100.0	16.982791	9.3	2552580.0	0.169828	Y



Calibration

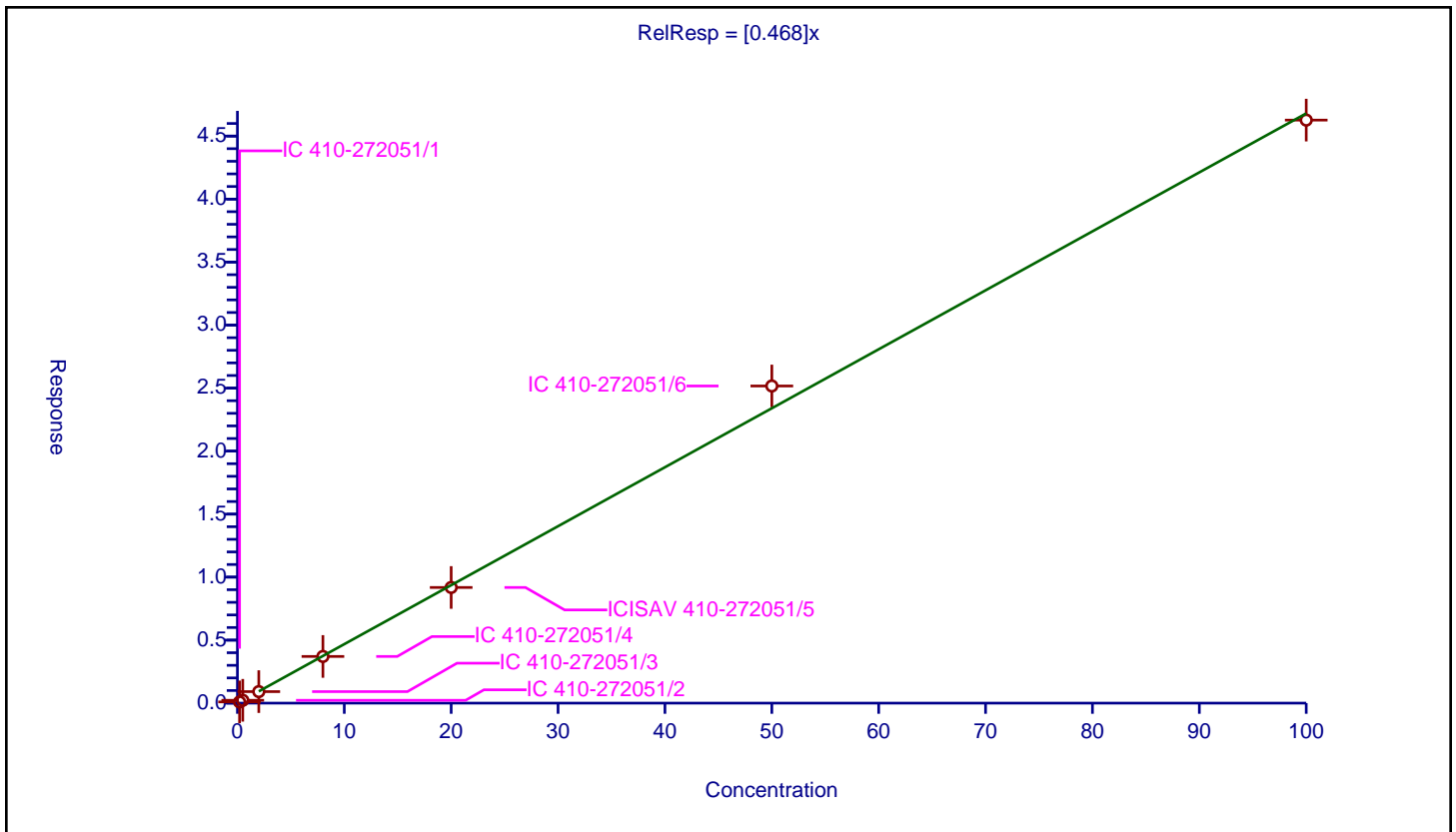
/ PMPA

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

Curve Coefficients	
Intercept:	0
Slope:	0.468

Error Coefficients	
Standard Error:	3590000
Relative Standard Error:	3.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.095738	10.0	2101154.0	0.478689	Y
2	IC 410-272051/2	0.5	0.225956	10.0	2137451.0	0.451912	Y
3	IC 410-272051/3	2.0	0.914647	10.0	1916434.0	0.457323	Y
4	IC 410-272051/4	8.0	3.704365	10.0	1863715.0	0.463046	Y
5	ICISAV 410-272051/5	20.0	9.178671	10.0	1843086.0	0.458934	Y
6	IC 410-272051/6	50.0	25.168536	10.0	1696732.0	0.503371	Y
7	IC 410-272051/7	100.0	46.269454	10.0	1612678.0	0.462695	Y



Calibration

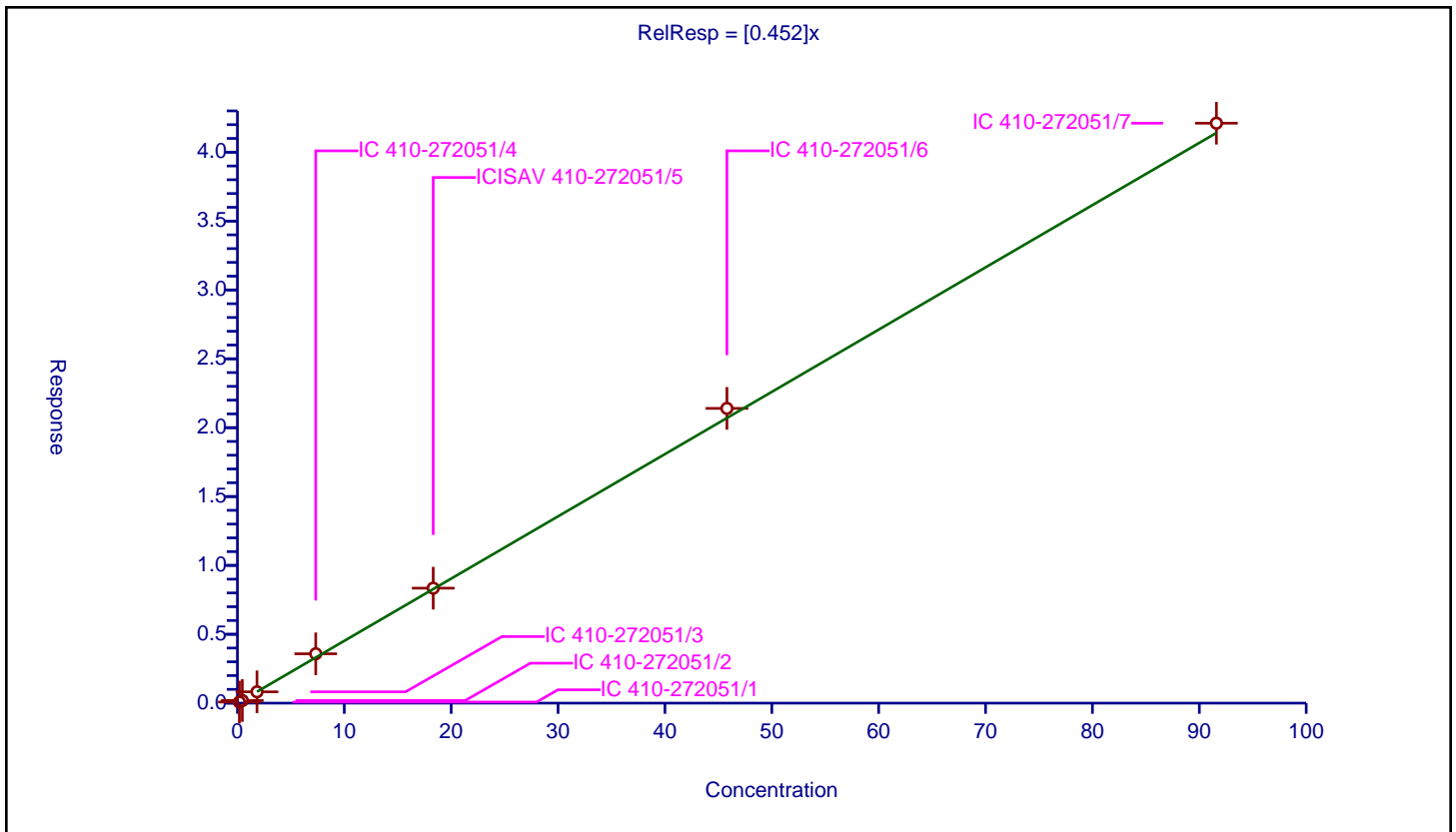
/ PFPrS

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

Curve Coefficients	
Intercept:	0
Slope:	0.452

Error Coefficients	
Standard Error:	3220000
Relative Standard Error:	5.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.1832	0.079499	10.0	2101154.0	0.433947	Y
2	IC 410-272051/2	0.458	0.18799	10.0	2137451.0	0.410459	Y
3	IC 410-272051/3	1.832	0.820821	10.0	1916434.0	0.448047	Y
4	IC 410-272051/4	7.328	3.582662	10.0	1863715.0	0.4889	Y
5	ICISAV 410-272051/5	18.32	8.347695	10.0	1843086.0	0.45566	Y
6	IC 410-272051/6	45.8	21.399921	10.0	1696732.0	0.467247	Y
7	IC 410-272051/7	91.6	42.107321	10.0	1612678.0	0.459687	Y



Calibration

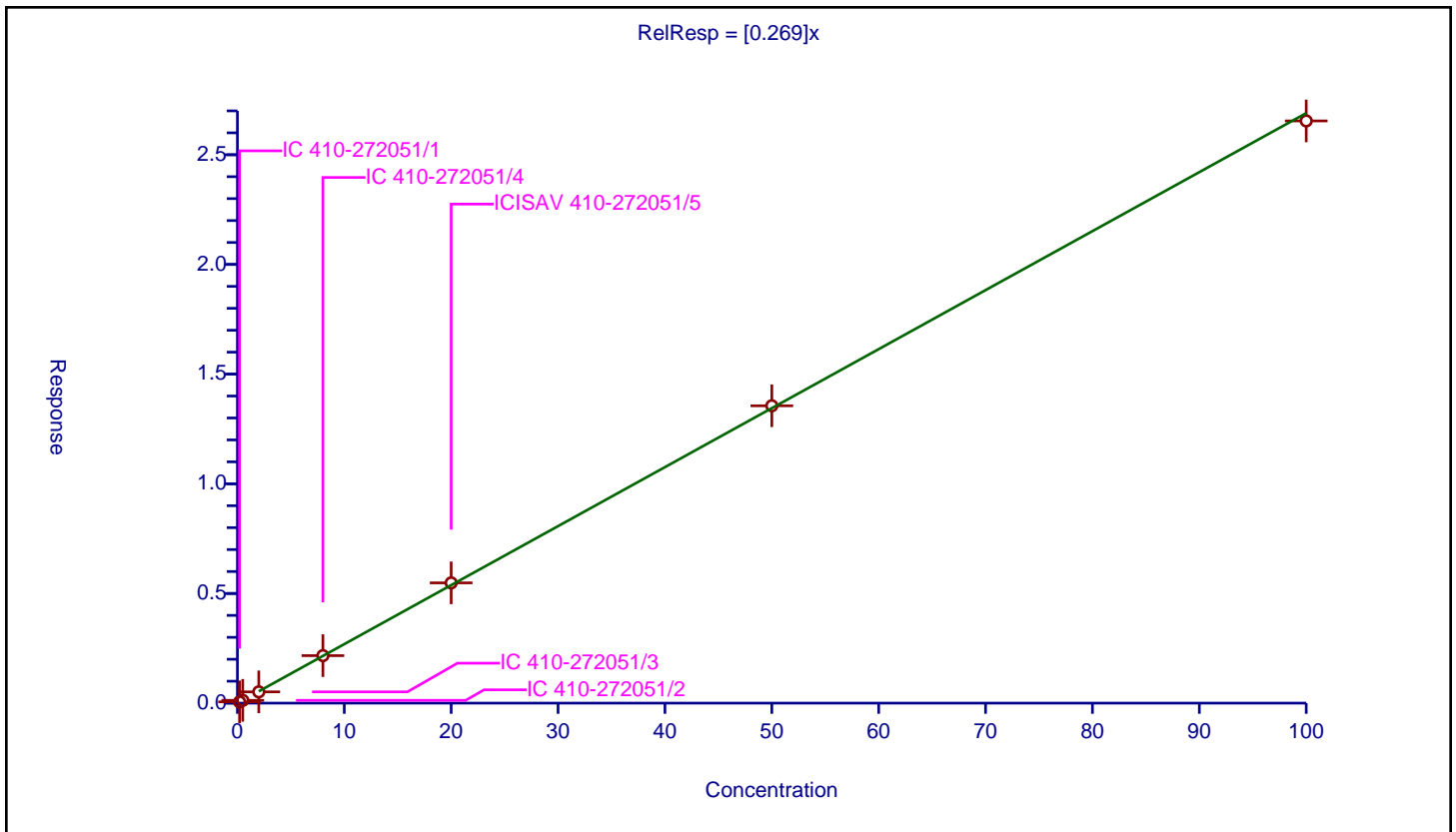
/ NVHOS

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

Curve Coefficients	
Intercept:	0
Slope:	0.269

Error Coefficients	
Standard Error:	3490000
Relative Standard Error:	4.7
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.058272	9.3	3284332.0	0.29136	Y
2	IC 410-272051/2	0.5	0.12658	9.3	3475553.0	0.253161	Y
3	IC 410-272051/3	2.0	0.513755	9.3	3035796.0	0.256878	Y
4	IC 410-272051/4	8.0	2.165798	9.3	3109208.0	0.270725	Y
5	ICISAV 410-272051/5	20.0	5.482198	9.3	3035528.0	0.27411	Y
6	IC 410-272051/6	50.0	13.556013	9.3	2777696.0	0.27112	Y
7	IC 410-272051/7	100.0	26.542294	9.3	2552580.0	0.265423	Y



Calibration

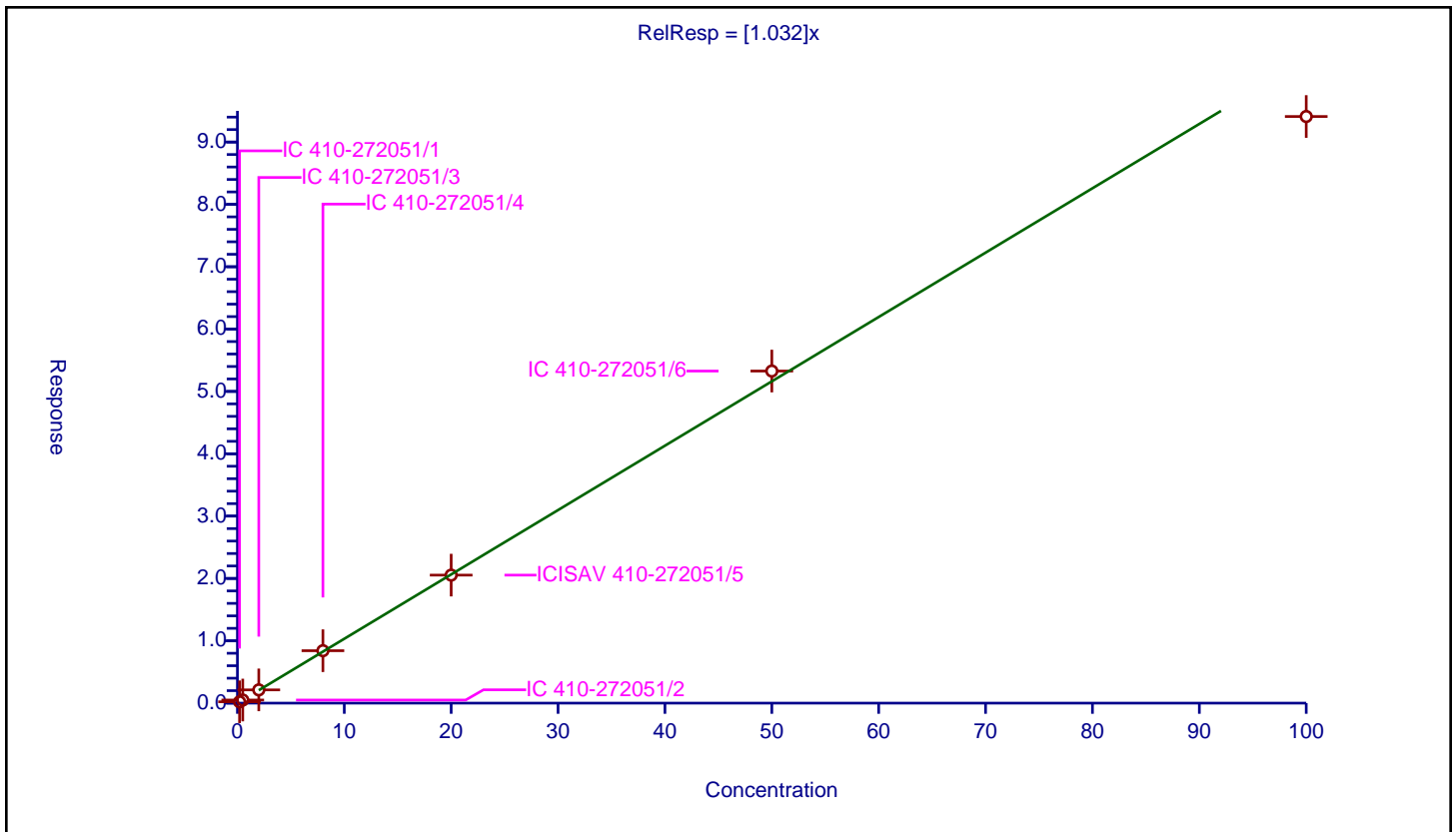
/ PFECA F

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:	7400000
Relative Standard Error:	4.7
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.215881	10.0	2101154.0	1.079407	Y
2	IC 410-272051/2	0.5	0.499754	10.0	2137451.0	0.999508	Y
3	IC 410-272051/3	2.0	2.125192	10.0	1916434.0	1.062596	Y
4	IC 410-272051/4	8.0	8.411919	10.0	1863715.0	1.05149	Y
5	ICISAV 410-272051/5	20.0	20.533903	10.0	1843086.0	1.026695	Y
6	IC 410-272051/6	50.0	53.268295	10.0	1696732.0	1.065366	Y
7	IC 410-272051/7	100.0	94.097433	10.0	1612678.0	0.940974	Y



Calibration

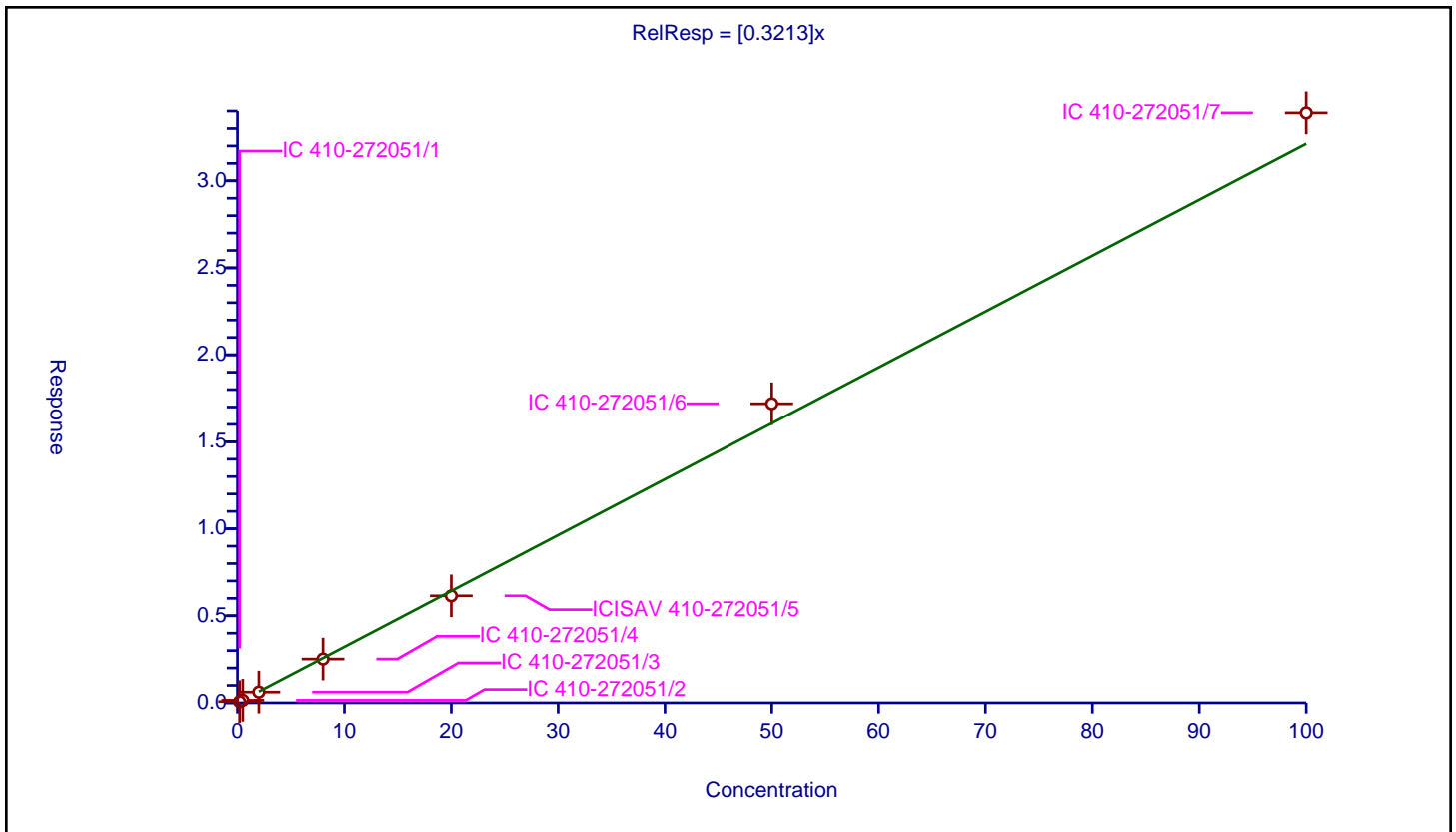
/ PFO2HxA

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

Curve Coefficients	
Intercept:	0
Slope:	0.3213

Error Coefficients	
Standard Error:	2580000
Relative Standard Error:	6.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.068391	10.0	2101154.0	0.341955	Y
2	IC 410-272051/2	0.5	0.147021	10.0	2137451.0	0.294042	Y
3	IC 410-272051/3	2.0	0.617224	10.0	1916434.0	0.308612	Y
4	IC 410-272051/4	8.0	2.513871	10.0	1863715.0	0.314234	Y
5	ICISAV 410-272051/5	20.0	6.145394	10.0	1843086.0	0.30727	Y
6	IC 410-272051/6	50.0	17.191041	10.0	1696732.0	0.343821	Y
7	IC 410-272051/7	100.0	33.890833	10.0	1612678.0	0.338908	Y



Calibration

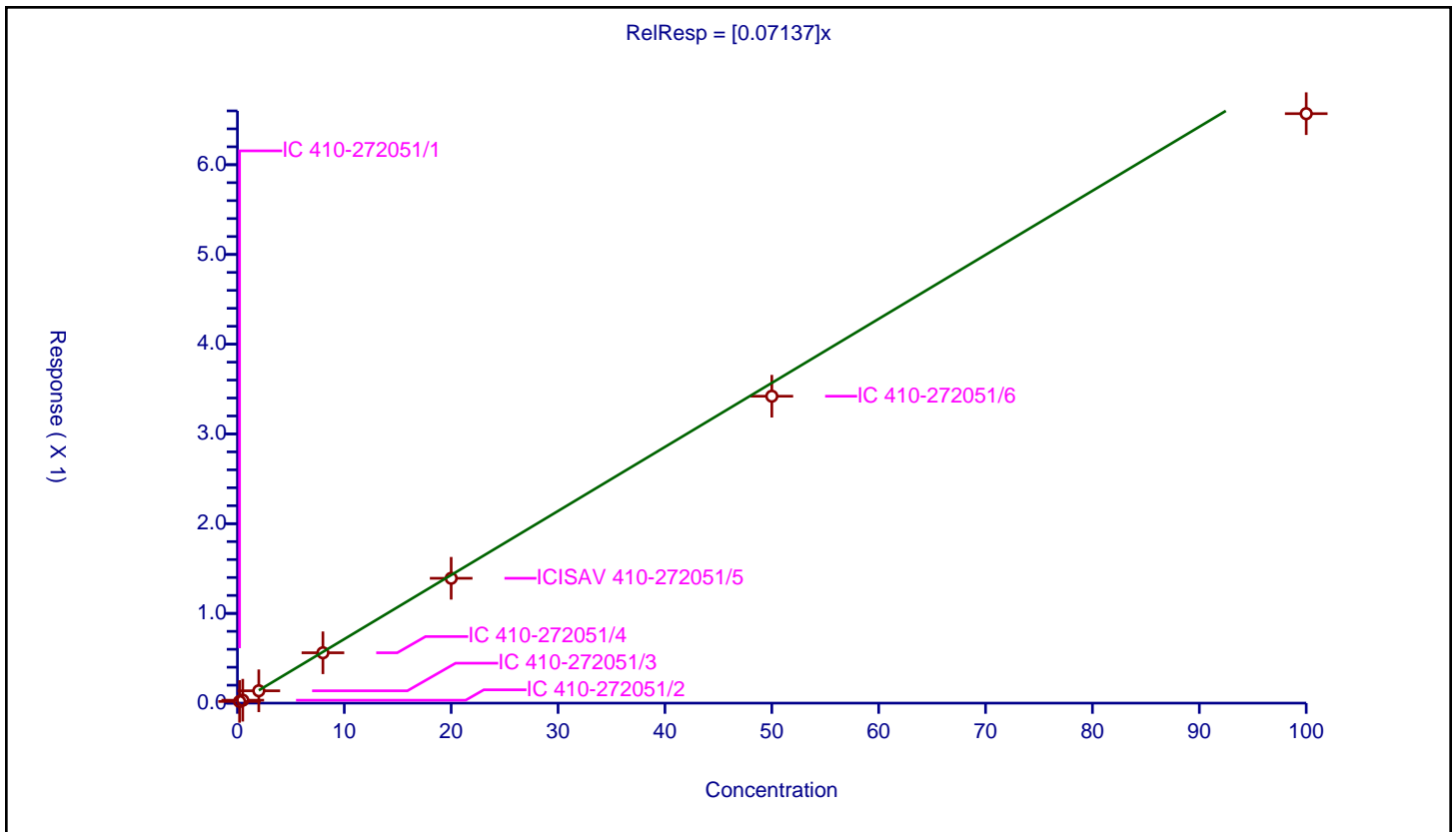
/ 3:3 FTCA

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

Curve Coefficients	
Intercept:	0
Slope:	0.07137

Error Coefficients	
Standard Error:	458000
Relative Standard Error:	13.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.976

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.018424	10.0	1784071.0	0.092121	Y
2	IC 410-272051/2	0.5	0.032431	10.0	1828787.0	0.064863	Y
3	IC 410-272051/3	2.0	0.137614	10.0	1664660.0	0.068807	Y
4	IC 410-272051/4	8.0	0.561016	10.0	1682197.0	0.070127	Y
5	ICISAV 410-272051/5	20.0	1.391216	10.0	1536670.0	0.069561	Y
6	IC 410-272051/6	50.0	3.420387	10.0	1544486.0	0.068408	Y
7	IC 410-272051/7	100.0	6.569064	10.0	1465737.0	0.065691	Y



Calibration

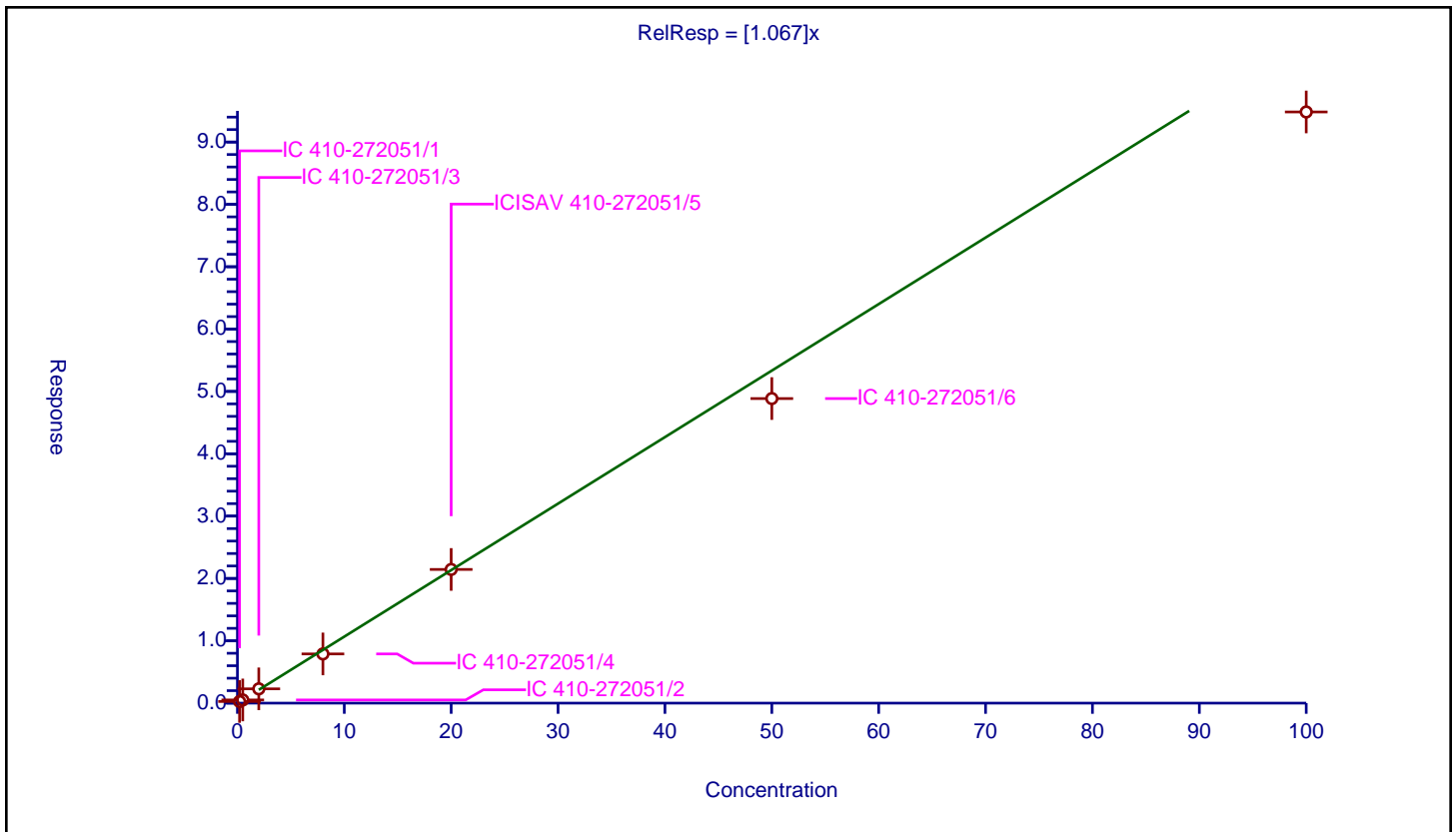
/ Perfluoropentanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.067

Error Coefficients	
Standard Error:	6620000
Relative Standard Error:	11.9
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.262462	10.0	1784071.0	1.312308	Y
2	IC 410-272051/2	0.5	0.512564	10.0	1828787.0	1.025128	Y
3	IC 410-272051/3	2.0	2.290864	10.0	1664660.0	1.145432	Y
4	IC 410-272051/4	8.0	7.894402	10.0	1682197.0	0.9868	Y
5	ICISAV 410-272051/5	20.0	21.443752	10.0	1536670.0	1.072188	Y
6	IC 410-272051/6	50.0	48.857244	10.0	1544486.0	0.977145	Y
7	IC 410-272051/7	100.0	94.829018	10.0	1465737.0	0.94829	Y



Calibration

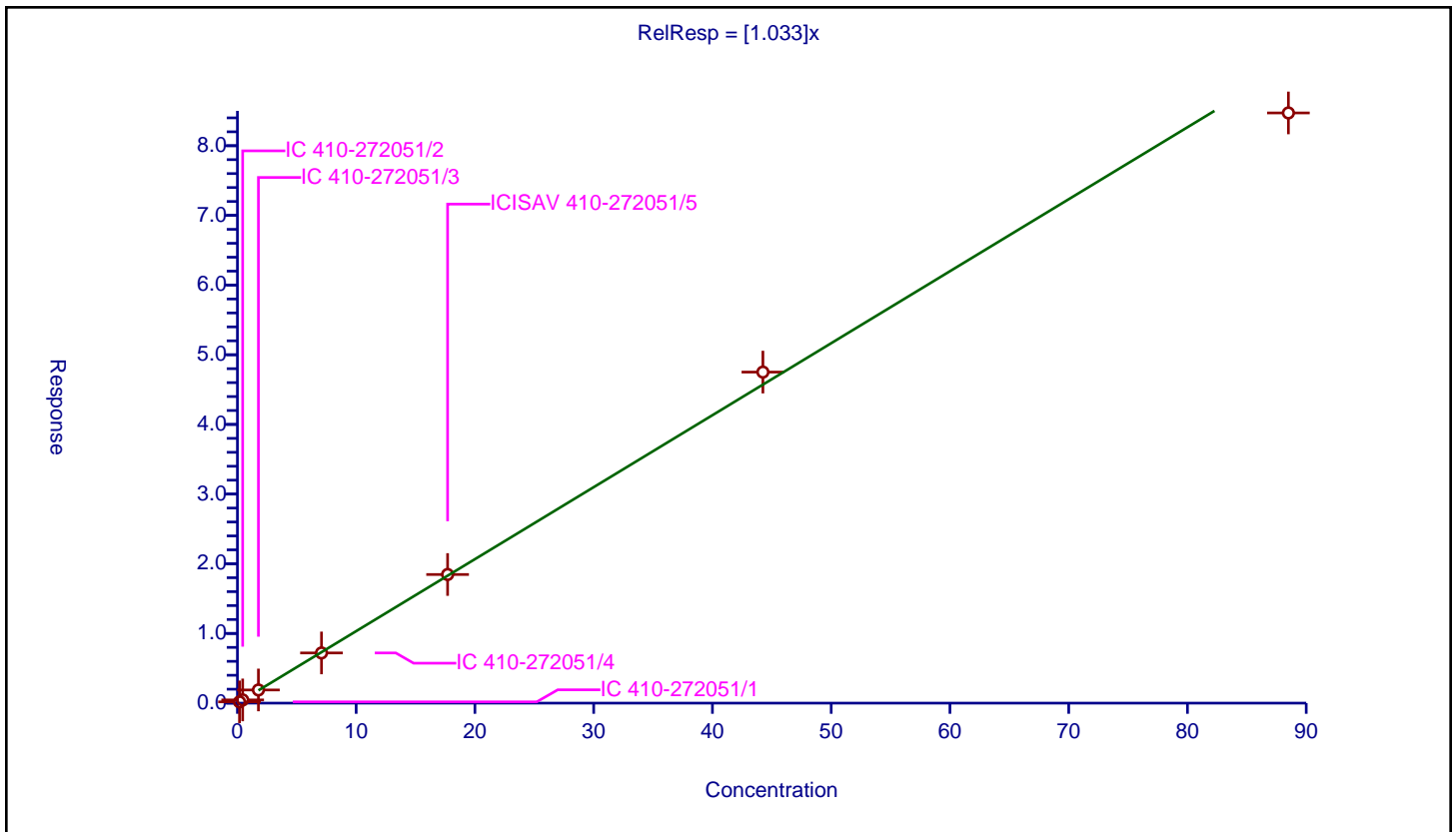
/ Perfluorobutanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.033

Error Coefficients	
Standard Error:	11400000
Relative Standard Error:	3.8
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.177	0.182614	9.3	3284332.0	1.03172	Y
2	IC 410-272051/2	0.4425	0.46053	9.3	3475553.0	1.040745	Y
3	IC 410-272051/3	1.77	1.891121	9.3	3035796.0	1.06843	Y
4	IC 410-272051/4	7.08	7.201936	9.3	3109208.0	1.017223	Y
5	ICISAV 410-272051/5	17.7	18.460451	9.3	3035528.0	1.042963	Y
6	IC 410-272051/6	44.25	47.511906	9.3	2777696.0	1.073715	Y
7	IC 410-272051/7	88.5	84.705534	9.3	2552580.0	0.957125	Y



Calibration

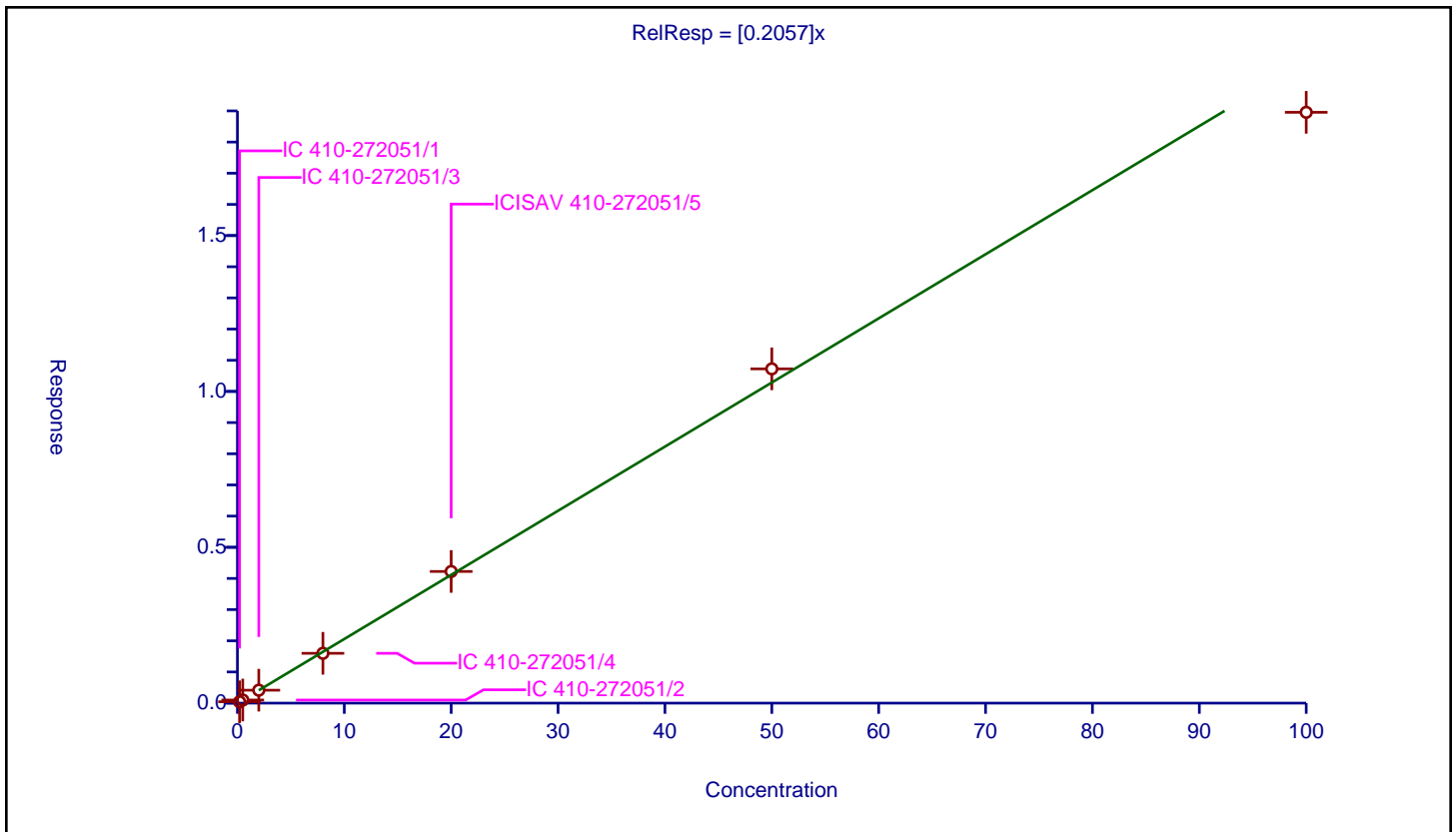
/ PEPA

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

Curve Coefficients	
Intercept:	0
Slope:	0.2057

Error Coefficients	
Standard Error:	1490000
Relative Standard Error:	4.9
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.043614	10.0	2101154.0	0.218071	Y
2	IC 410-272051/2	0.5	0.099661	10.0	2137451.0	0.199322	Y
3	IC 410-272051/3	2.0	0.41513	10.0	1916434.0	0.207565	Y
4	IC 410-272051/4	8.0	1.59841	10.0	1863715.0	0.199801	Y
5	ICISAV 410-272051/5	20.0	4.224263	10.0	1843086.0	0.211213	Y
6	IC 410-272051/6	50.0	10.72411	10.0	1696732.0	0.214482	Y
7	IC 410-272051/7	100.0	18.954305	10.0	1612678.0	0.189543	Y



Calibration

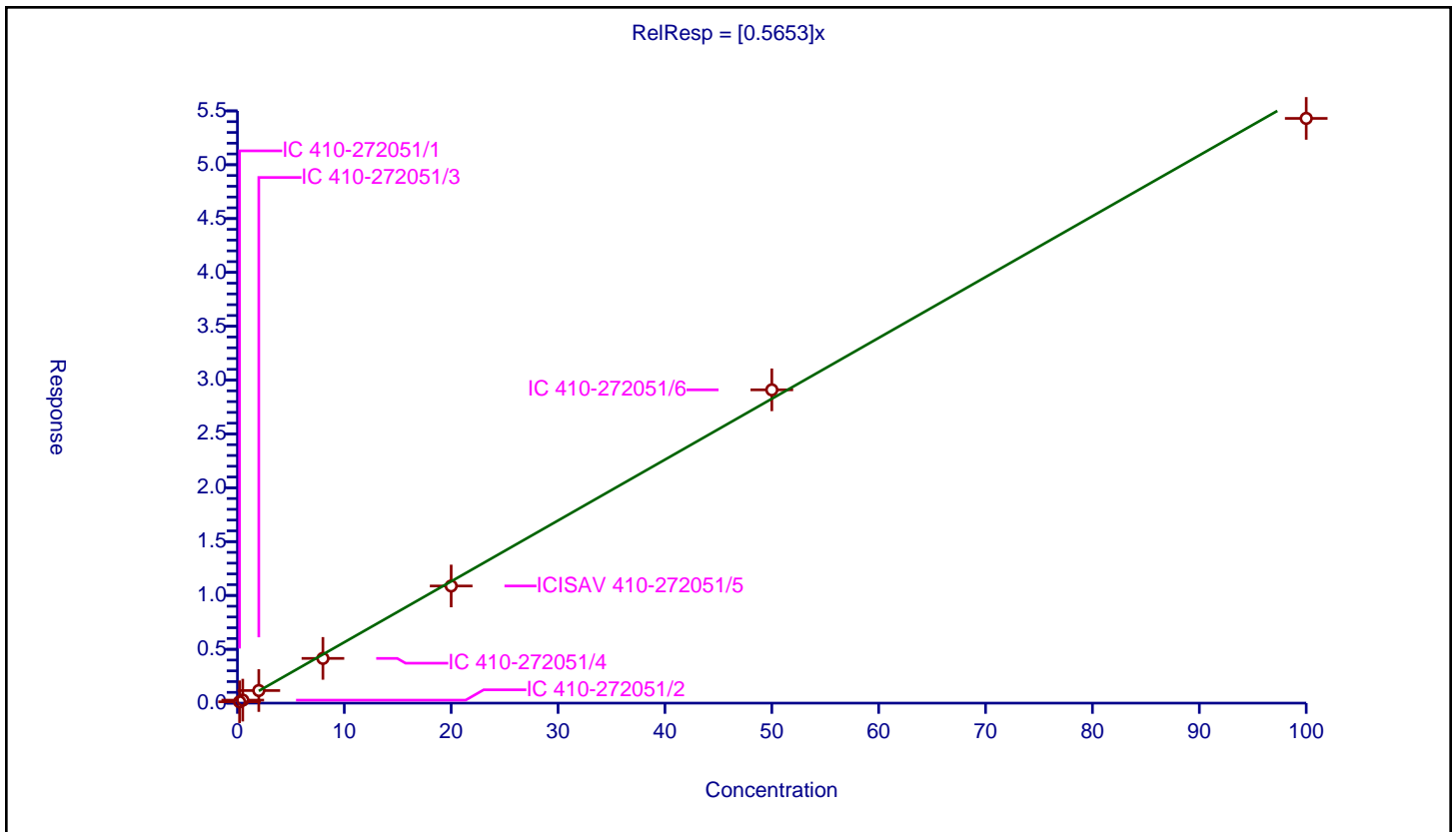
/ PFECA A

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

Curve Coefficients	
Intercept:	0
Slope:	0.5653

Error Coefficients	
Standard Error:	7220000
Relative Standard Error:	6.4
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.125611	9.3	3284332.0	0.628055	Y
2	IC 410-272051/2	0.5	0.277915	9.3	3475553.0	0.555829	Y
3	IC 410-272051/3	2.0	1.169495	9.3	3035796.0	0.584748	Y
4	IC 410-272051/4	8.0	4.155237	9.3	3109208.0	0.519405	Y
5	ICISAV 410-272051/5	20.0	10.879325	9.3	3035528.0	0.543966	Y
6	IC 410-272051/6	50.0	29.094709	9.3	2777696.0	0.581894	Y
7	IC 410-272051/7	100.0	54.302049	9.3	2552580.0	0.54302	Y



Calibration

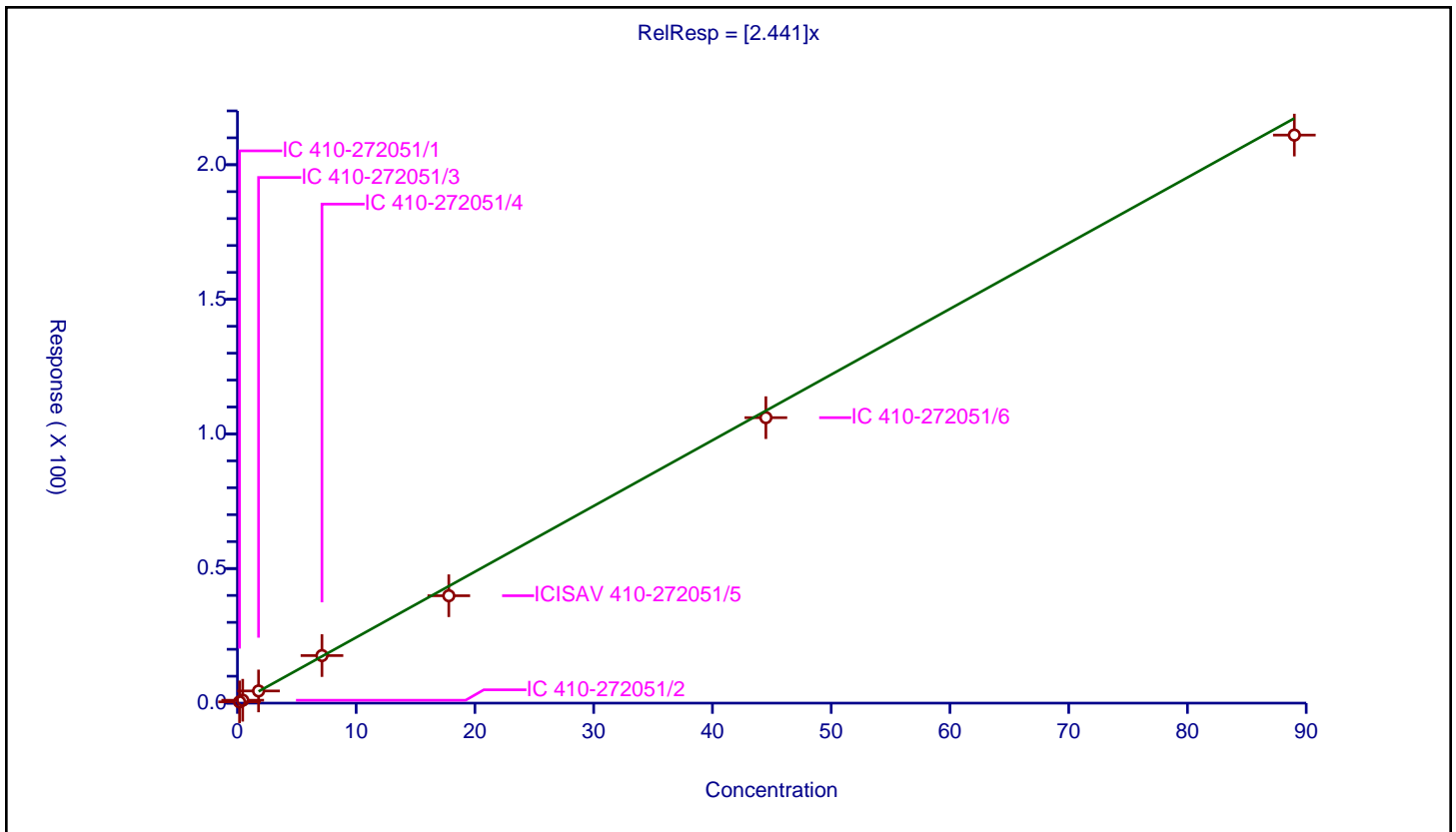
/ PES

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

Curve Coefficients	
Intercept:	0
Slope:	2.441

Error Coefficients	
Standard Error:	27600000
Relative Standard Error:	5.3
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.178	0.470565	9.3	3284332.0	2.643625	Y
2	IC 410-272051/2	0.445	1.078219	9.3	3475553.0	2.422964	Y
3	IC 410-272051/3	1.78	4.525027	9.3	3035796.0	2.54215	Y
4	IC 410-272051/4	7.12	17.669377	9.3	3109208.0	2.481654	Y
5	ICISAV 410-272051/5	17.8	39.891926	9.3	3035528.0	2.241119	Y
6	IC 410-272051/6	44.5	106.045997	9.3	2777696.0	2.383056	Y
7	IC 410-272051/7	89.0	211.013287	9.3	2552580.0	2.370936	Y



Calibration

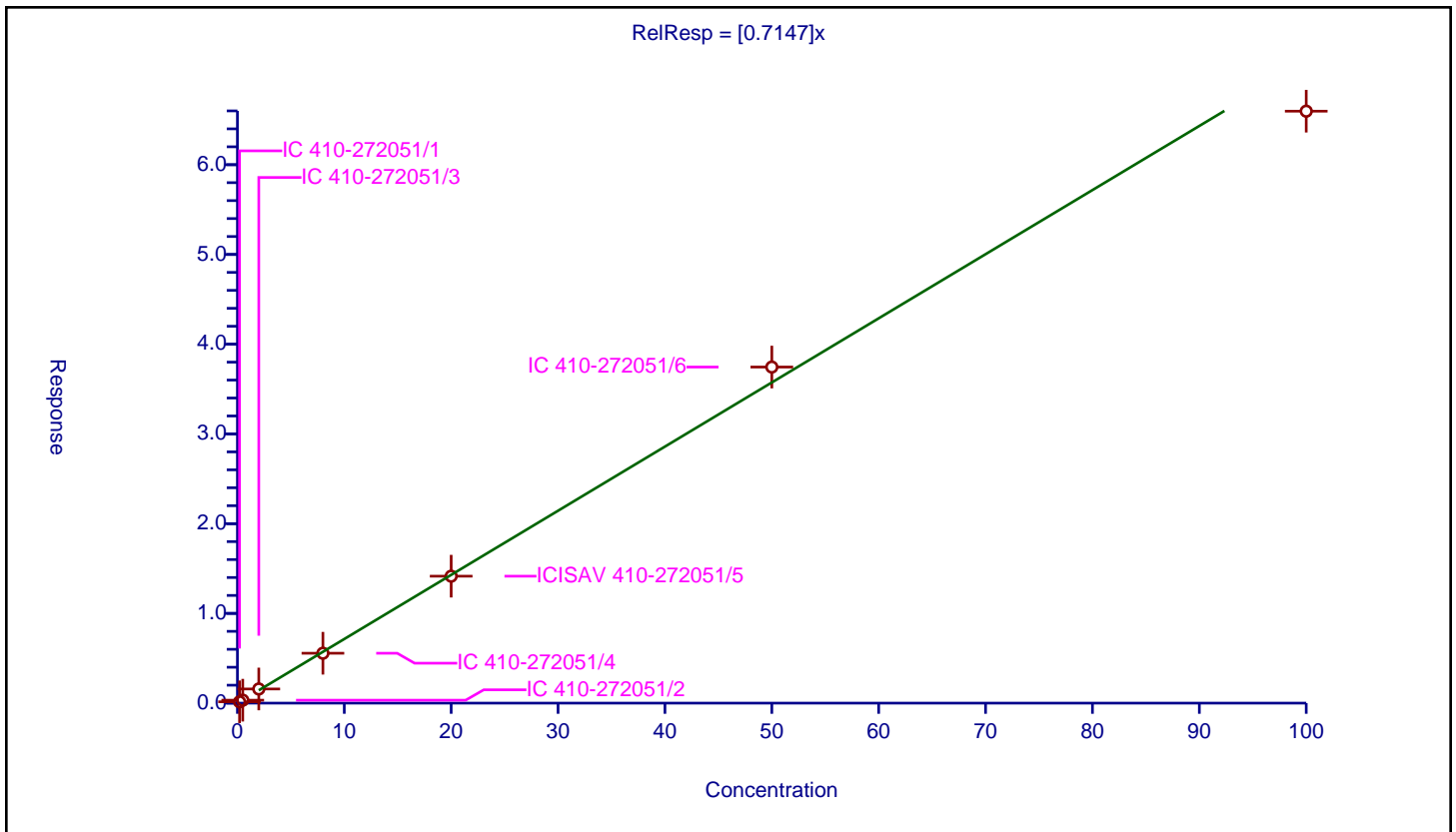
/ PFECA B

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

Curve Coefficients	
Intercept:	0
Slope:	0.7147

Error Coefficients	
Standard Error:	8930000
Relative Standard Error:	6.8
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.149272	9.3	3284332.0	0.74636	Y
2	IC 410-272051/2	0.5	0.328638	9.3	3475553.0	0.657276	Y
3	IC 410-272051/3	2.0	1.576079	9.3	3035796.0	0.78804	Y
4	IC 410-272051/4	8.0	5.561127	9.3	3109208.0	0.695141	Y
5	ICISAV 410-272051/5	20.0	14.146409	9.3	3035528.0	0.70732	Y
6	IC 410-272051/6	50.0	37.452353	9.3	2777696.0	0.749047	Y
7	IC 410-272051/7	100.0	65.967964	9.3	2552580.0	0.65968	Y



Calibration

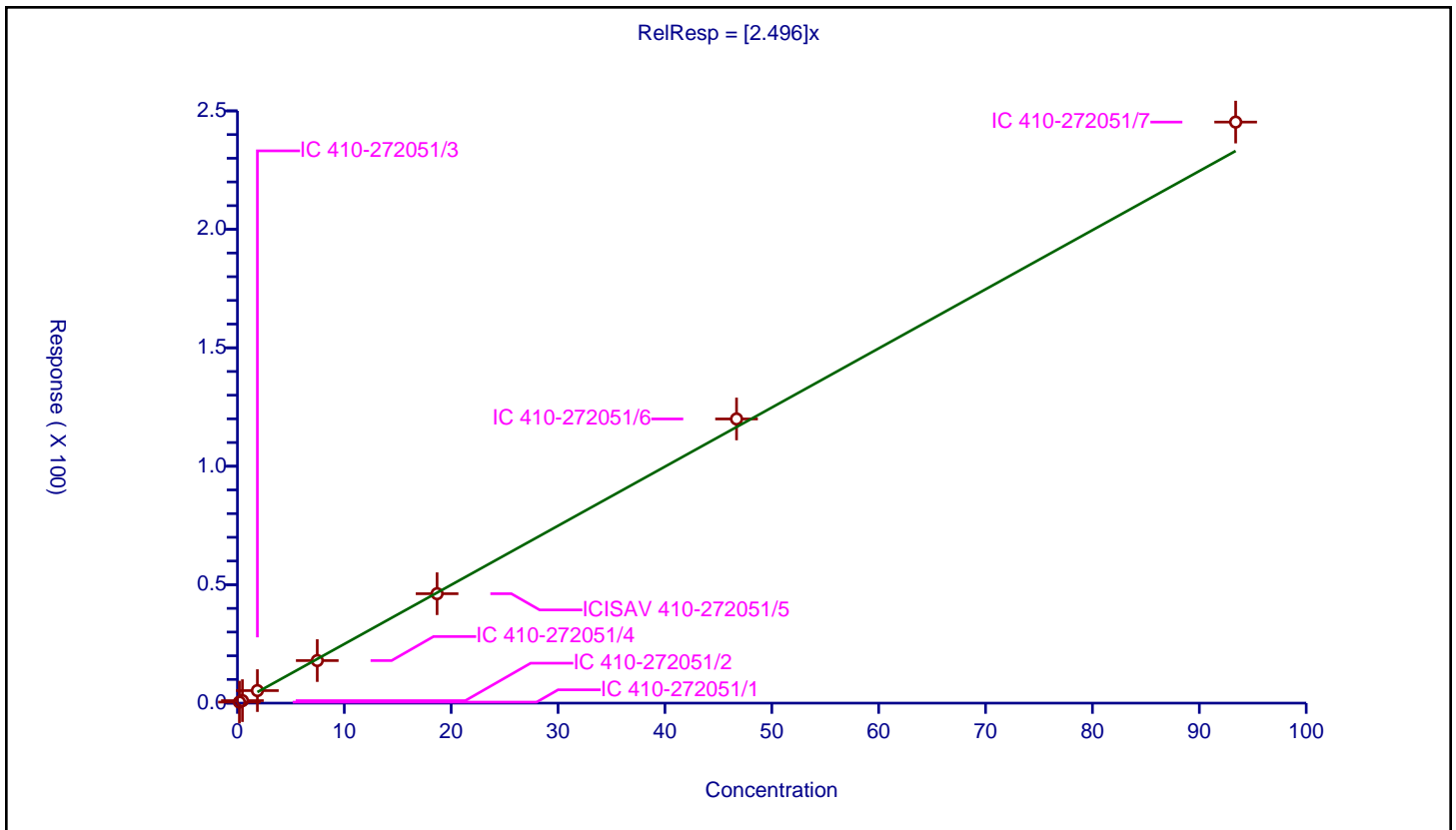
/ 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)

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

Curve Coefficients	
Intercept:	0
Slope:	2.496

Error Coefficients	
Standard Error:	1370000
Relative Standard Error:	8.0
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.1868	0.432662	9.34	157242.0	2.316175	Y
2	IC 410-272051/2	0.467	1.050069	9.34	158476.0	2.248542	Y
3	IC 410-272051/3	1.868	5.292686	9.34	141483.0	2.833344	Y
4	IC 410-272051/4	7.472	17.960335	9.34	148095.0	2.403685	Y
5	ICISAV 410-272051/5	18.68	46.194319	9.34	149442.0	2.472929	Y
6	IC 410-272051/6	46.7	119.957967	9.34	134737.0	2.568693	Y
7	IC 410-272051/7	93.4	245.274716	9.34	105491.0	2.626068	Y



Calibration

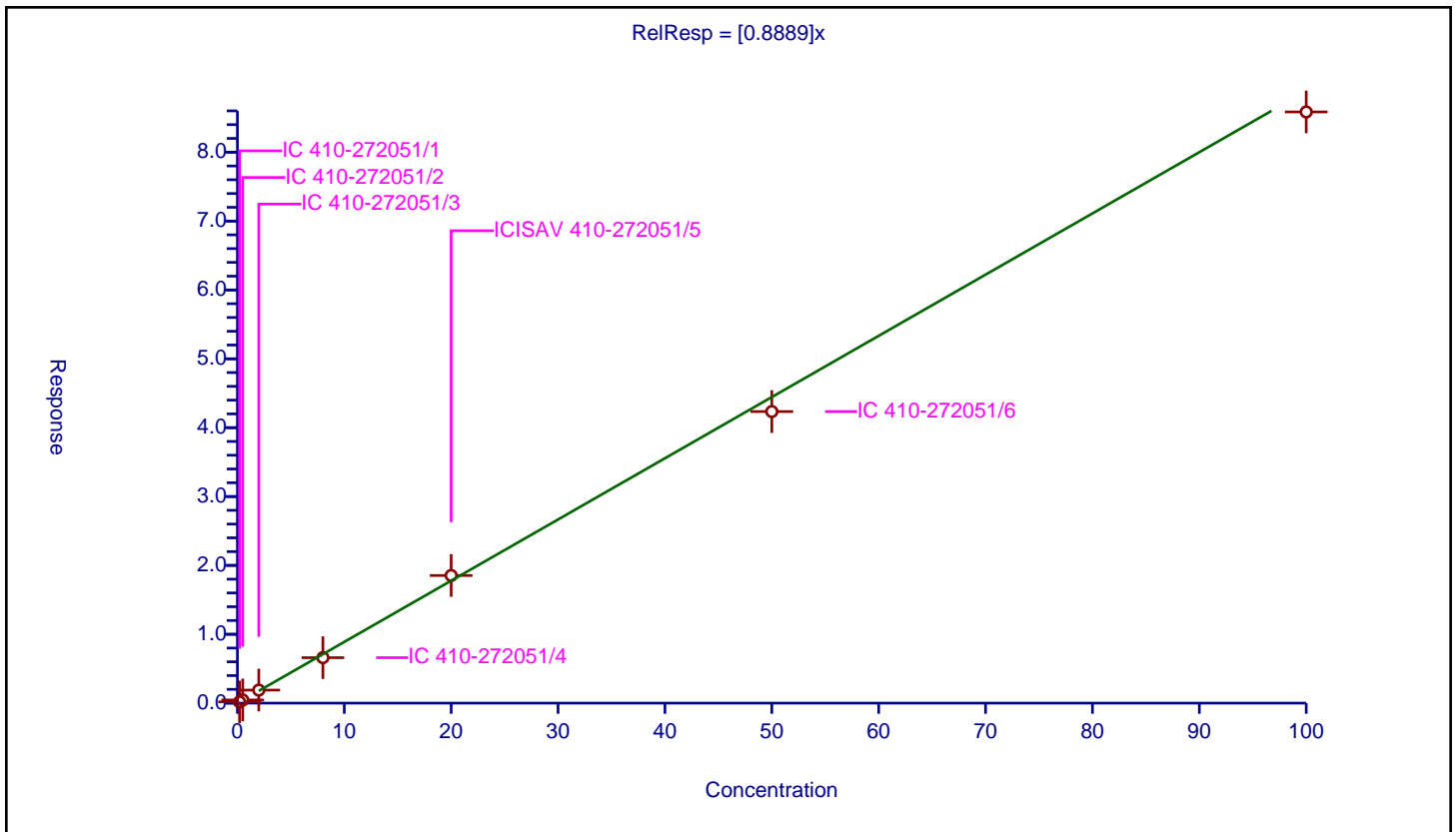
/ Perfluorohexanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.8889

Error Coefficients	
Standard Error:	8170000
Relative Standard Error:	5.1
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.180323	10.0	2797591.0	0.901615	Y
2	IC 410-272051/2	0.5	0.458684	10.0	2786208.0	0.917369	Y
3	IC 410-272051/3	2.0	1.892369	10.0	2385095.0	0.946185	Y
4	IC 410-272051/4	8.0	6.600135	10.0	2332334.0	0.825017	Y
5	ICISAV 410-272051/5	20.0	18.533368	10.0	2330898.0	0.926668	Y
6	IC 410-272051/6	50.0	42.340334	10.0	2280457.0	0.846807	Y
7	IC 410-272051/7	100.0	85.845892	10.0	1968497.0	0.858459	Y



Calibration

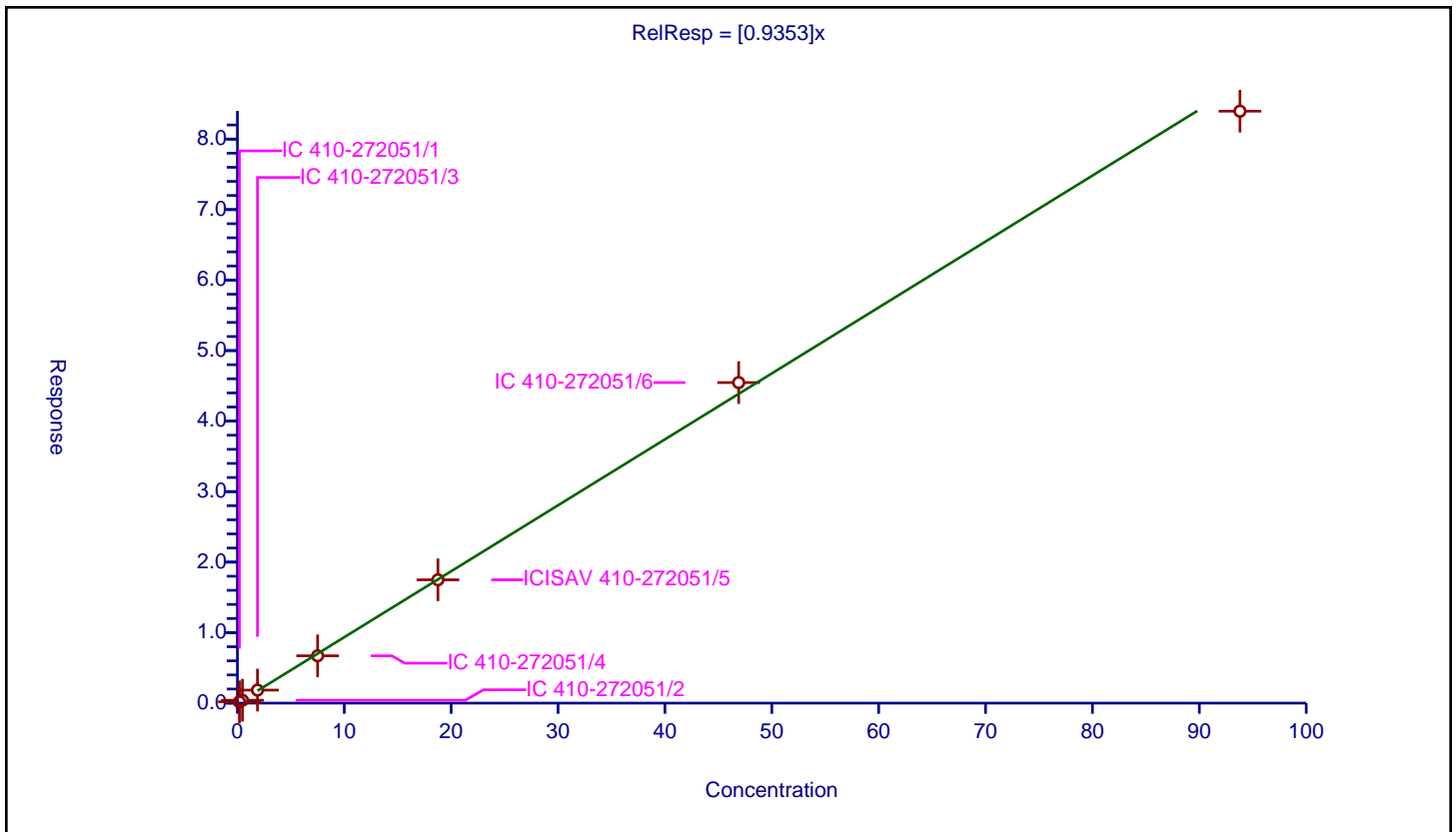
/ Perfluoropentanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.9353

Error Coefficients	
Standard Error:	11200000
Relative Standard Error:	5.2
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.1876	0.186525	9.3	3284332.0	0.994269	Y
2	IC 410-272051/2	0.469	0.410644	9.3	3475553.0	0.875574	Y
3	IC 410-272051/3	1.876	1.849385	9.3	3035796.0	0.985813	Y
4	IC 410-272051/4	7.504	6.710352	9.3	3109208.0	0.894237	Y
5	ICISAV 410-272051/5	18.76	17.493869	9.3	3035528.0	0.932509	Y
6	IC 410-272051/6	46.9	45.465555	9.3	2777696.0	0.969415	Y
7	IC 410-272051/7	93.8	83.959259	9.3	2552580.0	0.895088	Y



Calibration

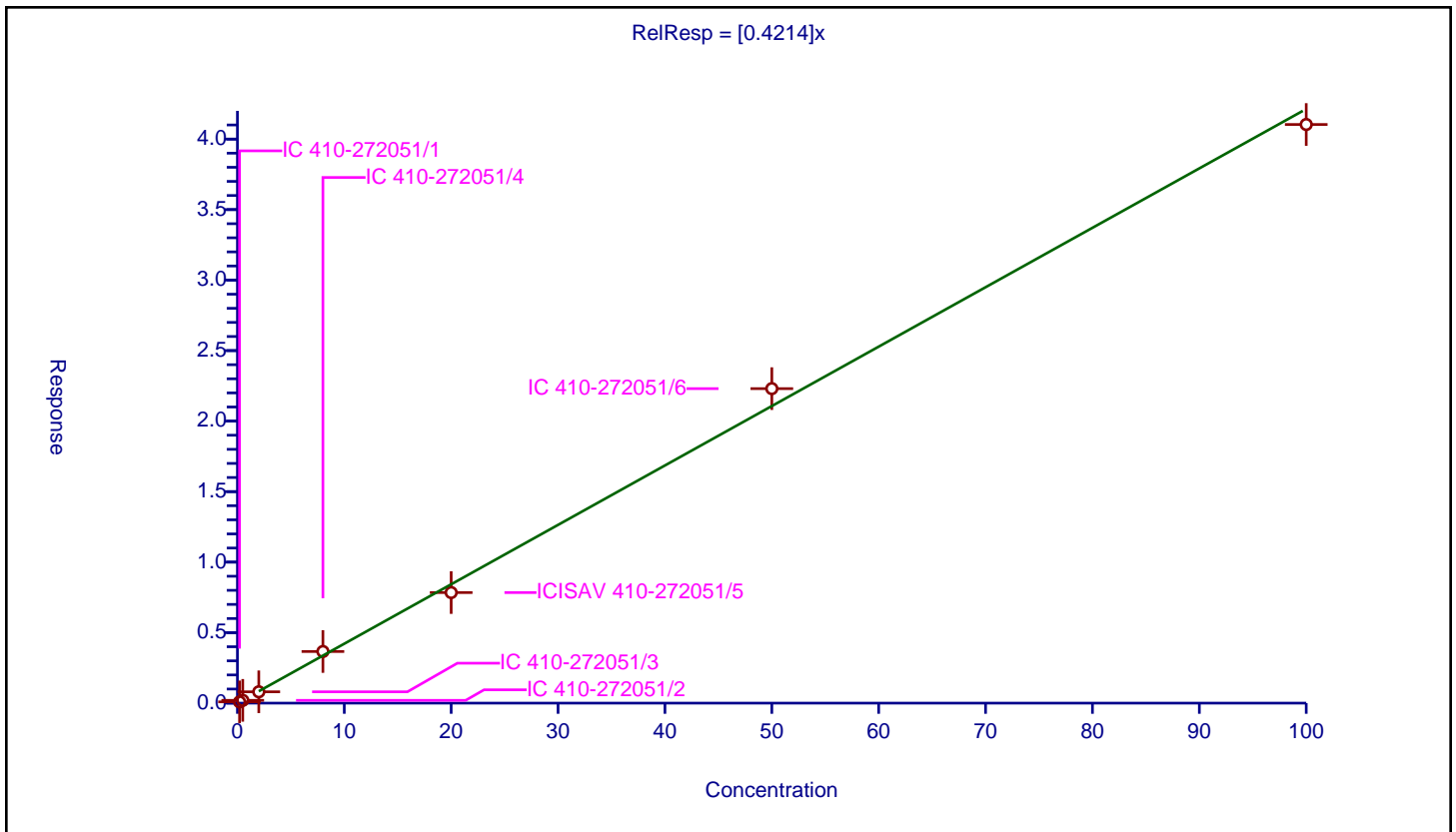
/ PFO3OA

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

Curve Coefficients	
Intercept:	0
Slope:	0.4214

Error Coefficients	
Standard Error:	3180000
Relative Standard Error:	6.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.089794	10.0	2101154.0	0.448968	Y
2	IC 410-272051/2	0.5	0.196444	10.0	2137451.0	0.392889	Y
3	IC 410-272051/3	2.0	0.802924	10.0	1916434.0	0.401462	Y
4	IC 410-272051/4	8.0	3.661472	10.0	1863715.0	0.457684	Y
5	ICISAV 410-272051/5	20.0	7.84073	10.0	1843086.0	0.392037	Y
6	IC 410-272051/6	50.0	22.303122	10.0	1696732.0	0.446062	Y
7	IC 410-272051/7	100.0	41.035445	10.0	1612678.0	0.410354	Y



Calibration

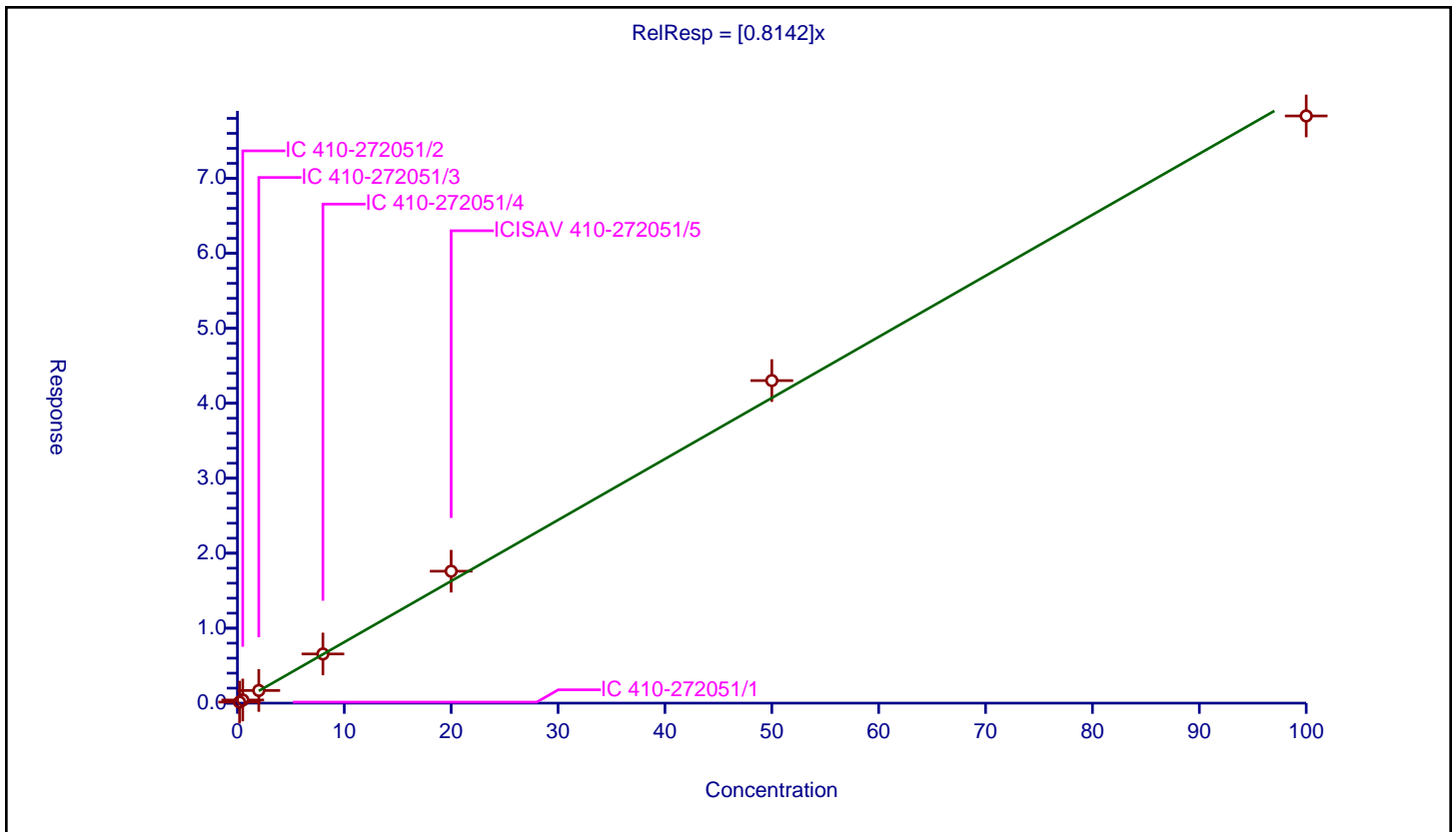
/ Perfluoro(2-propoxypropanoic) acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.8142

Error Coefficients	
Standard Error:	2480000
Relative Standard Error:	8.2
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.135951	10.0	758656.0	0.679755	Y
2	IC 410-272051/2	0.5	0.416987	10.0	808010.0	0.833975	Y
3	IC 410-272051/3	2.0	1.684289	10.0	692316.0	0.842144	Y
4	IC 410-272051/4	8.0	6.558822	10.0	722488.0	0.819853	Y
5	ICISAV 410-272051/5	20.0	17.599637	10.0	690483.0	0.879982	Y
6	IC 410-272051/6	50.0	43.02411	10.0	677806.0	0.860482	Y
7	IC 410-272051/7	100.0	78.324549	10.0	659673.0	0.783245	Y



Calibration

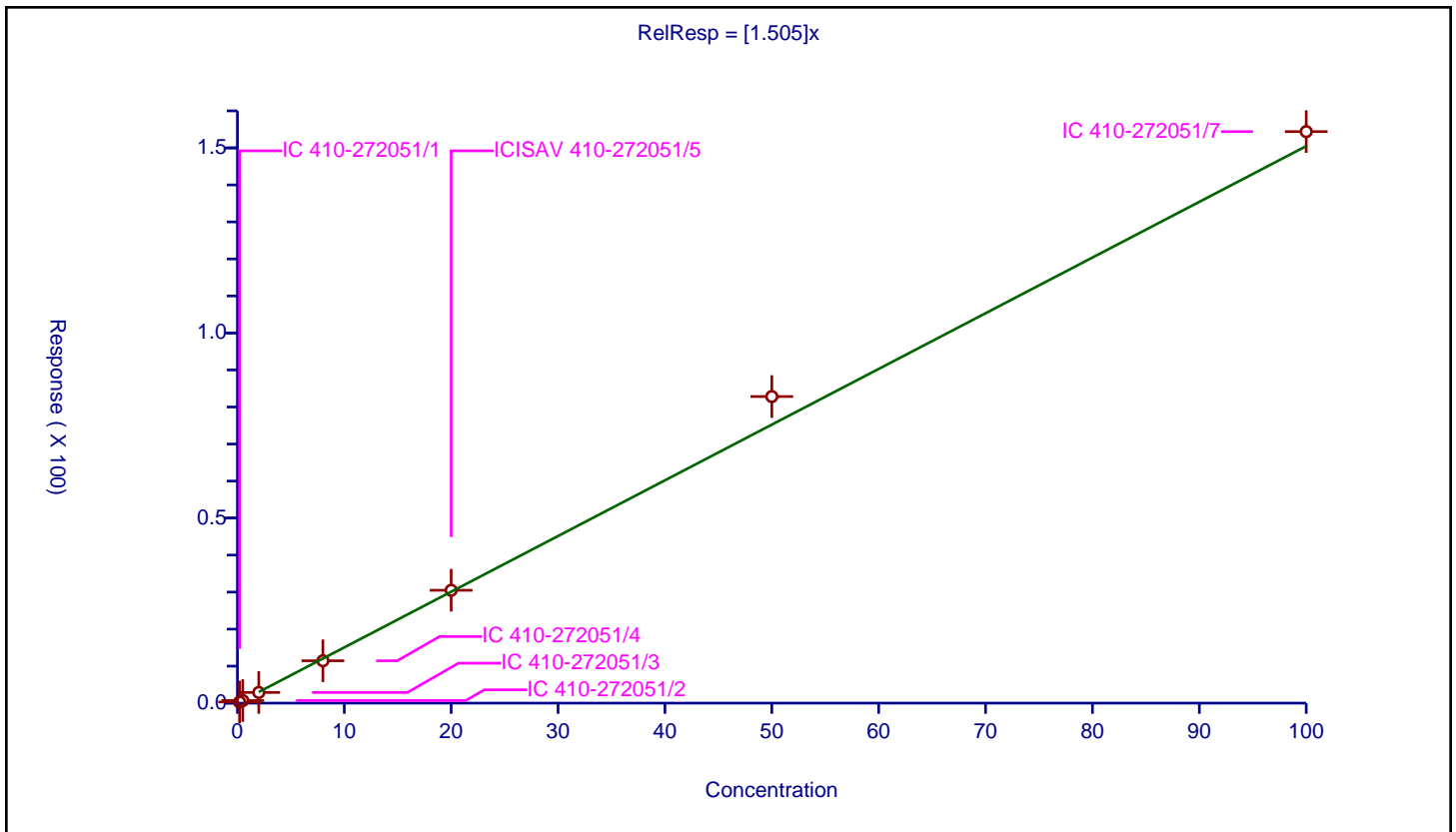
/ Hydro-PS Acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.505

Error Coefficients	
Standard Error:	20500000
Relative Standard Error:	6.1
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.310094	9.3	3284332.0	1.550471	Y
2	IC 410-272051/2	0.5	0.693266	9.3	3475553.0	1.386531	Y
3	IC 410-272051/3	2.0	2.881077	9.3	3035796.0	1.440538	Y
4	IC 410-272051/4	8.0	11.444008	9.3	3109208.0	1.430501	Y
5	ICISAV 410-272051/5	20.0	30.490444	9.3	3035528.0	1.524522	Y
6	IC 410-272051/6	50.0	82.82776	9.3	2777696.0	1.656555	Y
7	IC 410-272051/7	100.0	154.402542	9.3	2552580.0	1.544025	Y



Calibration

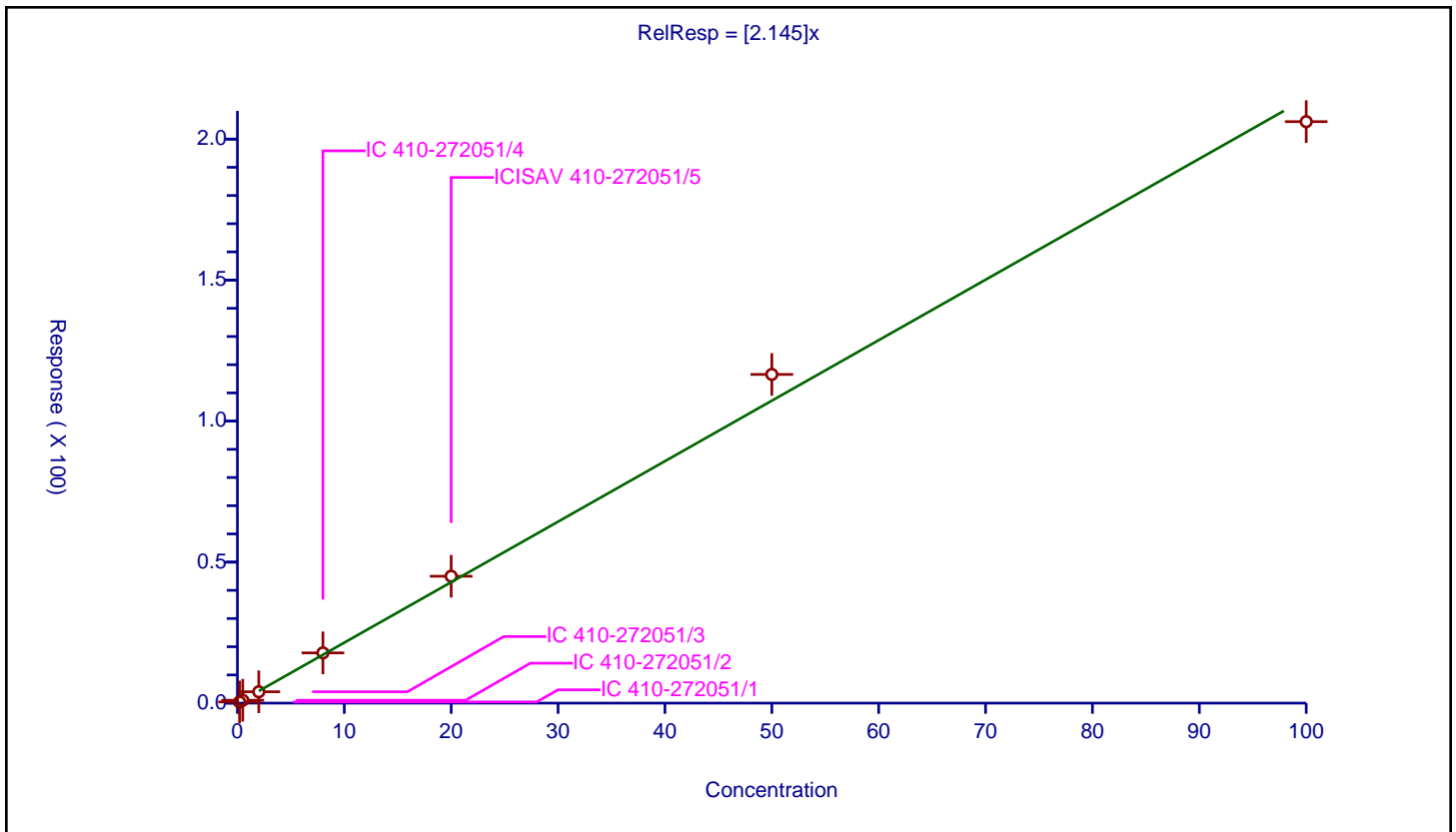
/ Hydro-EVE Acid

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

Curve Coefficients	
Intercept:	0
Slope:	2.145

Error Coefficients	
Standard Error:	16200000
Relative Standard Error:	5.7
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.415881	10.0	2101154.0	2.079405	Y
2	IC 410-272051/2	0.5	1.024379	10.0	2137451.0	2.048758	Y
3	IC 410-272051/3	2.0	4.030935	10.0	1916434.0	2.015467	Y
4	IC 410-272051/4	8.0	17.814113	10.0	1863715.0	2.226764	Y
5	ICISAV 410-272051/5	20.0	45.000022	10.0	1843086.0	2.250001	Y
6	IC 410-272051/6	50.0	116.555526	10.0	1696732.0	2.331111	Y
7	IC 410-272051/7	100.0	206.184303	10.0	1612678.0	2.061843	Y



Calibration

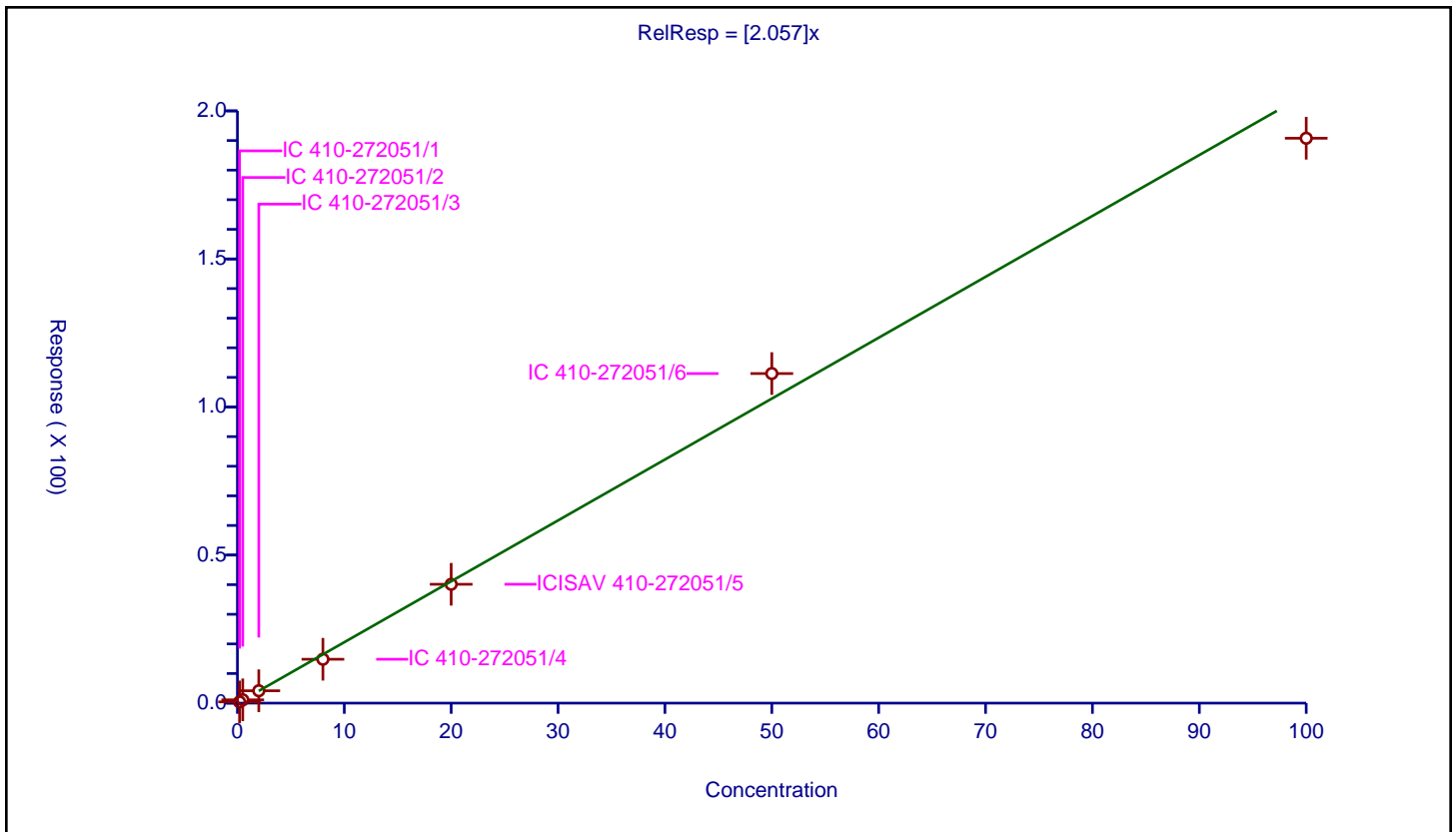
/ R-PSDCA

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

Curve Coefficients	
Intercept:	0
Slope:	2.057

Error Coefficients	
Standard Error:	26000000
Relative Standard Error:	6.9
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.420168	9.3	3284332.0	2.10084	Y
2	IC 410-272051/2	0.5	1.106575	9.3	3475553.0	2.21315	Y
3	IC 410-272051/3	2.0	4.178238	9.3	3035796.0	2.089119	Y
4	IC 410-272051/4	8.0	14.821058	9.3	3109208.0	1.852632	Y
5	ICISAV 410-272051/5	20.0	40.140608	9.3	3035528.0	2.00703	Y
6	IC 410-272051/6	50.0	111.29767	9.3	2777696.0	2.225953	Y
7	IC 410-272051/7	100.0	190.761447	9.3	2552580.0	1.907614	Y



Calibration

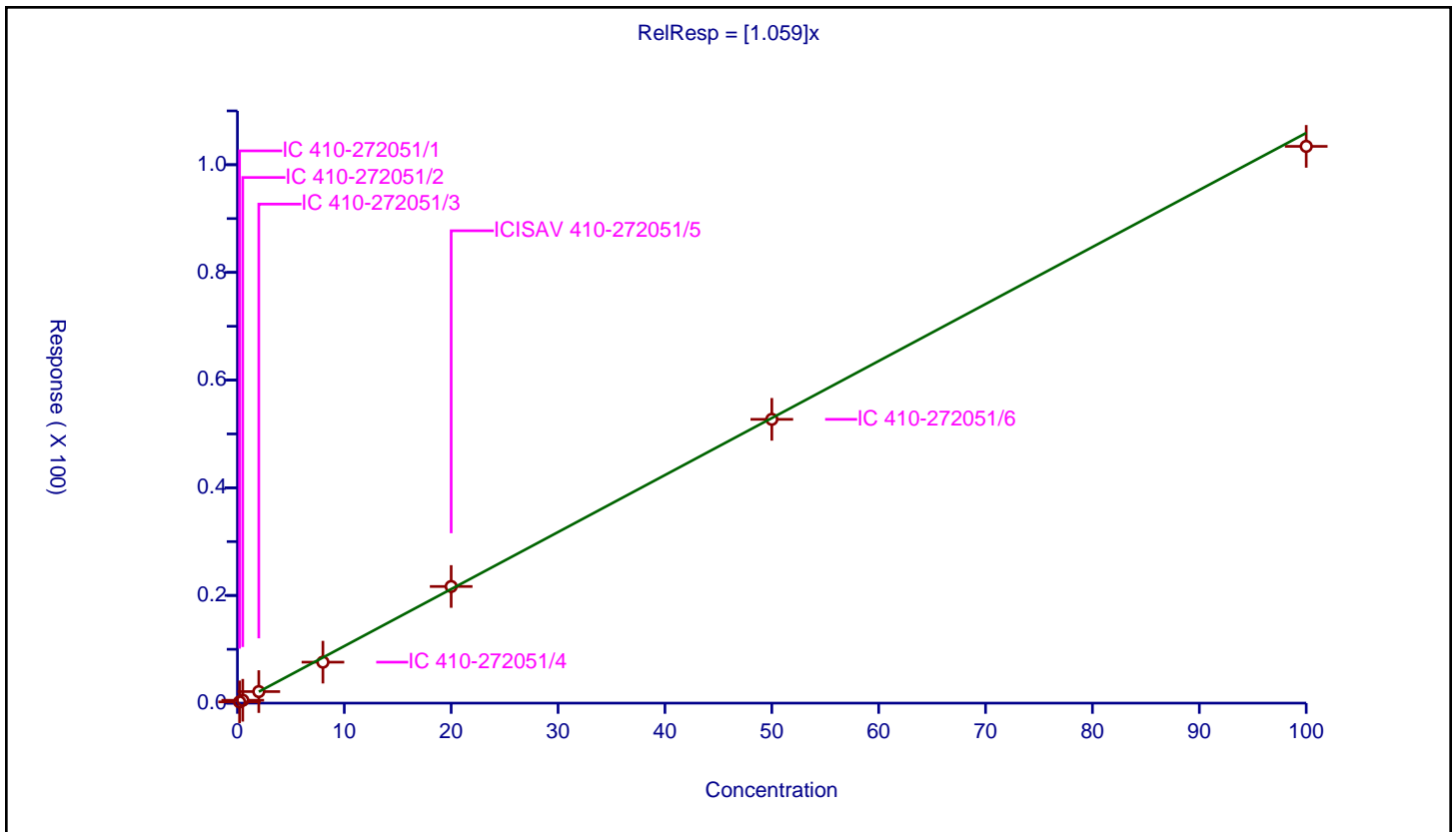
/ Perfluoroheptanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.059

Error Coefficients	
Standard Error:	8350000
Relative Standard Error:	5.7
Correlation Coefficient:	0.980
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.230992	10.0	2830440.0	1.154962	Y
2	IC 410-272051/2	0.5	0.530888	10.0	2679848.0	1.061777	Y
3	IC 410-272051/3	2.0	2.146302	10.0	2409861.0	1.073151	Y
4	IC 410-272051/4	8.0	7.611722	10.0	2448622.0	0.951465	Y
5	ICISAV 410-272051/5	20.0	21.662255	10.0	2128681.0	1.083113	Y
6	IC 410-272051/6	50.0	52.711653	10.0	2044845.0	1.054233	Y
7	IC 410-272051/7	100.0	103.409671	10.0	1609868.0	1.034097	Y



Calibration

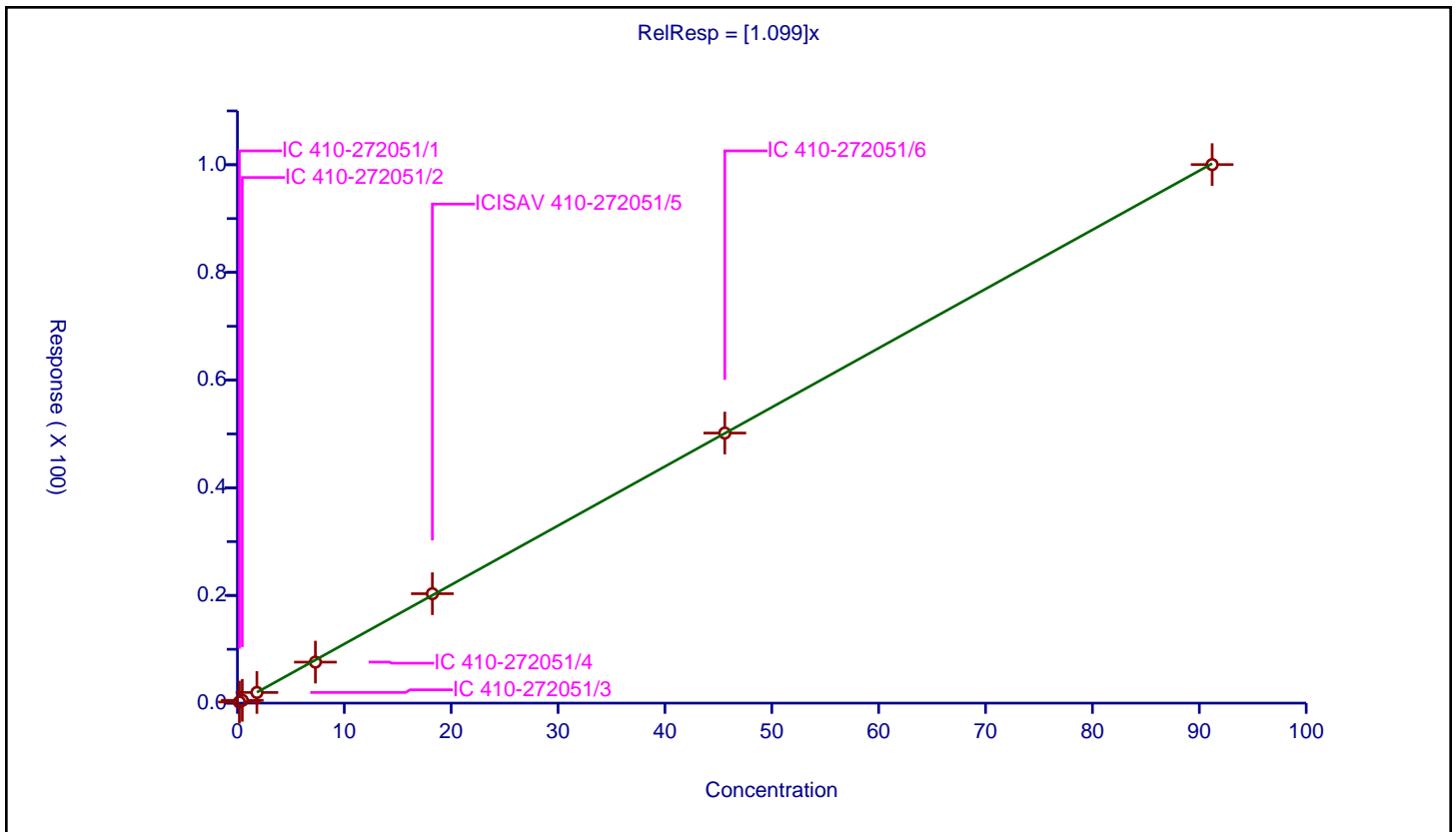
/ Perfluorohexanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.099

Error Coefficients	
Standard Error:	11400000
Relative Standard Error:	2.7
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.1824	0.203644	9.46	3618920.0	1.11647	Y
2	IC 410-272051/2	0.456	0.518973	9.46	3344331.0	1.138098	Y
3	IC 410-272051/3	1.824	1.975519	9.46	3069574.0	1.08307	Y
4	IC 410-272051/4	7.296	7.613239	9.46	2976920.0	1.043481	Y
5	ICISAV 410-272051/5	18.24	20.321762	9.46	2880513.0	1.114132	Y
6	IC 410-272051/6	45.6	50.163678	9.46	2603514.0	1.100081	Y
7	IC 410-272051/7	91.2	100.027826	9.46	2217737.0	1.096796	Y



Calibration

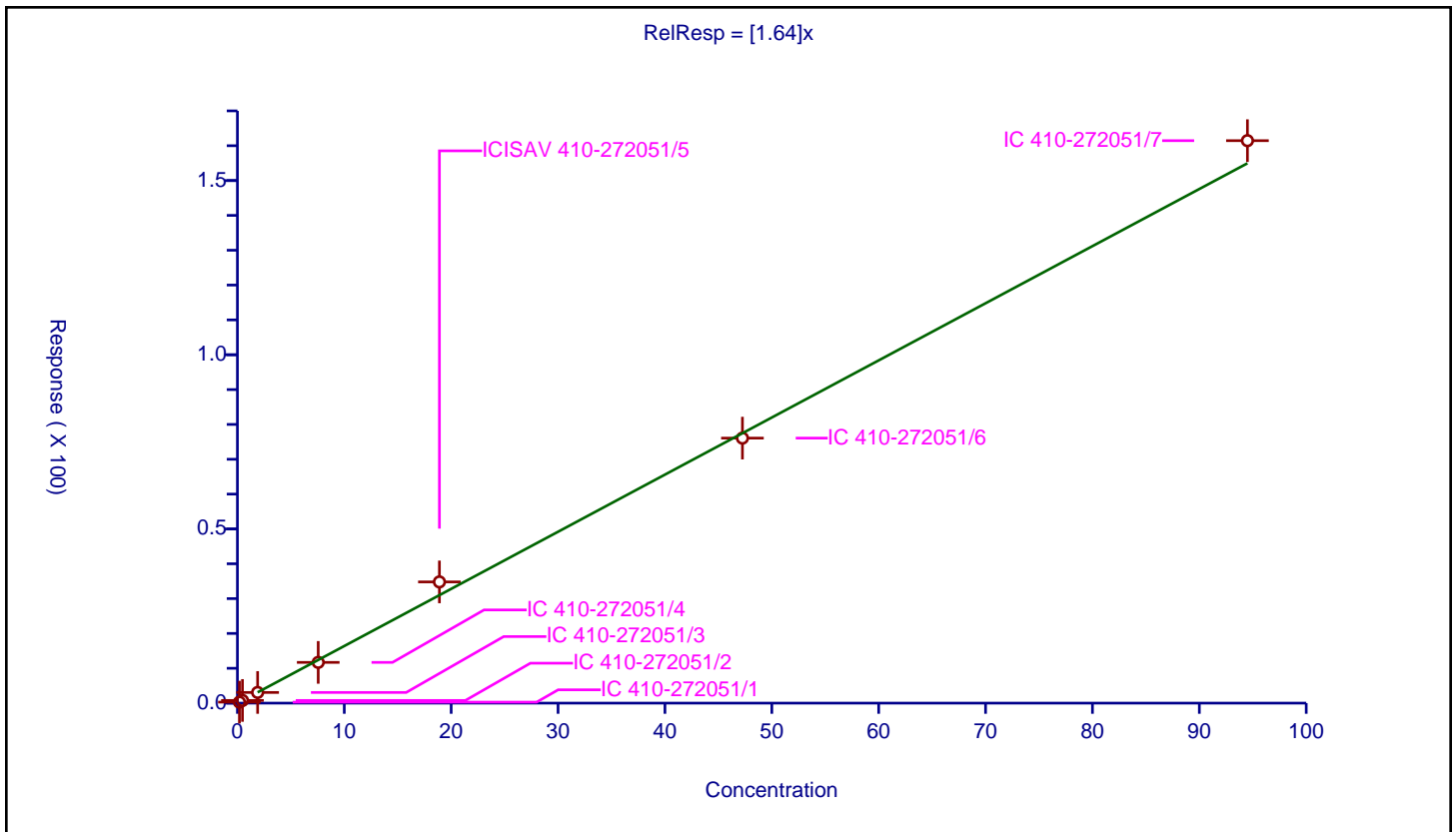
/ DONA

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

Curve Coefficients	
Intercept:	0
Slope:	1.64

Error Coefficients	
Standard Error:	12800000
Relative Standard Error:	6.6
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.189	0.286655	10.0	2830440.0	1.516694	Y
2	IC 410-272051/2	0.4725	0.771674	10.0	2679848.0	1.633173	Y
3	IC 410-272051/3	1.89	3.065123	10.0	2409861.0	1.621758	Y
4	IC 410-272051/4	7.56	11.69341	10.0	2448622.0	1.546747	Y
5	ICISAV 410-272051/5	18.9	34.799009	10.0	2128681.0	1.841217	Y
6	IC 410-272051/6	47.25	76.074808	10.0	2044845.0	1.610049	Y
7	IC 410-272051/7	94.5	161.453113	10.0	1609868.0	1.708499	Y



Calibration

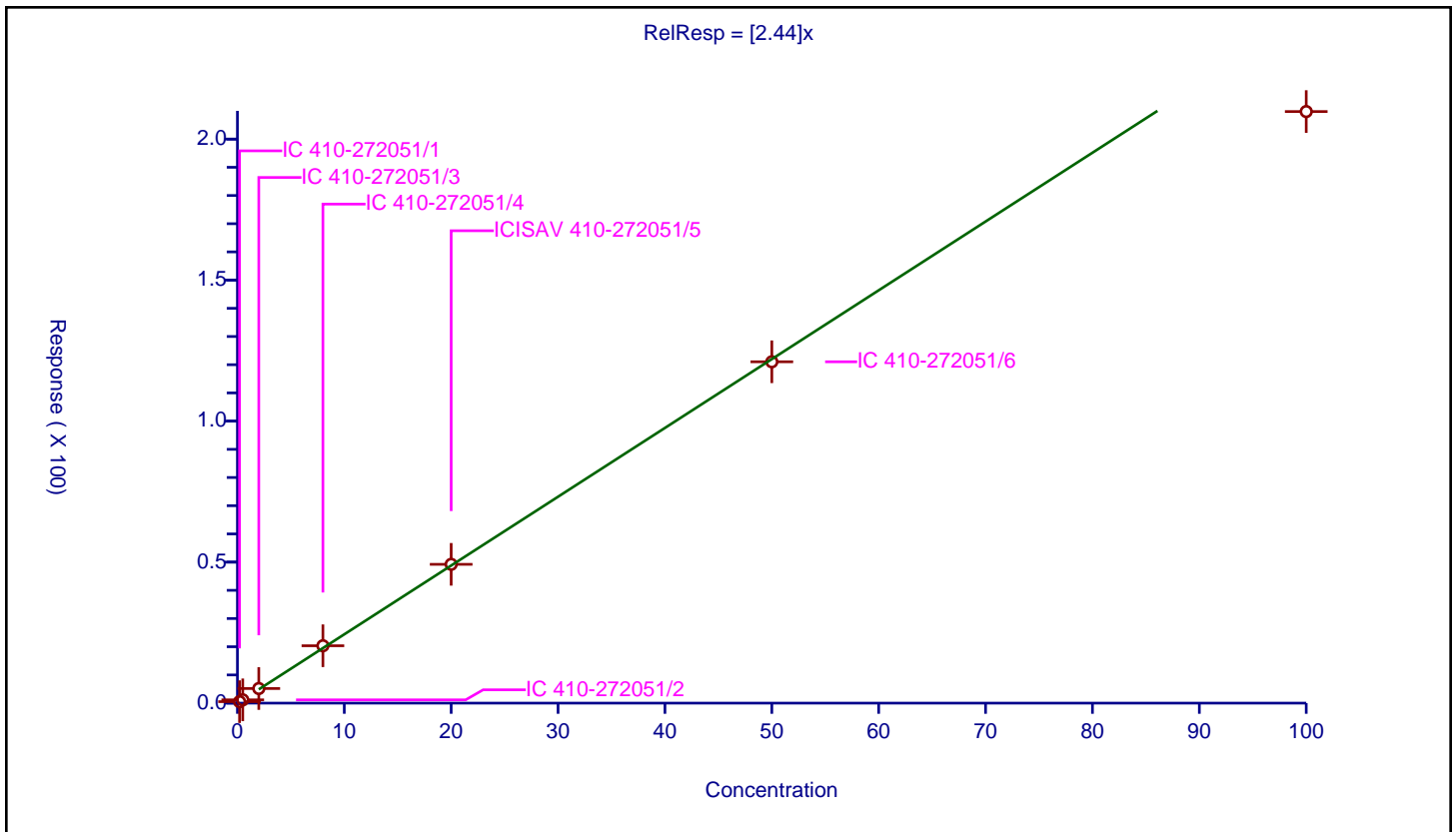
/ PFECA G

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

Curve Coefficients	
Intercept:	0
Slope:	2.44

Error Coefficients	
Standard Error:	16700000
Relative Standard Error:	7.4
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.525868	10.0	2101154.0	2.629341	Y
2	IC 410-272051/2	0.5	1.168139	10.0	2137451.0	2.336278	Y
3	IC 410-272051/3	2.0	5.178373	10.0	1916434.0	2.589186	Y
4	IC 410-272051/4	8.0	20.342622	10.0	1863715.0	2.542828	Y
5	ICISAV 410-272051/5	20.0	49.220948	10.0	1843086.0	2.461047	Y
6	IC 410-272051/6	50.0	121.033387	10.0	1696732.0	2.420668	Y
7	IC 410-272051/7	100.0	209.760981	10.0	1612678.0	2.09761	Y



Calibration

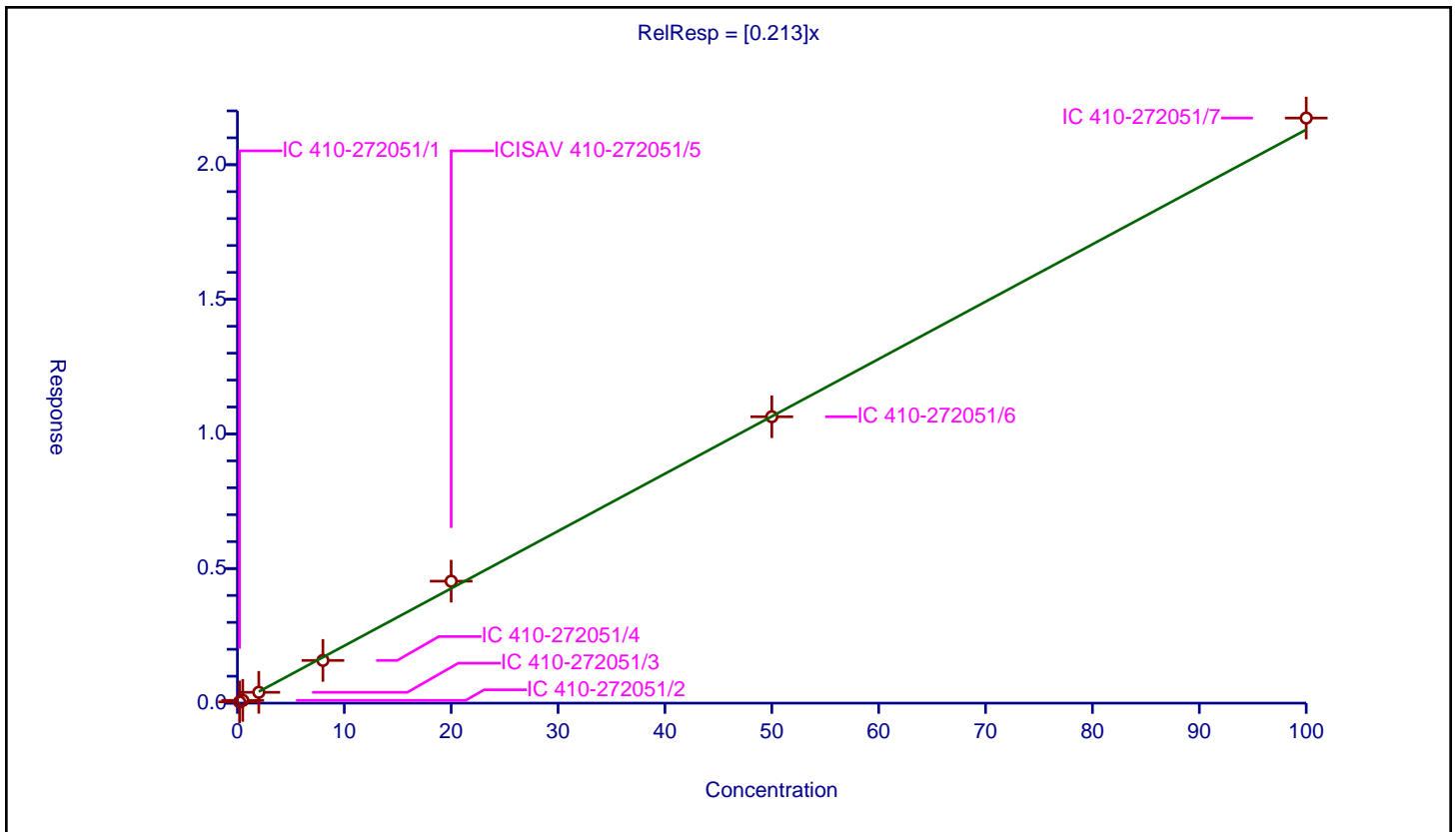
/ 5:3 FTCA

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

Curve Coefficients	
Intercept:	0
Slope:	0.213

Error Coefficients	
Standard Error:	1740000
Relative Standard Error:	6.0
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.04624	10.0	2830440.0	0.231201	Y
2	IC 410-272051/2	0.5	0.10211	10.0	2679848.0	0.204221	Y
3	IC 410-272051/3	2.0	0.401816	10.0	2409861.0	0.200908	Y
4	IC 410-272051/4	8.0	1.586884	10.0	2448622.0	0.198361	Y
5	ICISAV 410-272051/5	20.0	4.529359	10.0	2128681.0	0.226468	Y
6	IC 410-272051/6	50.0	10.638806	10.0	2044845.0	0.212776	Y
7	IC 410-272051/7	100.0	21.734124	10.0	1609868.0	0.217341	Y



Calibration

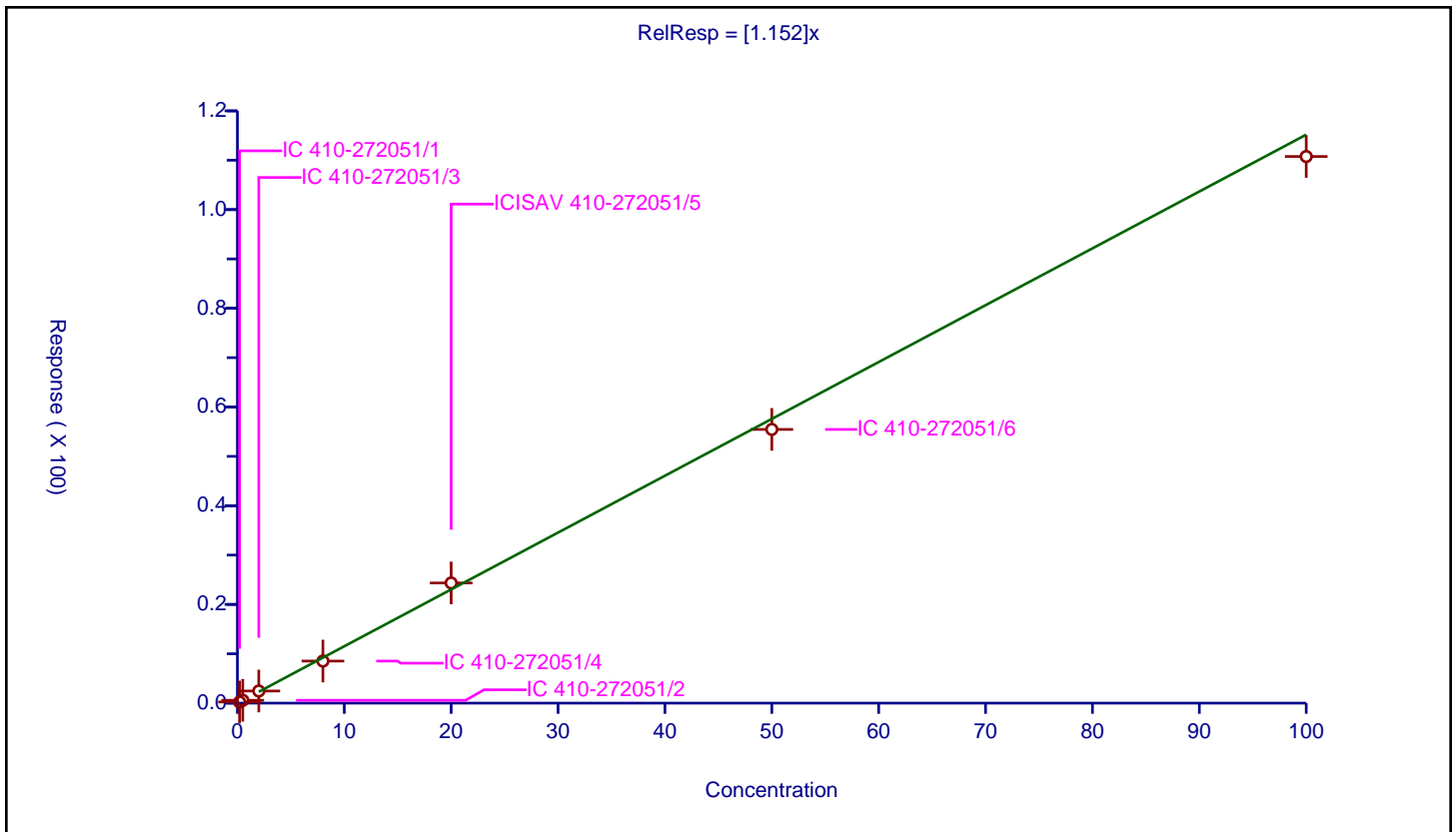
/ 6:2 FTUCA

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

Curve Coefficients	
Intercept:	0
Slope:	1.152

Error Coefficients	
Standard Error:	9550000
Relative Standard Error:	5.3
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.236687	10.0	2734418.0	1.183433	Y
2	IC 410-272051/2	0.5	0.575704	10.0	2821400.0	1.151407	Y
3	IC 410-272051/3	2.0	2.456004	10.0	2412679.0	1.228002	Y
4	IC 410-272051/4	8.0	8.525851	10.0	2614986.0	1.065731	Y
5	ICISAV 410-272051/5	20.0	24.346657	10.0	2300628.0	1.217333	Y
6	IC 410-272051/6	50.0	55.456888	10.0	2127007.0	1.109138	Y
7	IC 410-272051/7	100.0	110.757502	10.0	1739388.0	1.107575	Y



Calibration

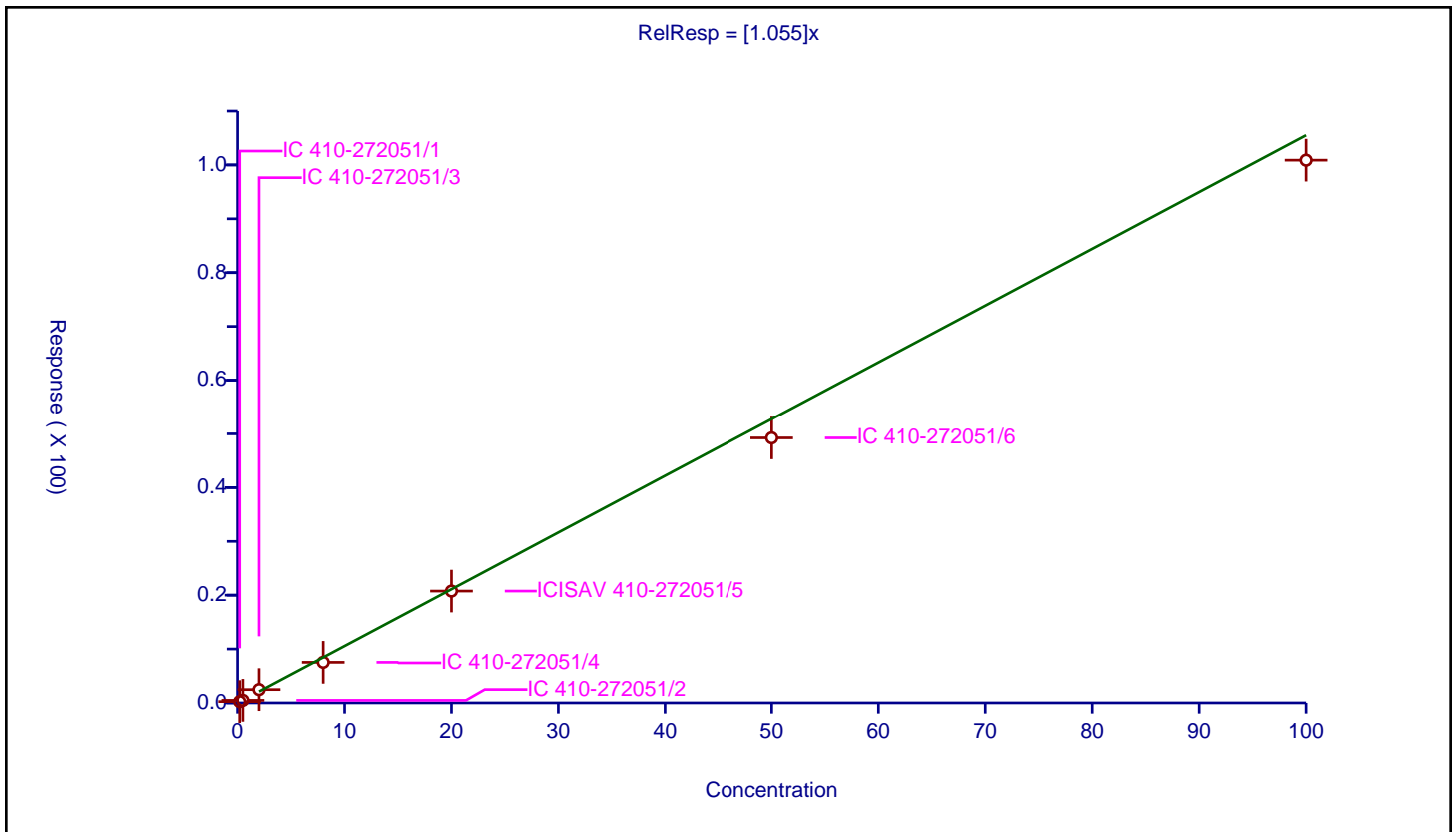
/ 6:2 FTCA

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

Curve Coefficients	
Intercept:	0
Slope:	1.055

Error Coefficients	
Standard Error:	966000
Relative Standard Error:	11.7
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.245157	10.0	271500.0	1.225783	Y
2	IC 410-272051/2	0.5	0.477411	10.0	309817.0	0.954822	Y
3	IC 410-272051/3	2.0	2.465129	10.0	237874.0	1.232564	Y
4	IC 410-272051/4	8.0	7.528157	10.0	261040.0	0.94102	Y
5	ICISAV 410-272051/5	20.0	20.765768	10.0	232995.0	1.038288	Y
6	IC 410-272051/6	50.0	49.24997	10.0	242457.0	0.984999	Y
7	IC 410-272051/7	100.0	100.88558	10.0	195691.0	1.008856	Y



Calibration

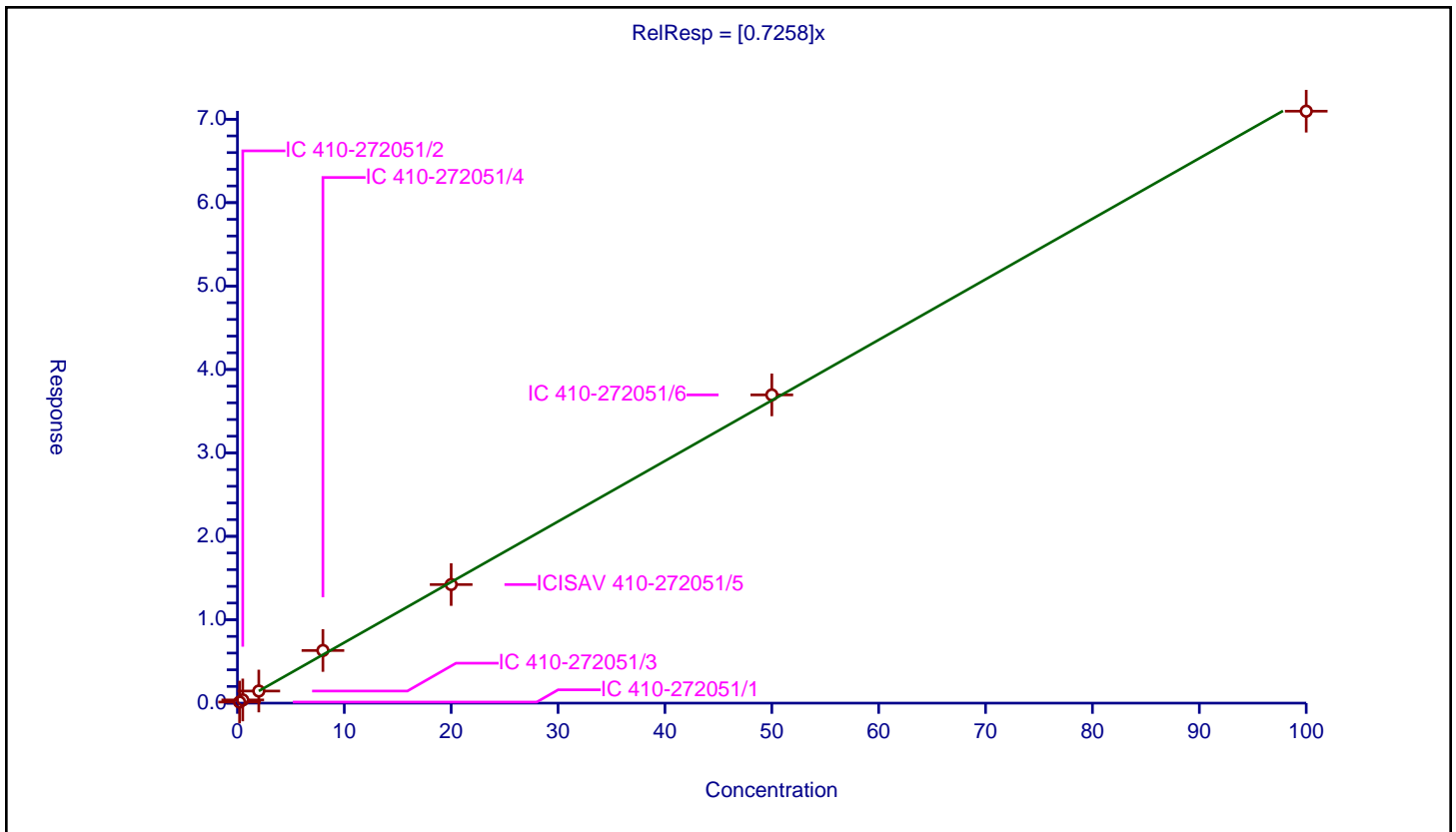
/ PFO4DA

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

Curve Coefficients	
Intercept:	0
Slope:	0.7258

Error Coefficients	
Standard Error:	5460000
Relative Standard Error:	6.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.1293	10.0	2101154.0	0.646502	Y
2	IC 410-272051/2	0.5	0.379976	10.0	2137451.0	0.759952	Y
3	IC 410-272051/3	2.0	1.45082	10.0	1916434.0	0.72541	Y
4	IC 410-272051/4	8.0	6.312365	10.0	1863715.0	0.789046	Y
5	ICISAV 410-272051/5	20.0	14.215066	10.0	1843086.0	0.710753	Y
6	IC 410-272051/6	50.0	36.95286	10.0	1696732.0	0.739057	Y
7	IC 410-272051/7	100.0	70.966293	10.0	1612678.0	0.709663	Y



Calibration

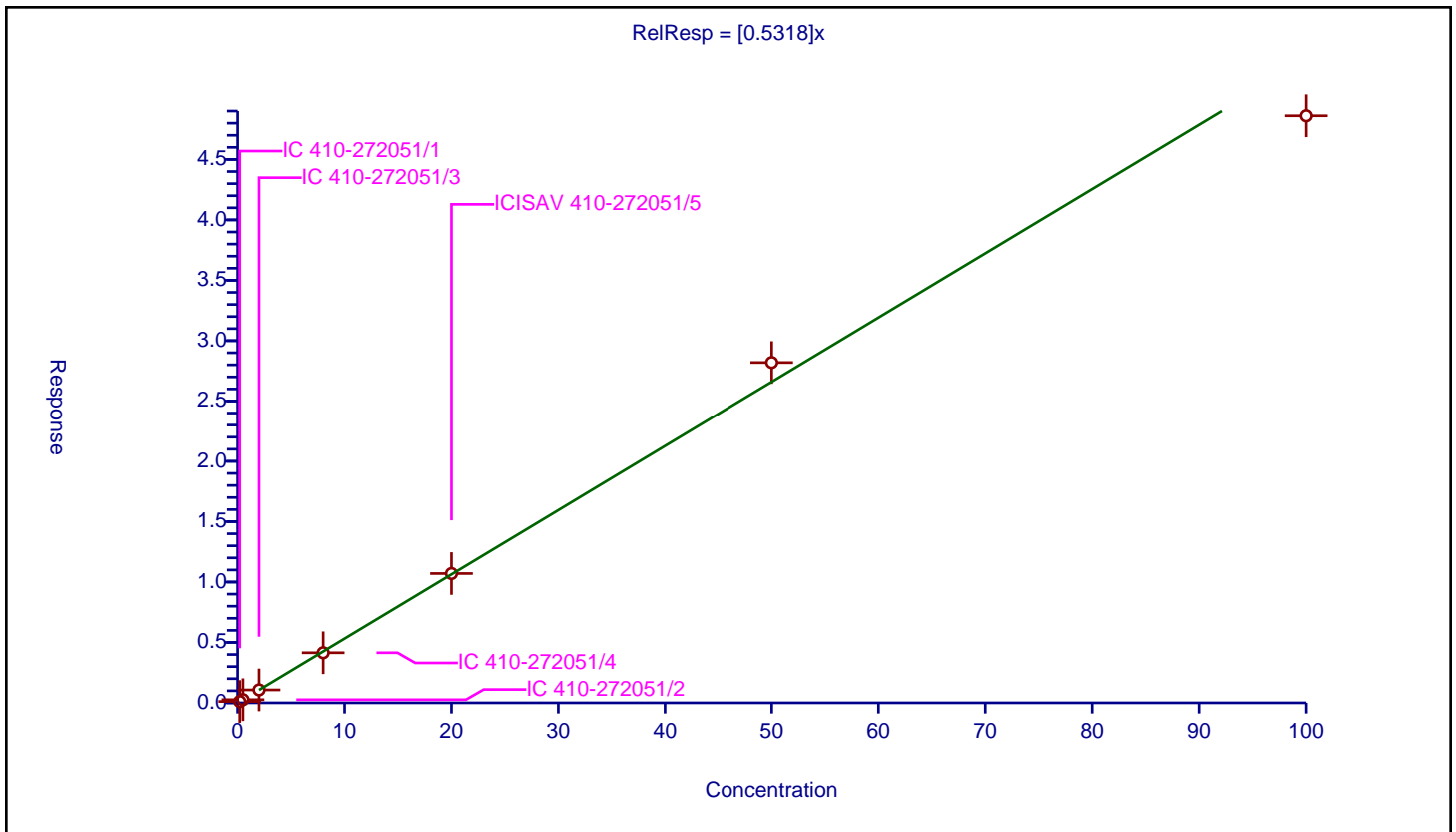
/ PS Acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.5318

Error Coefficients	
Standard Error:	6620000
Relative Standard Error:	5.0
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.112223	9.3	3284332.0	0.561115	Y
2	IC 410-272051/2	0.5	0.26167	9.3	3475553.0	0.523339	Y
3	IC 410-272051/3	2.0	1.070068	9.3	3035796.0	0.535034	Y
4	IC 410-272051/4	8.0	4.145701	9.3	3109208.0	0.518213	Y
5	ICISAV 410-272051/5	20.0	10.705873	9.3	3035528.0	0.535294	Y
6	IC 410-272051/6	50.0	28.192476	9.3	2777696.0	0.56385	Y
7	IC 410-272051/7	100.0	48.609644	9.3	2552580.0	0.486096	Y



Calibration

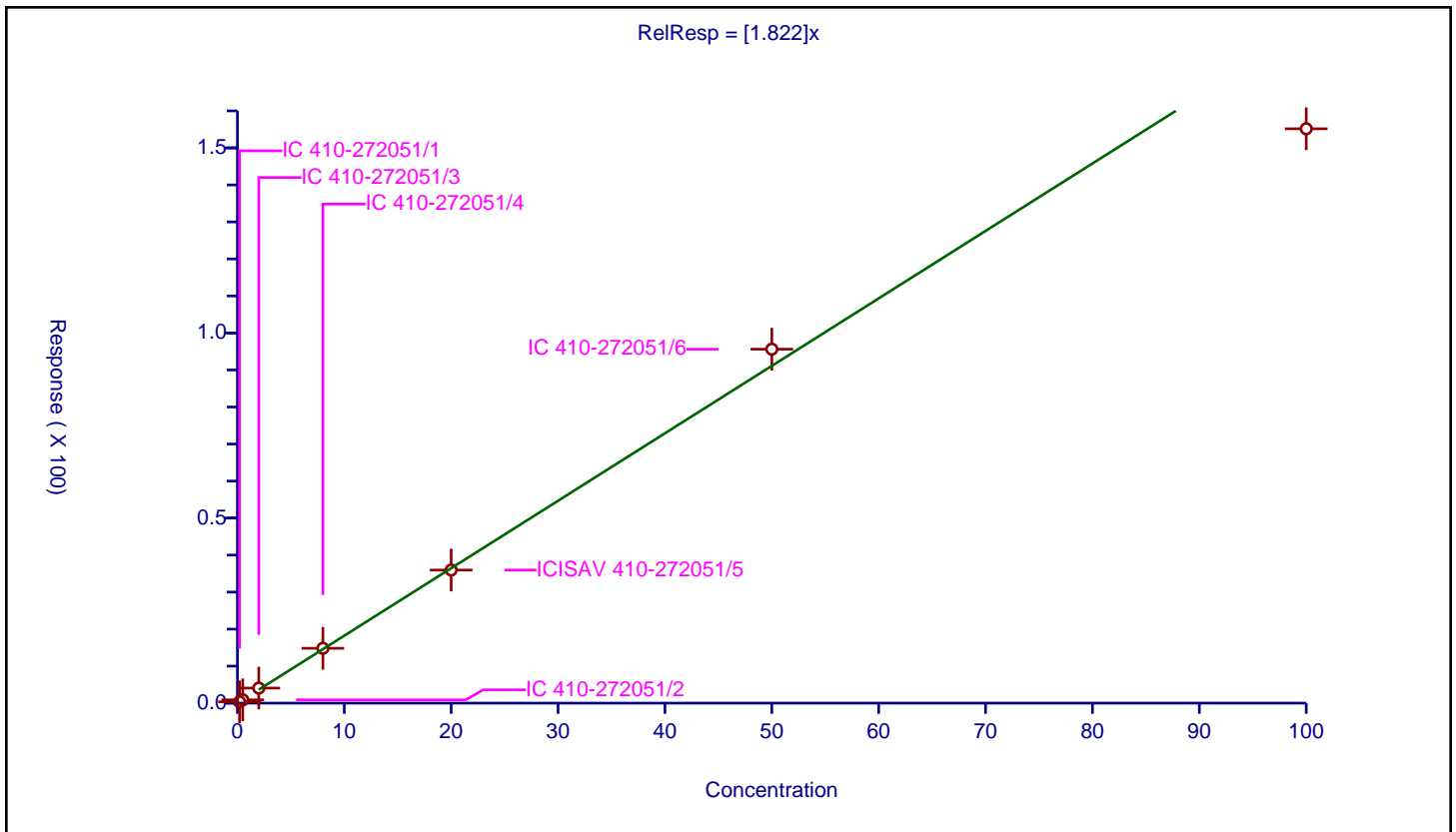
/ EVE Acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.822

Error Coefficients	
Standard Error:	12500000
Relative Standard Error:	8.1
Correlation Coefficient:	0.981
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.365742	10.0	2101154.0	1.828709	Y
2	IC 410-272051/2	0.5	0.889401	10.0	2137451.0	1.778801	Y
3	IC 410-272051/3	2.0	4.069819	10.0	1916434.0	2.03491	Y
4	IC 410-272051/4	8.0	14.818237	10.0	1863715.0	1.85228	Y
5	ICISAV 410-272051/5	20.0	35.952408	10.0	1843086.0	1.79762	Y
6	IC 410-272051/6	50.0	95.620151	10.0	1696732.0	1.912403	Y
7	IC 410-272051/7	100.0	155.165886	10.0	1612678.0	1.551659	Y



Calibration

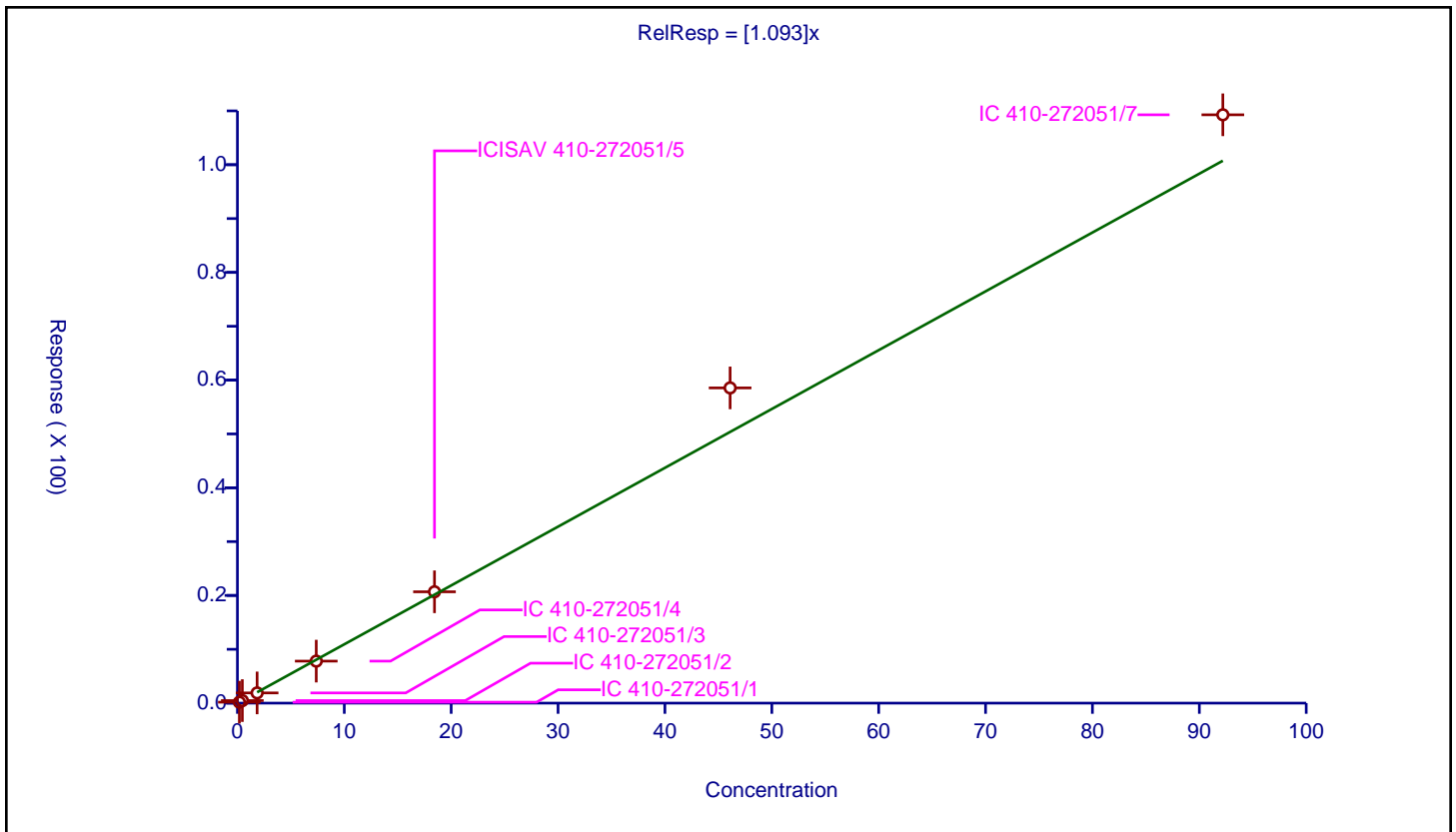
/ PFECHS

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

Curve Coefficients	
Intercept:	0
Slope:	1.093

Error Coefficients	
Standard Error:	12700000
Relative Standard Error:	9.8
Correlation Coefficient:	0.986
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.1844	0.176727	9.46	3618920.0	0.958391	Y
2	IC 410-272051/2	0.461	0.473386	9.46	3344331.0	1.026868	Y
3	IC 410-272051/3	1.844	1.89642	9.46	3069574.0	1.028427	Y
4	IC 410-272051/4	7.376	7.802193	9.46	2976920.0	1.057781	Y
5	ICISAV 410-272051/5	18.44	20.681848	9.46	2880513.0	1.121575	Y
6	IC 410-272051/6	46.1	58.545959	9.46	2603514.0	1.269977	Y
7	IC 410-272051/7	92.2	109.273134	9.46	2217737.0	1.185175	Y



Calibration

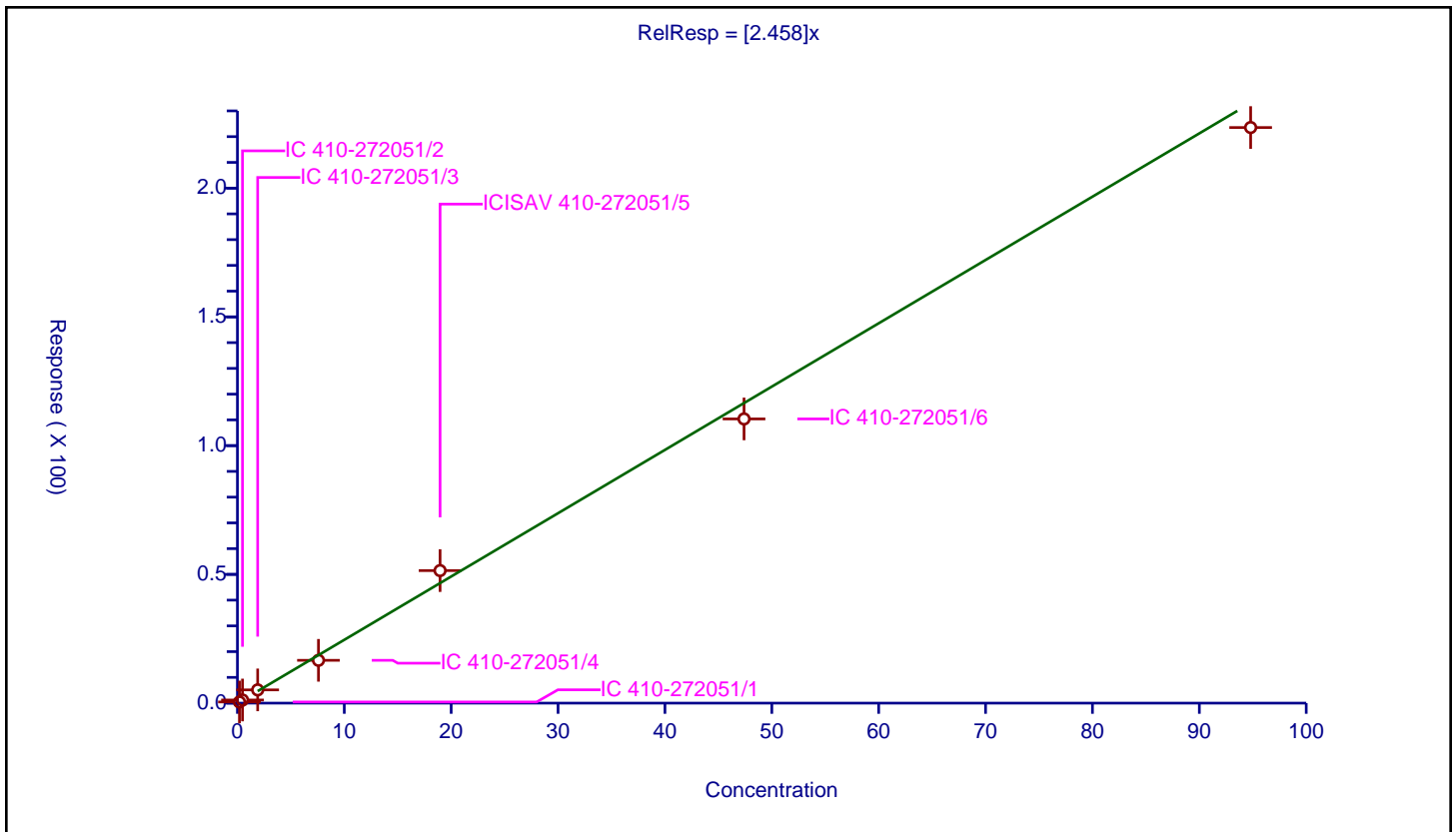
/ 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)

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

Curve Coefficients	
Intercept:	0
Slope:	2.458

Error Coefficients	
Standard Error:	849000
Relative Standard Error:	8.3
Correlation Coefficient:	0.986
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.1896	0.444918	9.5	102982.0	2.346612	Y
2	IC 410-272051/2	0.474	1.21202	9.5	102962.0	2.557004	Y
3	IC 410-272051/3	1.896	5.141522	9.5	88880.0	2.711773	Y
4	IC 410-272051/4	7.584	16.628591	9.5	98553.0	2.192588	Y
5	ICISAV 410-272051/5	18.96	51.473678	9.5	92299.0	2.714856	Y
6	IC 410-272051/6	47.4	110.371267	9.5	89394.0	2.328508	Y
7	IC 410-272051/7	94.8	223.535811	9.5	73175.0	2.357973	Y



Calibration

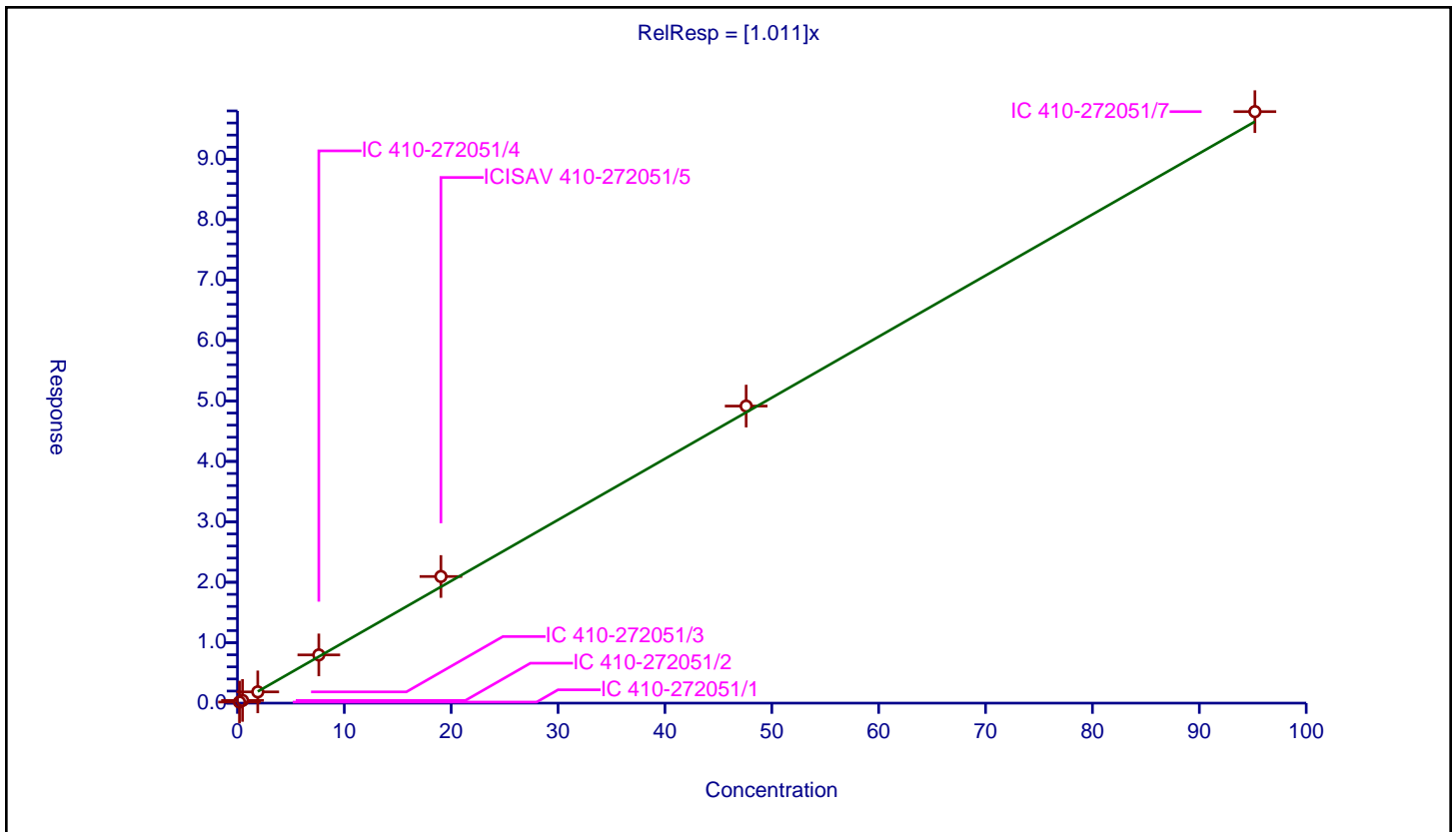
/ Perfluoroheptanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.011

Error Coefficients	
Standard Error:	11200000
Relative Standard Error:	5.7
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.1904	0.180371	9.46	3618920.0	0.947328	Y
2	IC 410-272051/2	0.476	0.448259	9.46	3344331.0	0.94172	Y
3	IC 410-272051/3	1.904	1.860273	9.46	3069574.0	0.977034	Y
4	IC 410-272051/4	7.616	7.980743	9.46	2976920.0	1.047892	Y
5	ICISAV 410-272051/5	19.04	20.952894	9.46	2880513.0	1.100467	Y
6	IC 410-272051/6	47.6	49.157417	9.46	2603514.0	1.032719	Y
7	IC 410-272051/7	95.2	97.875459	9.46	2217737.0	1.028104	Y



Calibration

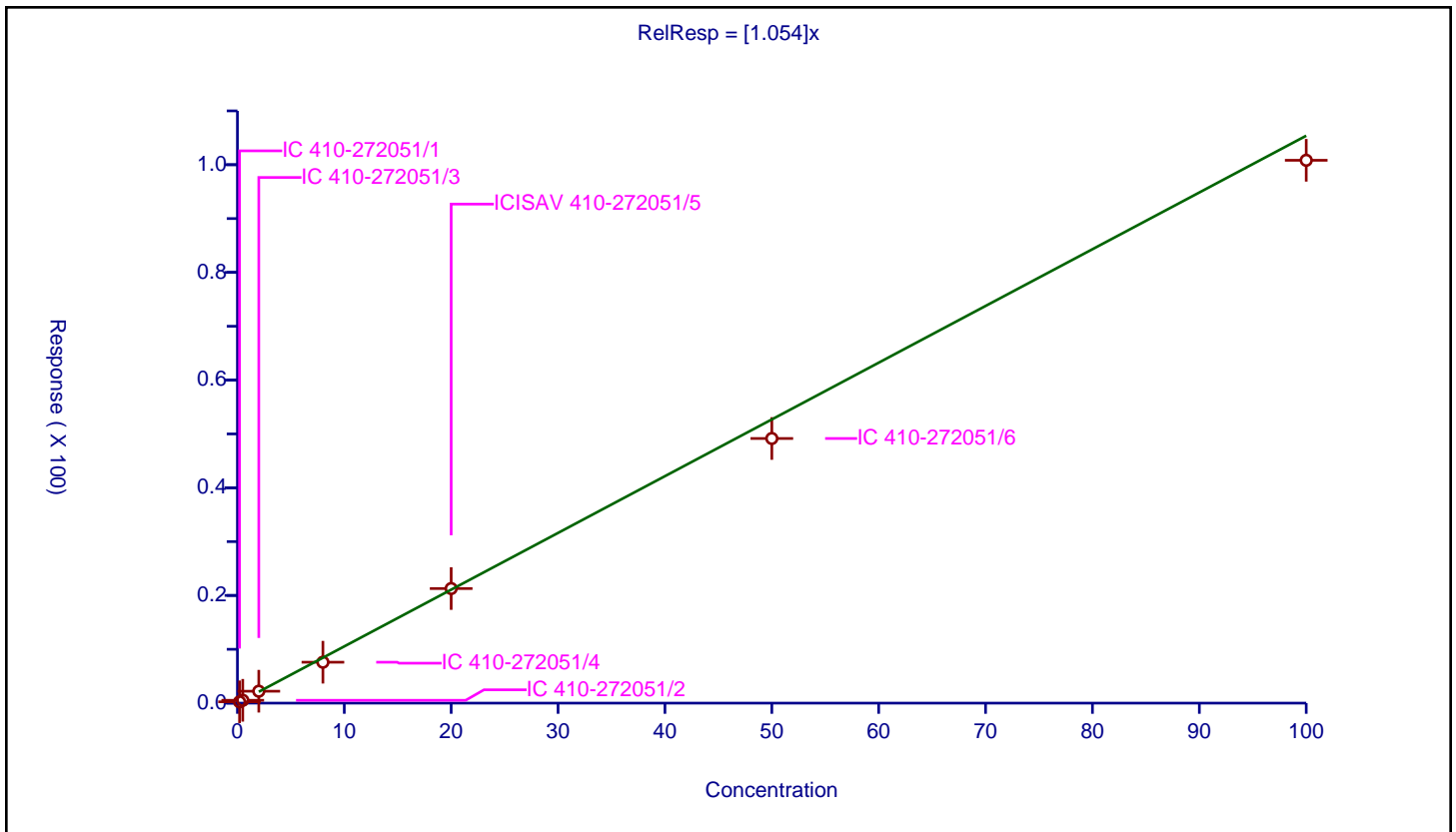
/ Perfluorooctanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.054

Error Coefficients	
Standard Error:	7390000
Relative Standard Error:	8.4
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.243072	10.0	2251638.0	1.21536	Y
2	IC 410-272051/2	0.5	0.524357	10.0	2394150.0	1.048715	Y
3	IC 410-272051/3	2.0	2.213902	10.0	2049481.0	1.106951	Y
4	IC 410-272051/4	8.0	7.602677	10.0	2102178.0	0.950335	Y
5	ICISAV 410-272051/5	20.0	21.283175	10.0	2011823.0	1.064159	Y
6	IC 410-272051/6	50.0	49.154093	10.0	1833583.0	0.983082	Y
7	IC 410-272051/7	100.0	100.824121	10.0	1490170.0	1.008241	Y



Calibration

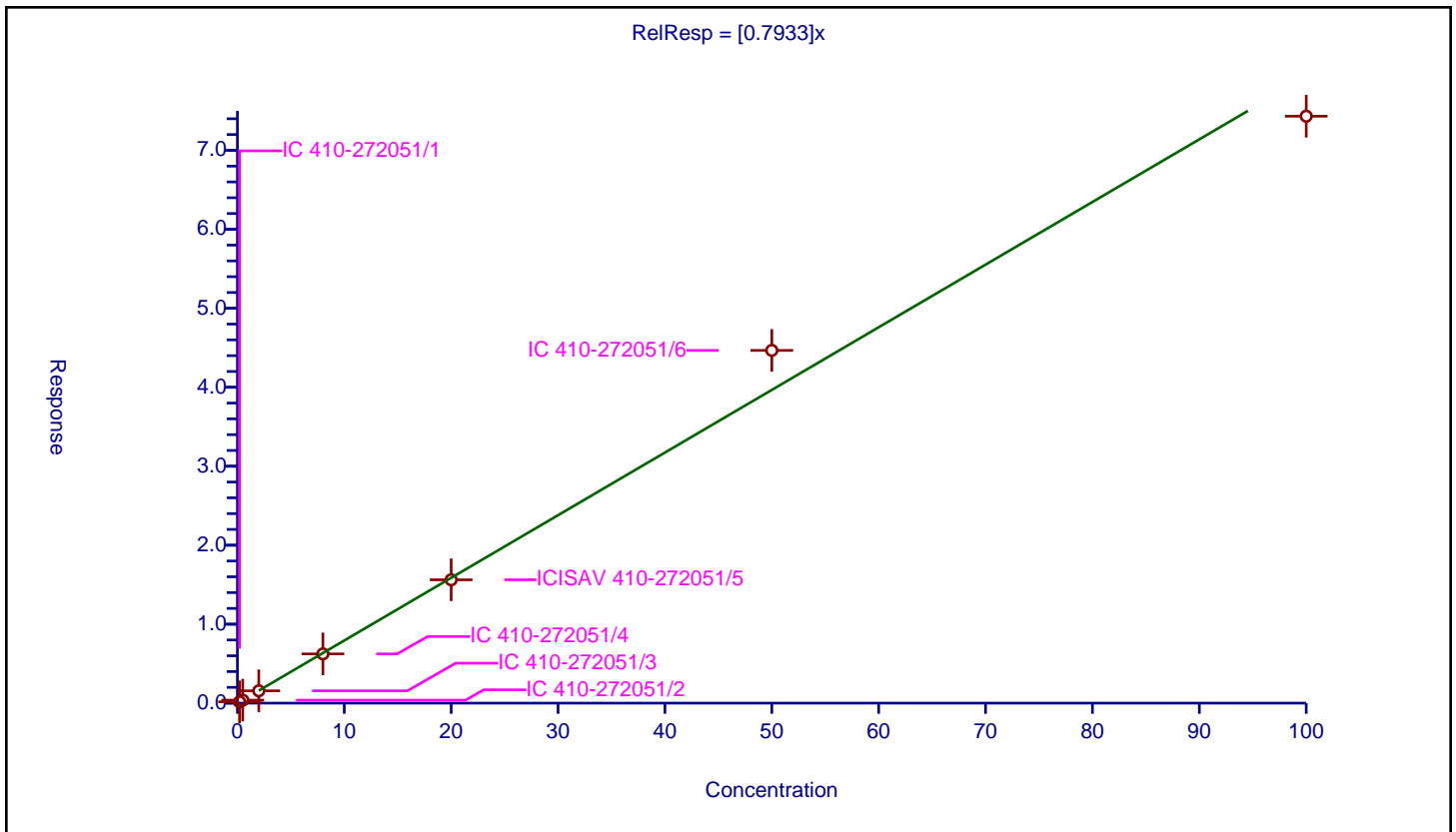
/ TAF

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

Curve Coefficients	
Intercept:	0
Slope:	0.7933

Error Coefficients	
Standard Error:	5930000
Relative Standard Error:	6.2
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.162963	10.0	2101154.0	0.814814	Y
2	IC 410-272051/2	0.5	0.380626	10.0	2137451.0	0.761253	Y
3	IC 410-272051/3	2.0	1.56033	10.0	1916434.0	0.780165	Y
4	IC 410-272051/4	8.0	6.232997	10.0	1863715.0	0.779125	Y
5	ICISAV 410-272051/5	20.0	15.619163	10.0	1843086.0	0.780958	Y
6	IC 410-272051/6	50.0	44.667785	10.0	1696732.0	0.893356	Y
7	IC 410-272051/7	100.0	74.326375	10.0	1612678.0	0.743264	Y



Calibration

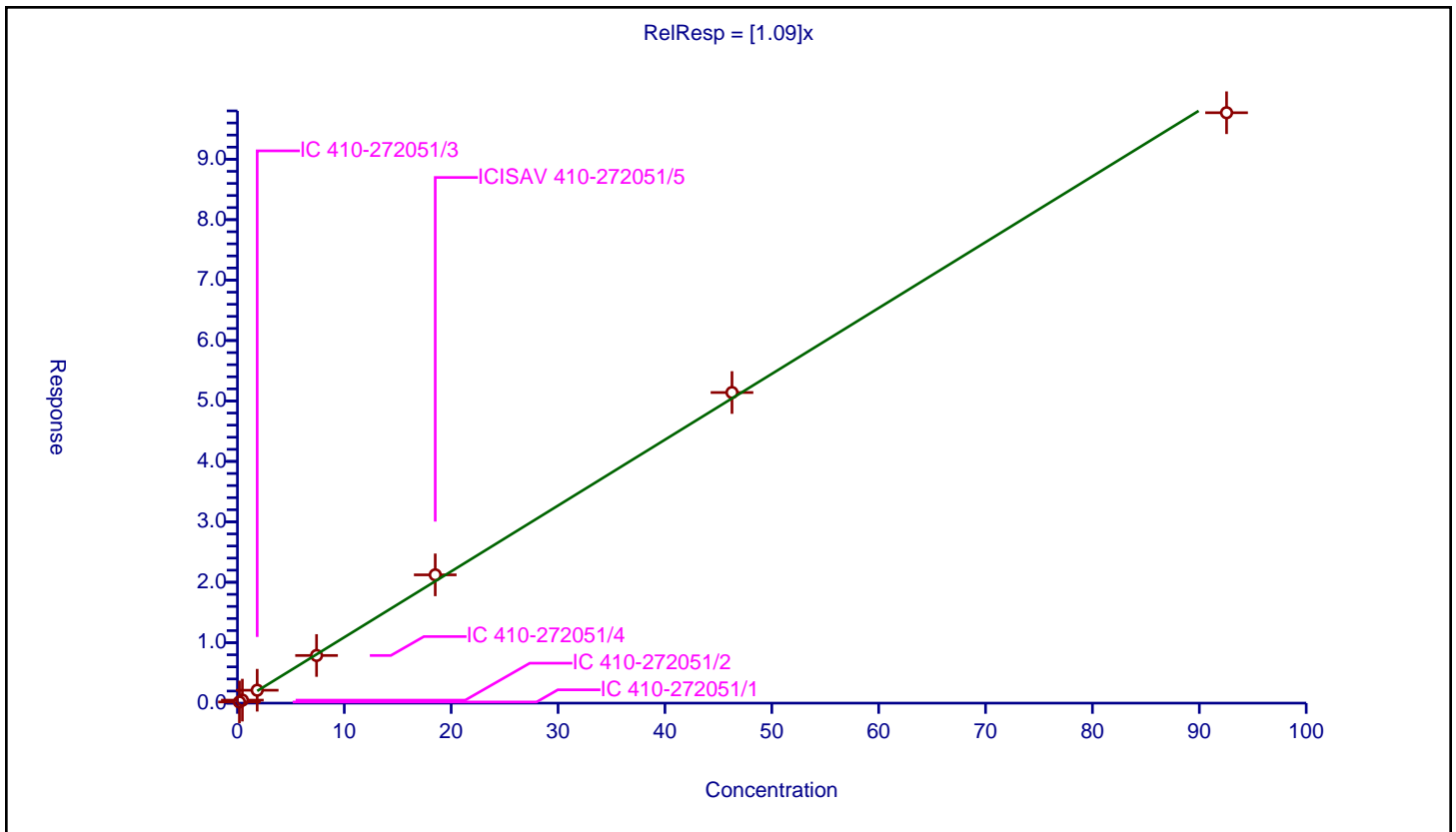
/ Perfluorooctanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.09

Error Coefficients	
Standard Error:	11700000
Relative Standard Error:	4.3
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.1851	0.190824	9.56	3064122.0	1.030925	Y
2	IC 410-272051/2	0.46275	0.493639	9.56	2881715.0	1.066752	Y
3	IC 410-272051/3	1.851	2.133502	9.56	2700744.0	1.152621	Y
4	IC 410-272051/4	7.404	7.880148	9.56	2708769.0	1.06431	Y
5	ICISAV 410-272051/5	18.51	21.226659	9.56	2767662.0	1.146767	Y
6	IC 410-272051/6	46.275	51.400516	9.56	2603744.0	1.110762	Y
7	IC 410-272051/7	92.55	97.695073	9.56	2356492.0	1.055592	Y



Calibration

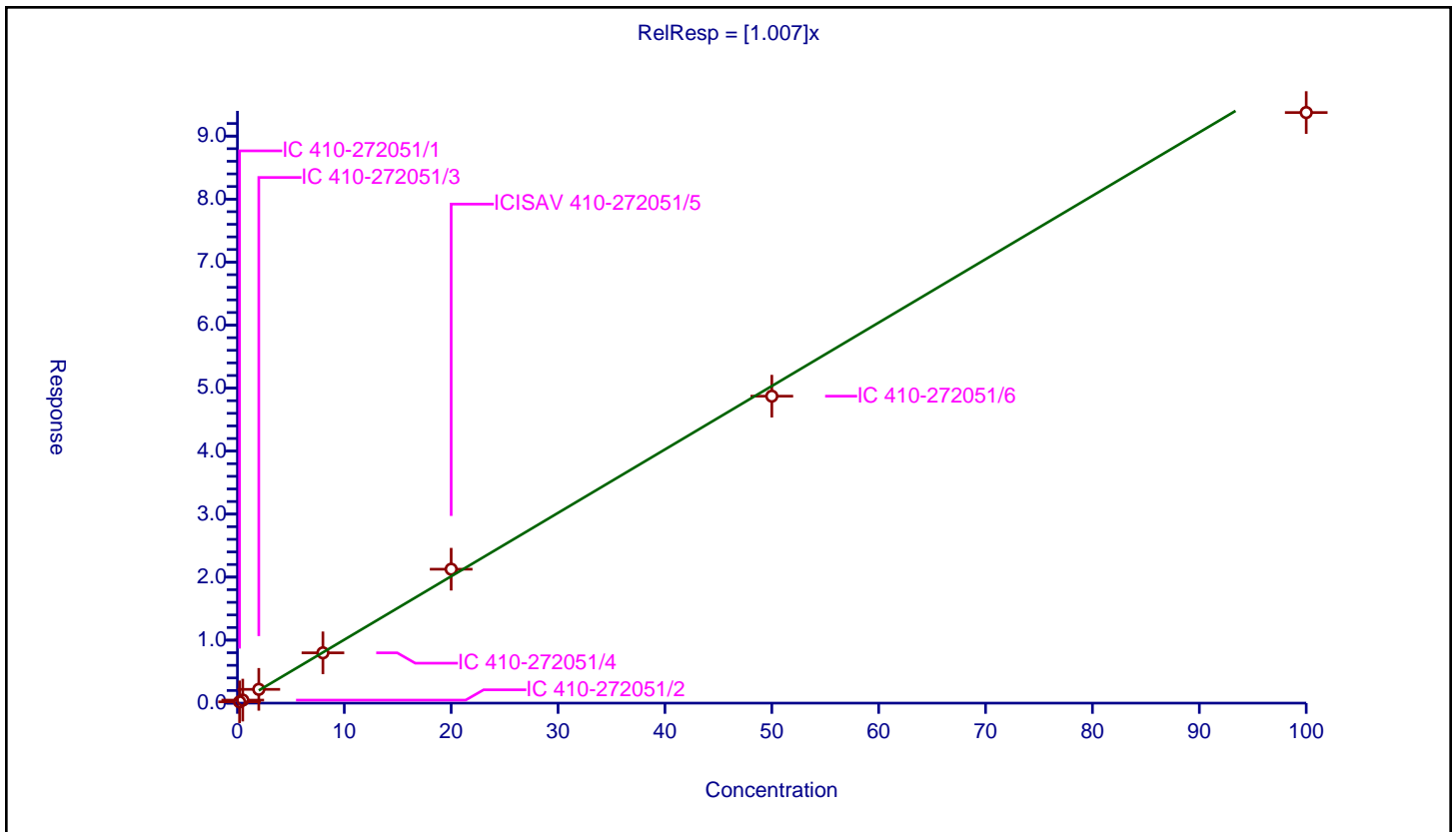
/ Perfluorononanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.007

Error Coefficients	
Standard Error:	7040000
Relative Standard Error:	5.6
Correlation Coefficient:	0.980
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.204517	10.0	2267150.0	1.022583	Y
2	IC 410-272051/2	0.5	0.478437	10.0	2194542.0	0.956874	Y
3	IC 410-272051/3	2.0	2.187196	10.0	1809019.0	1.093598	Y
4	IC 410-272051/4	8.0	7.98443	10.0	1940910.0	0.998054	Y
5	ICISAV 410-272051/5	20.0	21.257273	10.0	1851229.0	1.062864	Y
6	IC 410-272051/6	50.0	48.722649	10.0	1860703.0	0.974453	Y
7	IC 410-272051/7	100.0	93.736596	10.0	1496983.0	0.937366	Y



Calibration

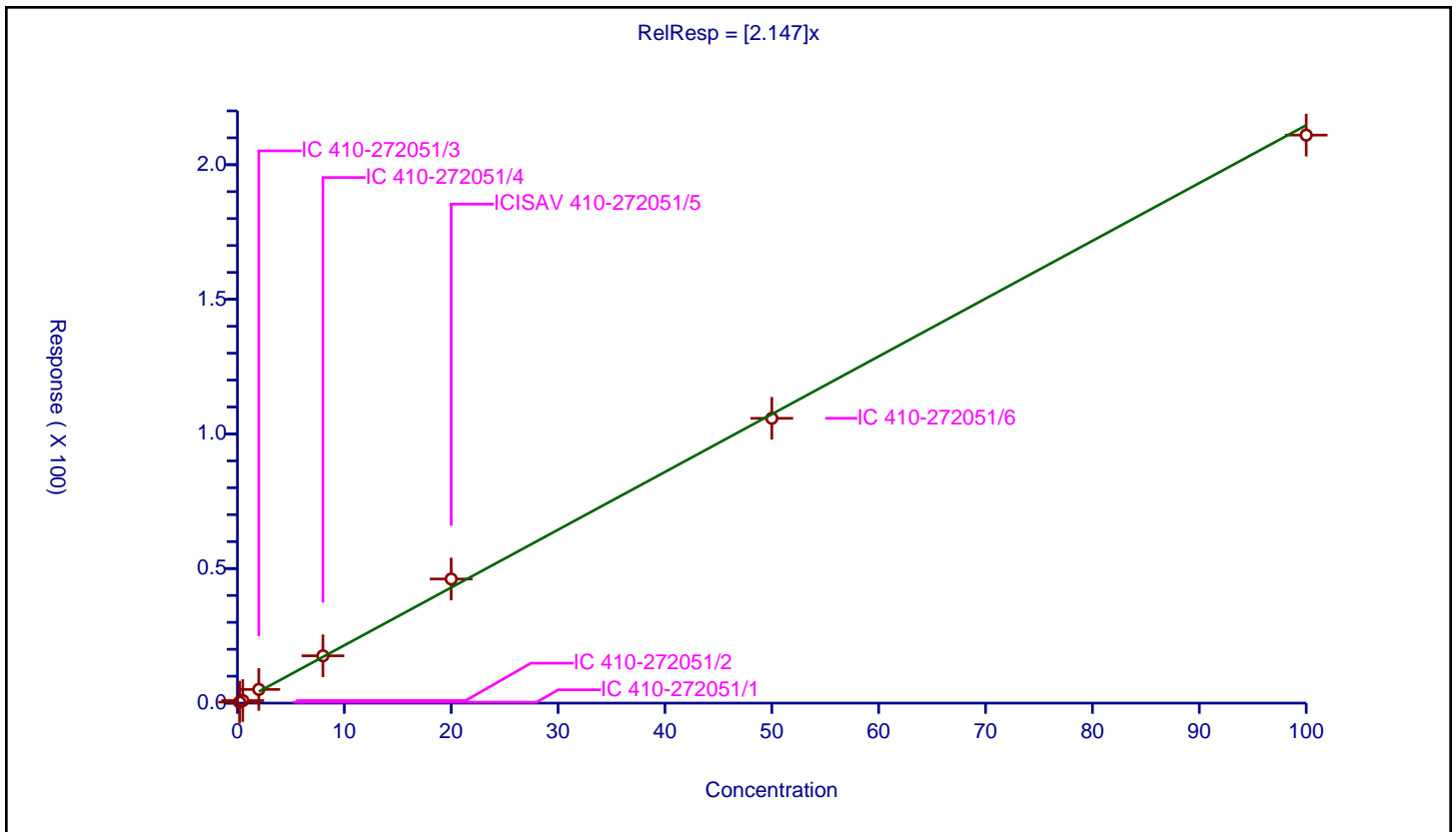
/ 7:3 FTCA

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

Curve Coefficients	
Intercept:	0
Slope:	2.147

Error Coefficients	
Standard Error:	2040000
Relative Standard Error:	11.0
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.372449	10.0	271500.0	1.862247	Y
2	IC 410-272051/2	0.5	0.946333	10.0	309817.0	1.892666	Y
3	IC 410-272051/3	2.0	5.087231	10.0	237874.0	2.543616	Y
4	IC 410-272051/4	8.0	17.571598	10.0	261040.0	2.19645	Y
5	ICISAV 410-272051/5	20.0	46.107685	10.0	232995.0	2.305384	Y
6	IC 410-272051/6	50.0	105.797523	10.0	242457.0	2.11595	Y
7	IC 410-272051/7	100.0	211.016041	10.0	195691.0	2.11016	Y



Calibration

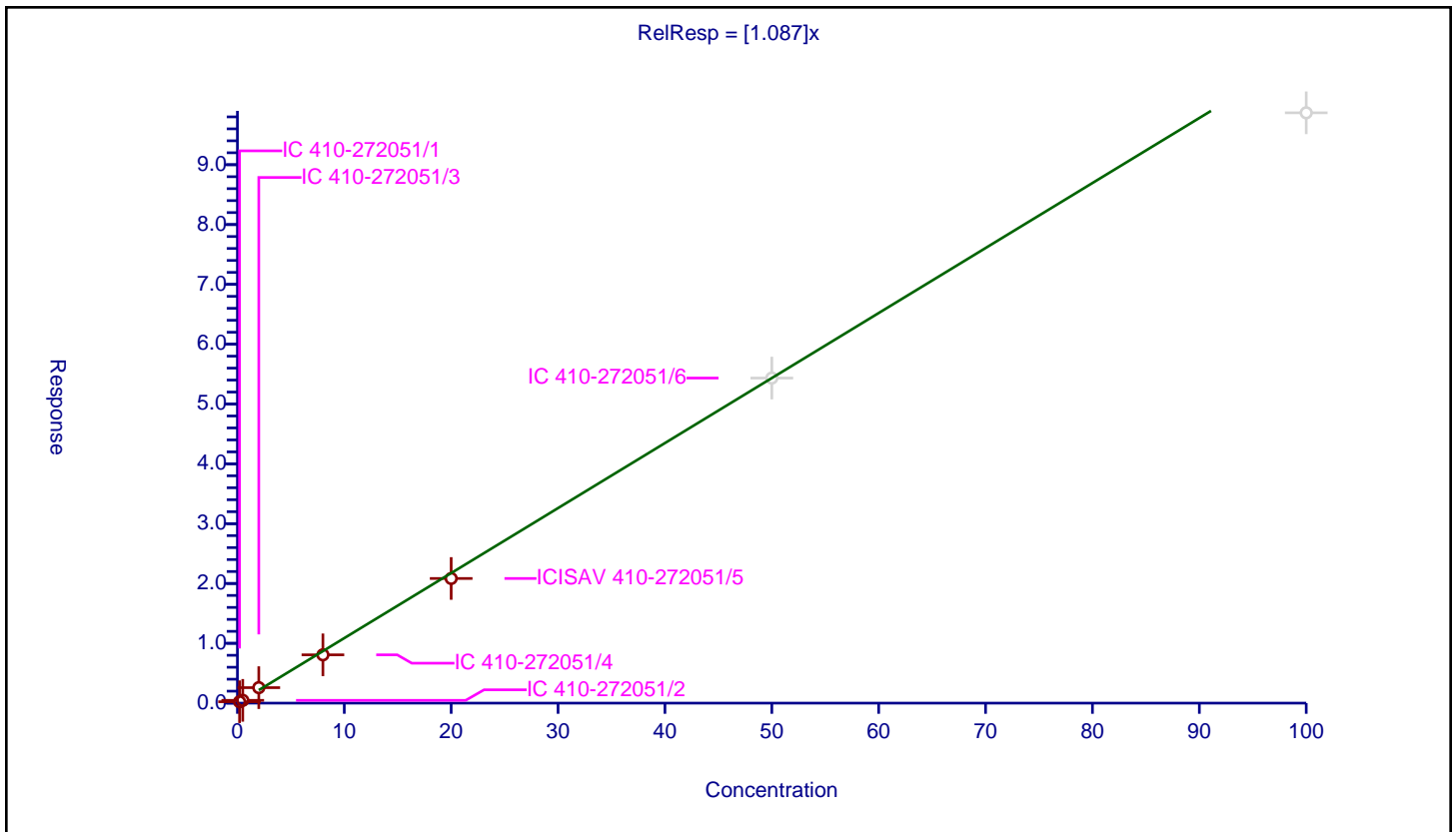
/ 8:2 FTUCA

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:	1910000
Relative Standard Error:	13.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.232087	10.0	2096413.0	1.160435	Y
2	IC 410-272051/2	0.5	0.464188	10.0	2406827.0	0.928376	Y
3	IC 410-272051/3	2.0	2.587879	10.0	1774708.0	1.29394	Y
4	IC 410-272051/4	8.0	8.074205	10.0	1843898.0	1.009276	Y
5	ICISAV 410-272051/5	20.0	20.83663	10.0	1677217.0	1.041831	Y
6	IC 410-272051/6	50.0	54.3407	10.0	1578978.0	1.086814	N
7	IC 410-272051/7	100.0	98.680901	10.0	1377736.0	0.986809	N



Calibration

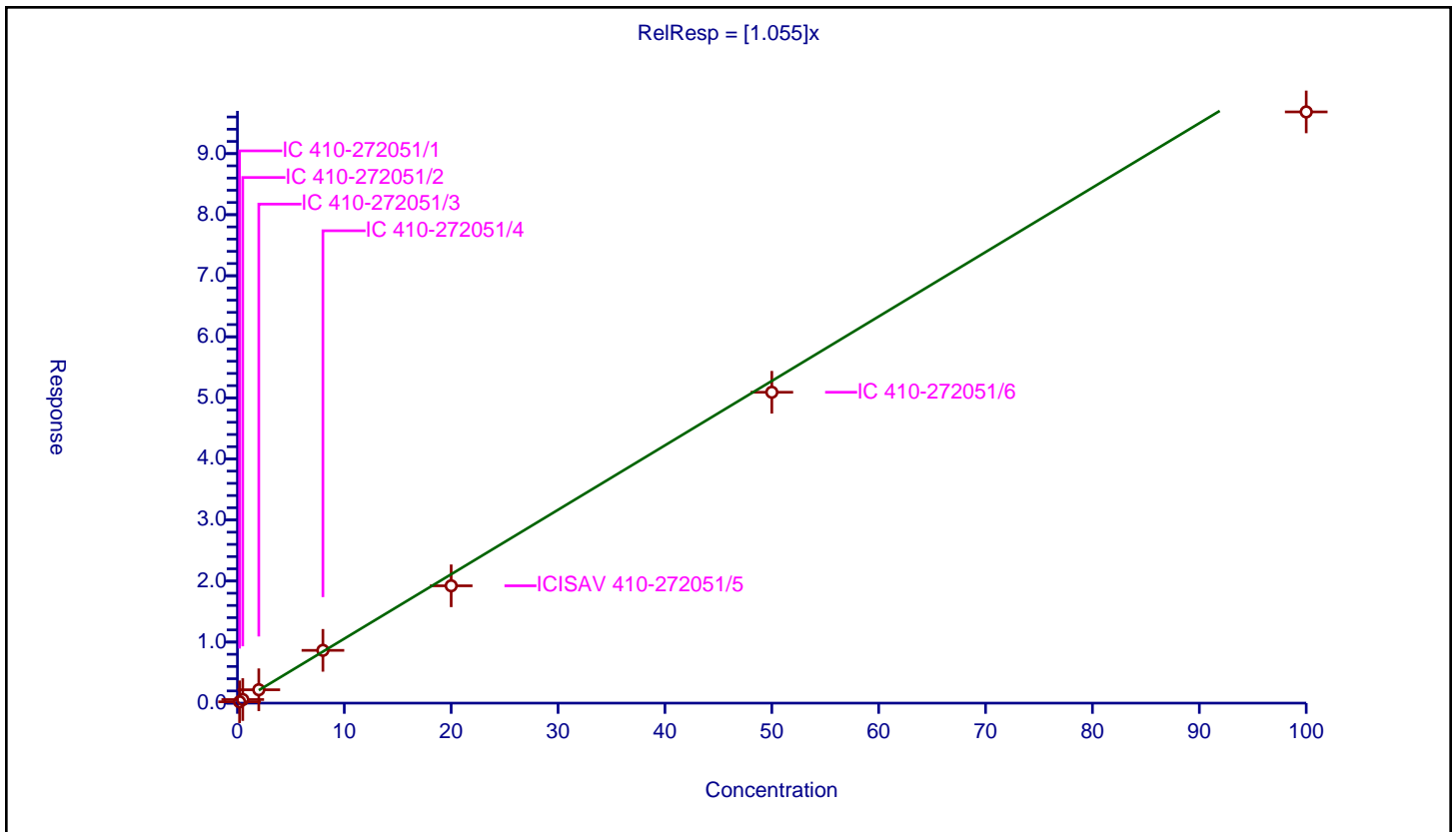
/ 8:2 FTCA

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

Curve Coefficients	
Intercept:	0
Slope:	1.055

Error Coefficients	
Standard Error:	678000
Relative Standard Error:	7.3
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.217754	10.0	205599.0	1.08877	Y
2	IC 410-272051/2	0.5	0.587177	10.0	198407.0	1.174354	Y
3	IC 410-272051/3	2.0	2.192783	10.0	185130.0	1.096392	Y
4	IC 410-272051/4	8.0	8.644219	10.0	171156.0	1.080527	Y
5	ICISAV 410-272051/5	20.0	19.219156	10.0	170700.0	0.960958	Y
6	IC 410-272051/6	50.0	50.919525	10.0	171556.0	1.01839	Y
7	IC 410-272051/7	100.0	96.832378	10.0	141109.0	0.968324	Y



Calibration

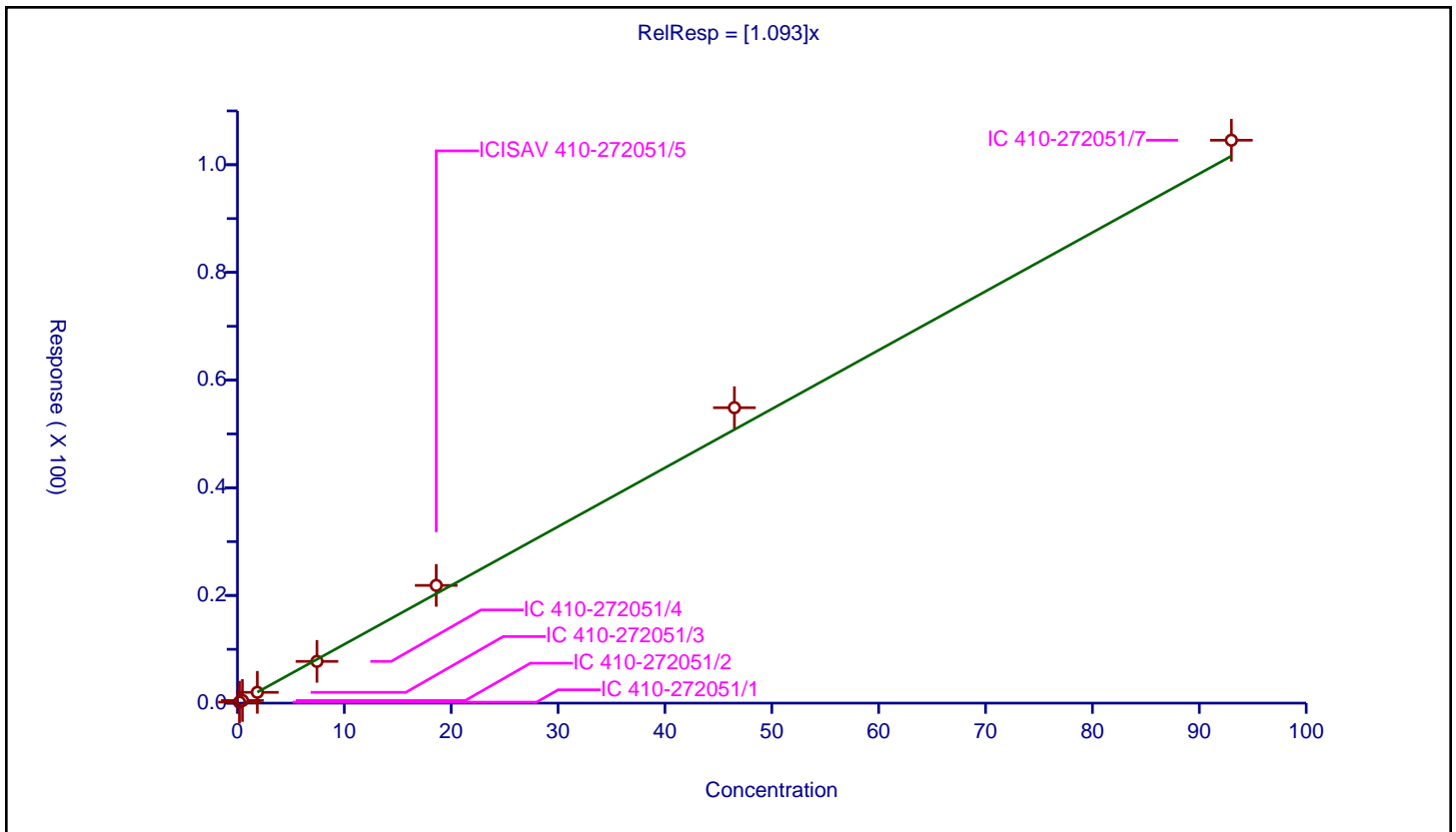
/ 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.093

Error Coefficients	
Standard Error:	12500000
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 410-272051/1	0.186	0.185215	9.56	3064122.0	0.995777	Y
2	IC 410-272051/2	0.465	0.489459	9.56	2881715.0	1.052601	Y
3	IC 410-272051/3	1.86	2.004962	9.56	2700744.0	1.077937	Y
4	IC 410-272051/4	7.44	7.754778	9.56	2708769.0	1.042309	Y
5	ICISAV 410-272051/5	18.6	21.86505	9.56	2767662.0	1.17554	Y
6	IC 410-272051/6	46.5	54.870906	9.56	2603744.0	1.180019	Y
7	IC 410-272051/7	93.0	104.553797	9.56	2356492.0	1.124234	Y



Calibration

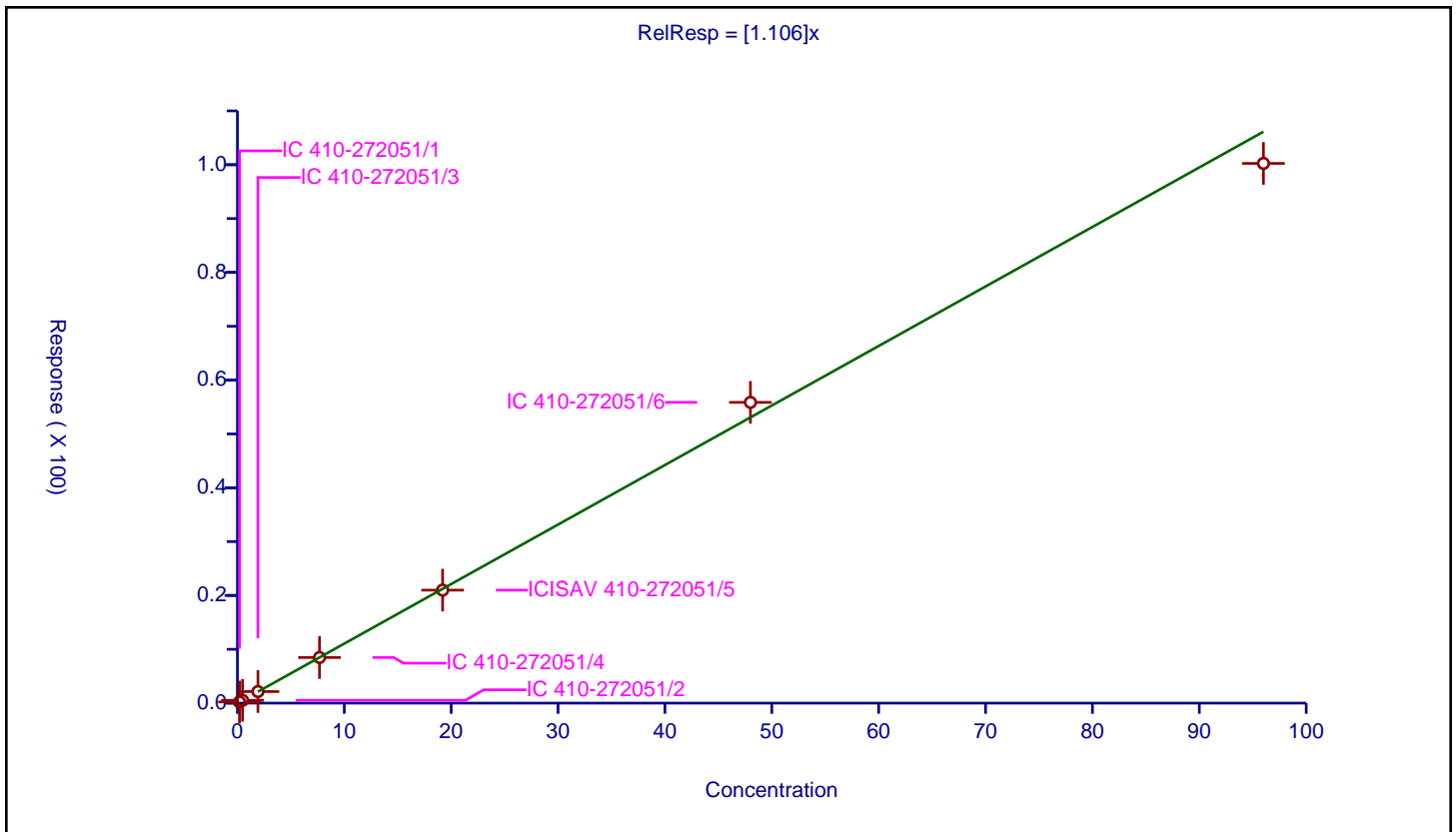
/ Perfluorononanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.106

Error Coefficients	
Standard Error:	12100000
Relative Standard Error:	3.4
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.192	0.216324	9.56	3064122.0	1.126687	Y
2	IC 410-272051/2	0.48	0.522199	9.56	2881715.0	1.087916	Y
3	IC 410-272051/3	1.92	2.150882	9.56	2700744.0	1.120251	Y
4	IC 410-272051/4	7.68	8.471031	9.56	2708769.0	1.102999	Y
5	ICISAV 410-272051/5	19.2	20.986144	9.56	2767662.0	1.093028	Y
6	IC 410-272051/6	48.0	55.861135	9.56	2603744.0	1.163774	Y
7	IC 410-272051/7	96.0	100.247194	9.56	2356492.0	1.044242	Y



Calibration

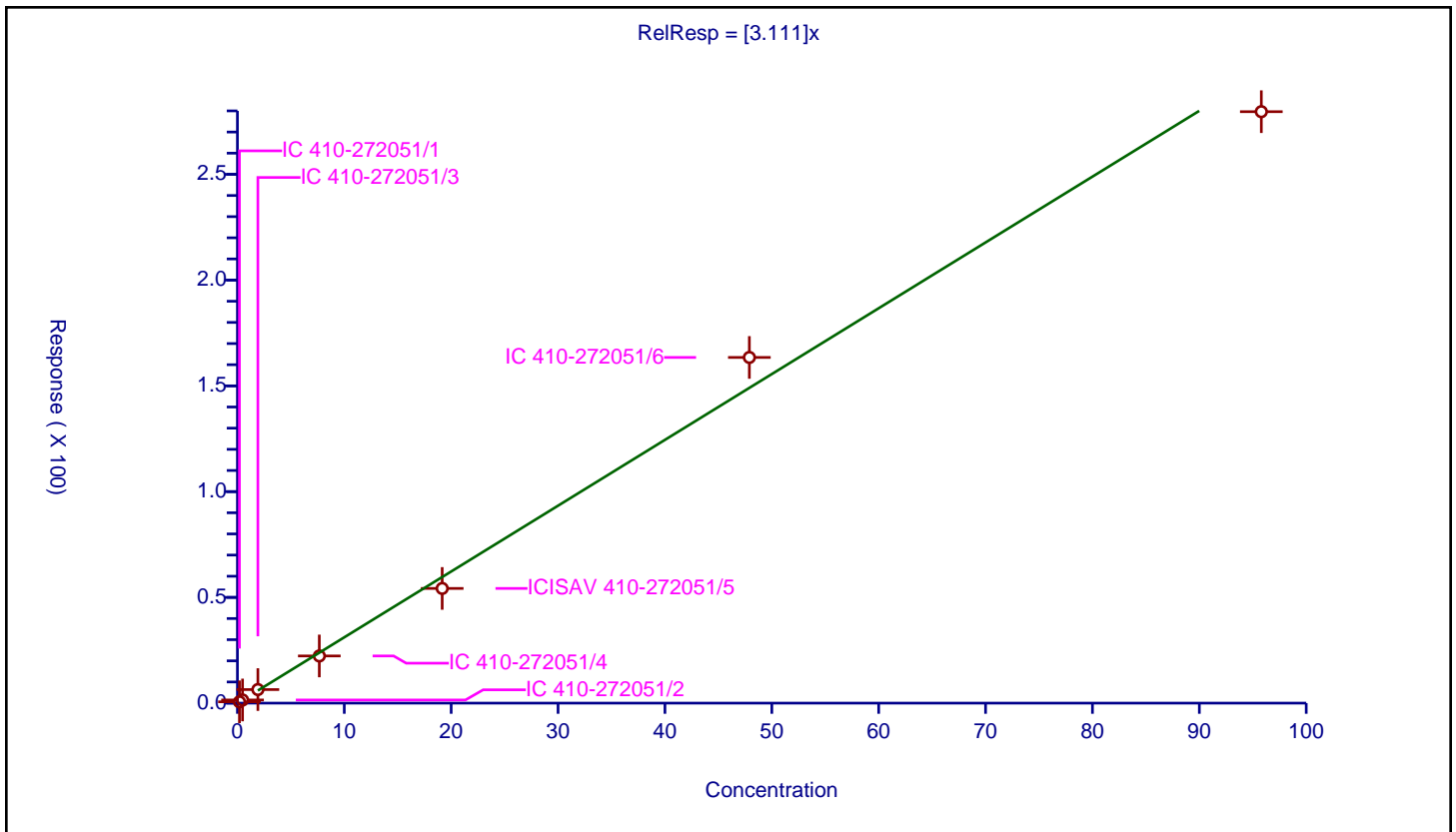
/ 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)

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

Curve Coefficients	
Intercept:	0
Slope:	3.111

Error Coefficients	
Standard Error:	820000
Relative Standard Error:	7.5
Correlation Coefficient:	0.980
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.1916	0.622625	9.58	74132.0	3.249609	Y
2	IC 410-272051/2	0.479	1.489006	9.58	77341.0	3.108571	Y
3	IC 410-272051/3	1.916	6.420778	9.58	69181.0	3.351137	Y
4	IC 410-272051/4	7.664	22.302649	9.58	73841.0	2.910053	Y
5	ICISAV 410-272051/5	19.16	54.225272	9.58	68449.0	2.830129	Y
6	IC 410-272051/6	47.9	163.430357	9.58	63138.0	3.411907	Y
7	IC 410-272051/7	95.8	279.618475	9.58	56245.0	2.918773	Y



Calibration

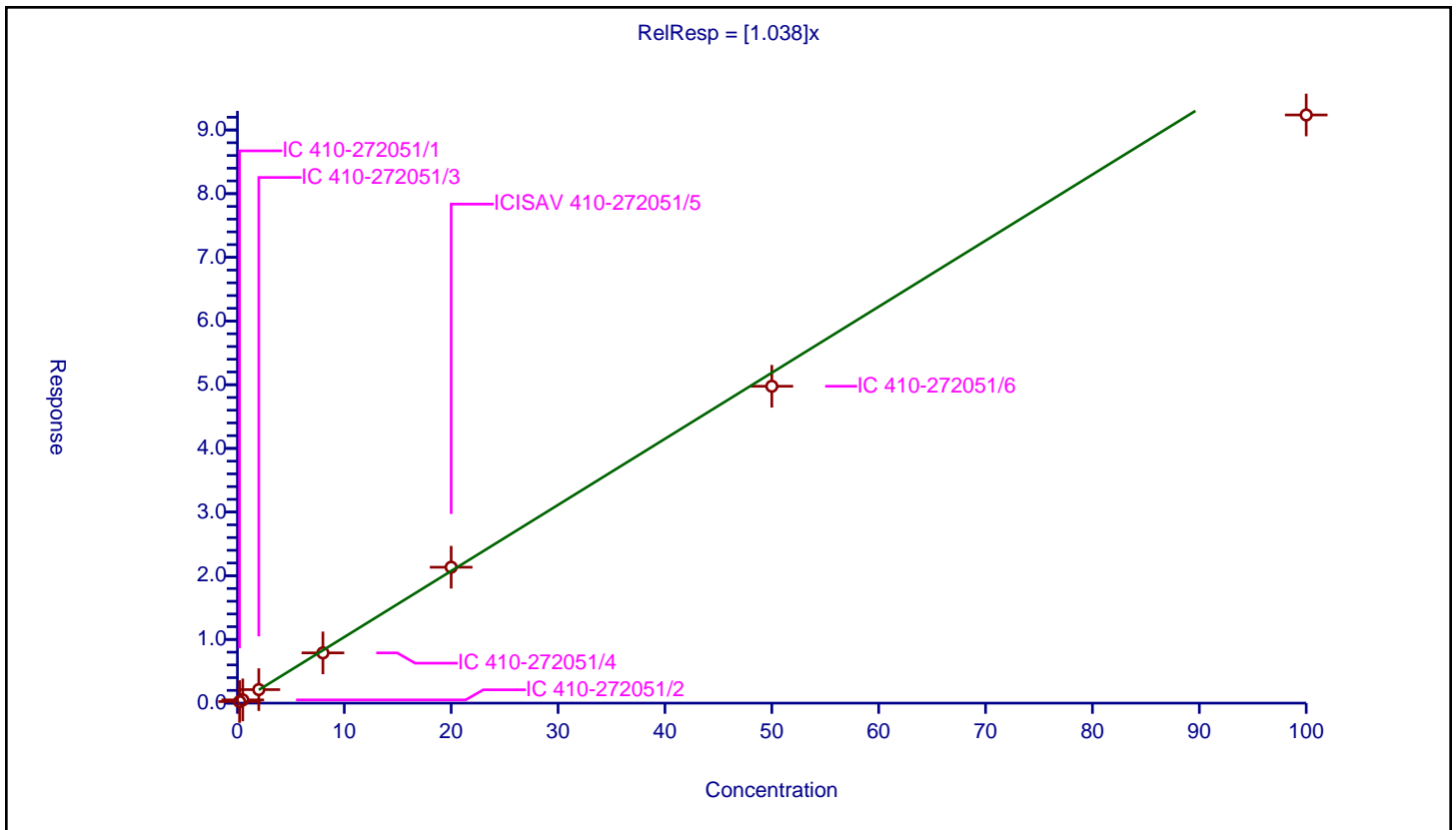
/ Perfluorodecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.038

Error Coefficients	
Standard Error:	7210000
Relative Standard Error:	8.7
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.242121	10.0	1978966.0	1.210607	Y
2	IC 410-272051/2	0.5	0.509099	10.0	1975274.0	1.018198	Y
3	IC 410-272051/3	2.0	2.123954	10.0	1786583.0	1.061977	Y
4	IC 410-272051/4	8.0	7.88903	10.0	1875882.0	0.986129	Y
5	ICISAV 410-272051/5	20.0	21.341814	10.0	1793818.0	1.067091	Y
6	IC 410-272051/6	50.0	49.75824	10.0	1868920.0	0.995165	Y
7	IC 410-272051/7	100.0	92.358061	10.0	1563297.0	0.923581	Y



Calibration

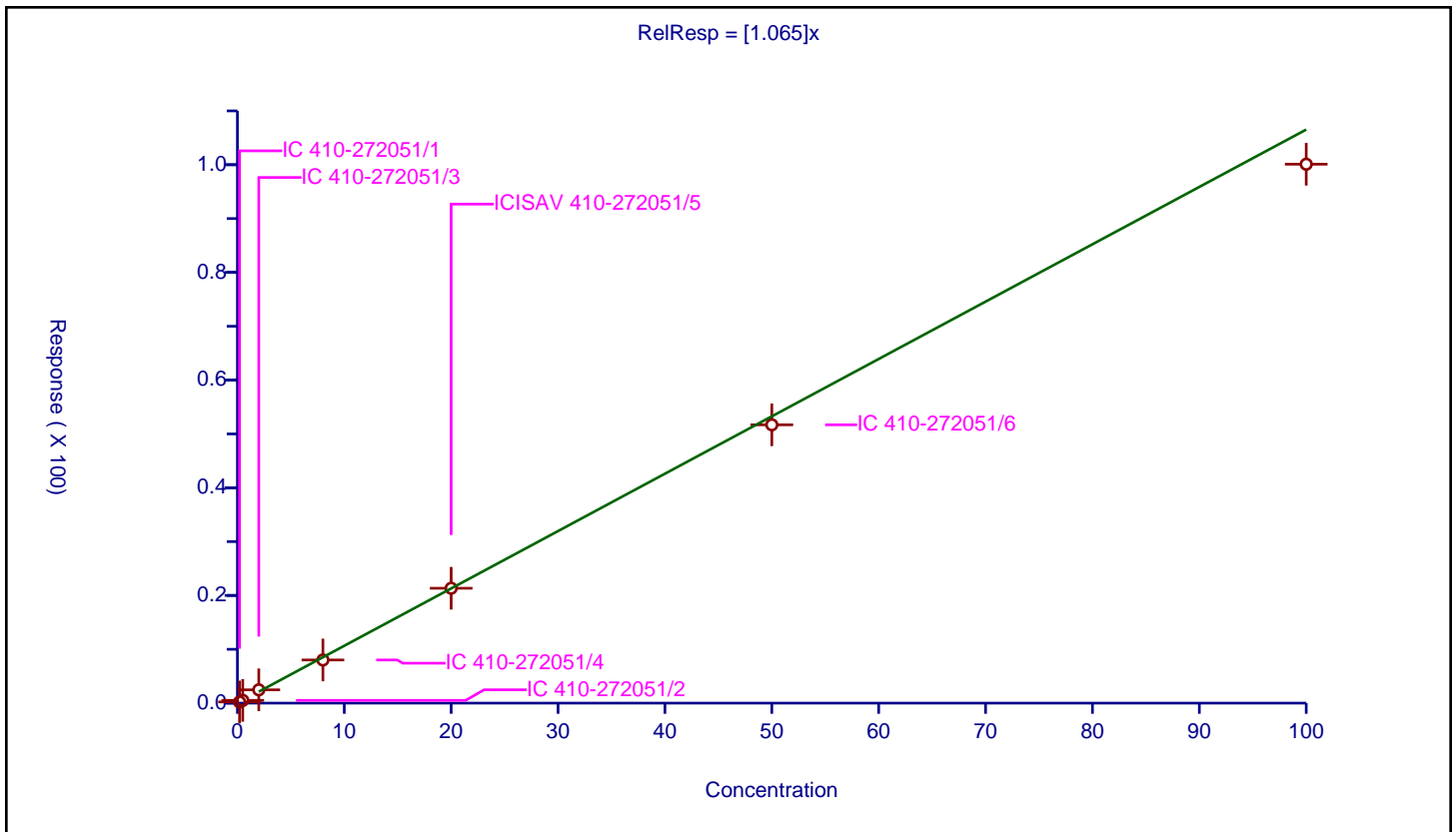
/ Perfluorooctanesulfonamide

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

Curve Coefficients	
Intercept:	0
Slope:	1.065

Error Coefficients	
Standard Error:	17100000
Relative Standard Error:	7.7
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.21836	10.0	4434931.0	1.091798	Y
2	IC 410-272051/2	0.5	0.512288	10.0	4452784.0	1.024577	Y
3	IC 410-272051/3	2.0	2.473043	10.0	3684837.0	1.236521	Y
4	IC 410-272051/4	8.0	8.018584	10.0	4469328.0	1.002323	Y
5	ICISAV 410-272051/5	20.0	21.336827	10.0	4240465.0	1.066841	Y
6	IC 410-272051/6	50.0	51.693849	10.0	4131241.0	1.033877	Y
7	IC 410-272051/7	100.0	100.095715	10.0	3469663.0	1.000957	Y



Calibration

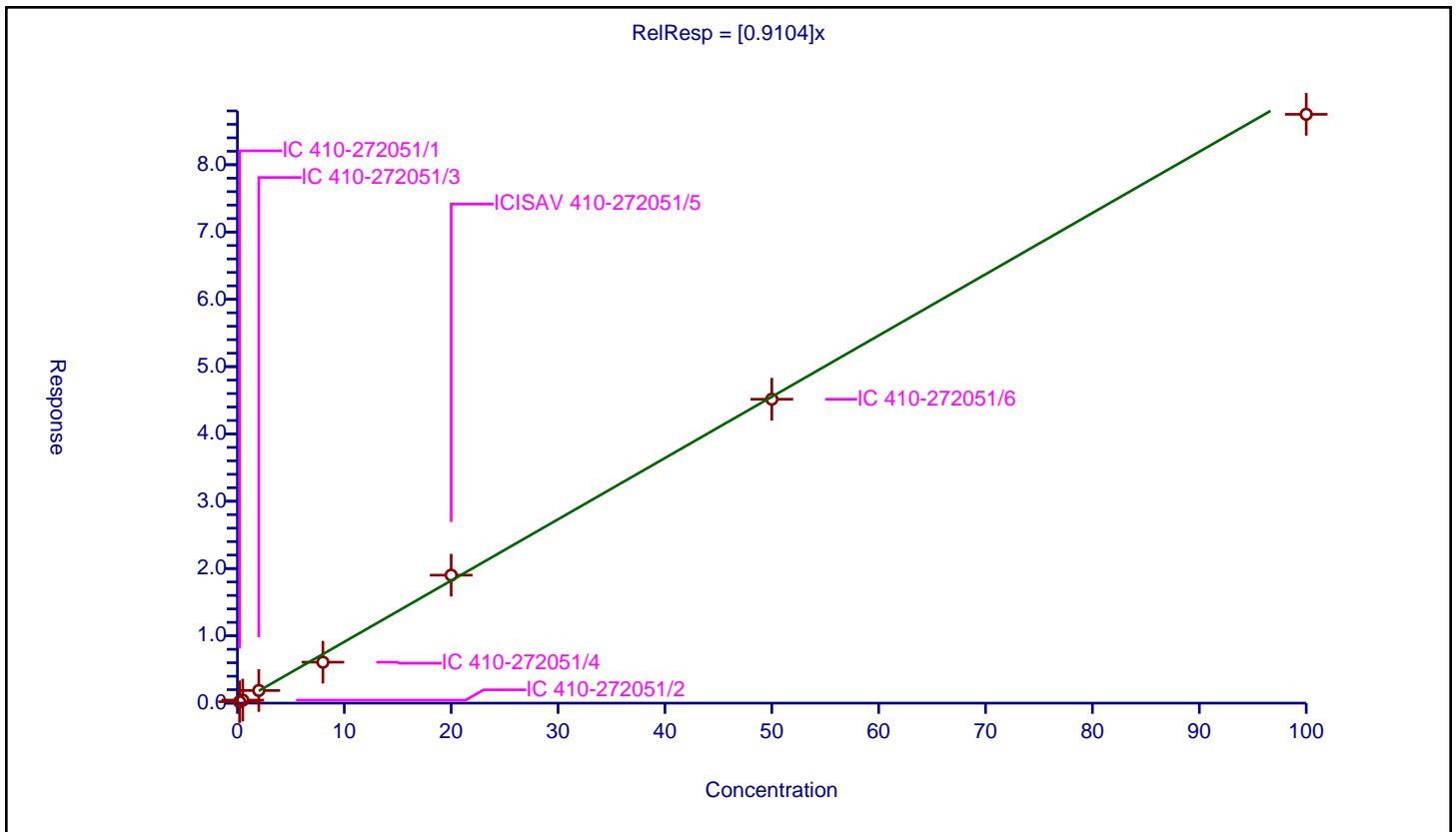
/ N-methylperfluorooctanesulfonamidoacetic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.9104

Error Coefficients	
Standard Error:	2570000
Relative Standard Error:	9.5
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.208948	10.0	734730.0	1.044738	Y
2	IC 410-272051/2	0.5	0.449373	10.0	767937.0	0.898746	Y
3	IC 410-272051/3	2.0	1.879593	10.0	686654.0	0.939796	Y
4	IC 410-272051/4	8.0	6.083638	10.0	767120.0	0.760455	Y
5	ICISAV 410-272051/5	20.0	19.016429	10.0	706487.0	0.950821	Y
6	IC 410-272051/6	50.0	45.15747	10.0	714424.0	0.903149	Y
7	IC 410-272051/7	100.0	87.492257	10.0	595029.0	0.874923	Y



Calibration

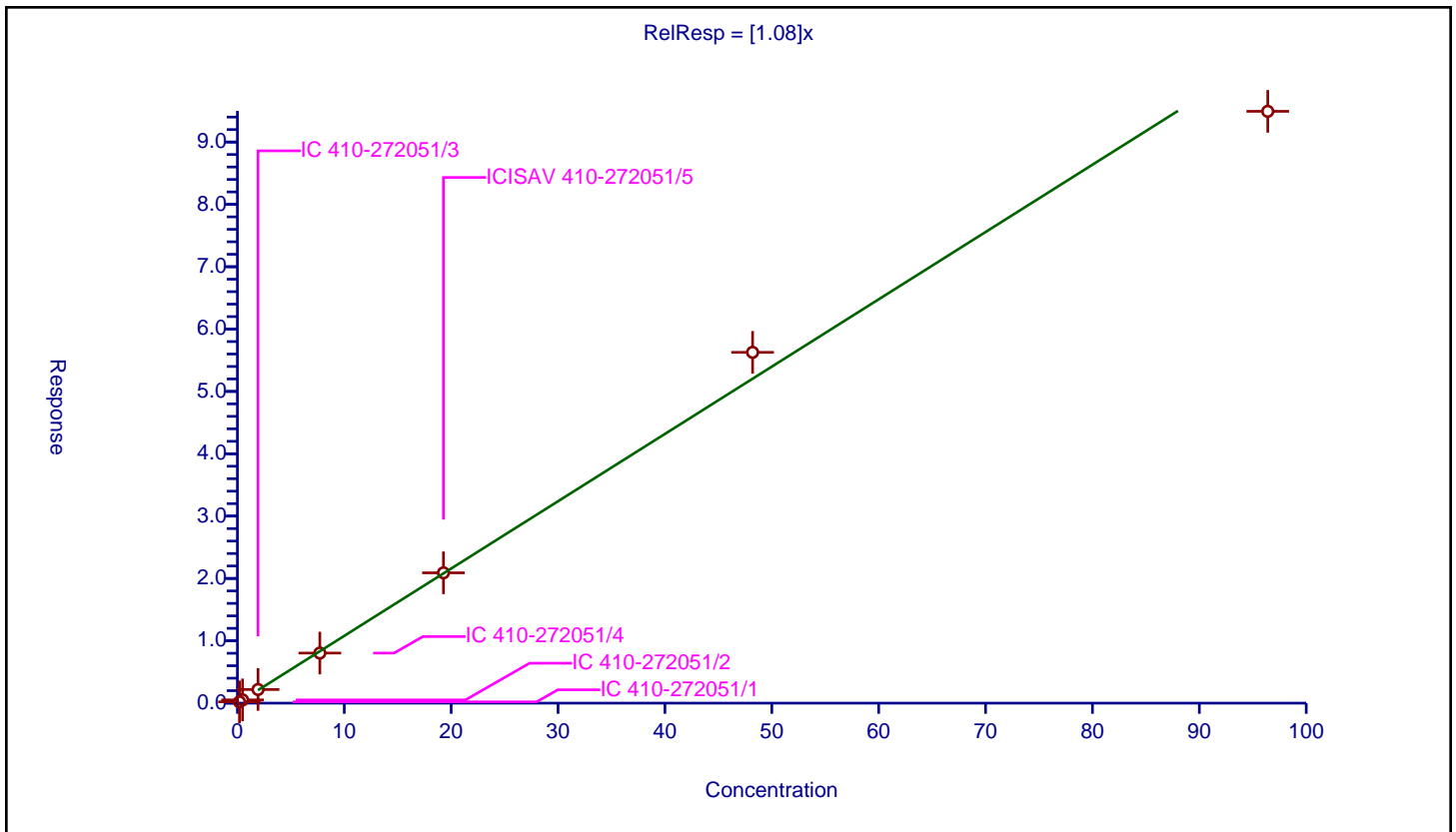
/ Perfluorodecanesulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.08

Error Coefficients	
Standard Error:	11700000
Relative Standard Error:	5.5
Correlation Coefficient:	0.980
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.1928	0.206393	9.56	3064122.0	1.070503	Y
2	IC 410-272051/2	0.482	0.517575	9.56	2881715.0	1.073807	Y
3	IC 410-272051/3	1.928	2.186934	9.56	2700744.0	1.134302	Y
4	IC 410-272051/4	7.712	8.035571	9.56	2708769.0	1.041957	Y
5	ICISAV 410-272051/5	19.28	20.900726	9.56	2767662.0	1.084063	Y
6	IC 410-272051/6	48.2	56.268393	9.56	2603744.0	1.167394	Y
7	IC 410-272051/7	96.4	94.925775	9.56	2356492.0	0.984707	Y



Calibration

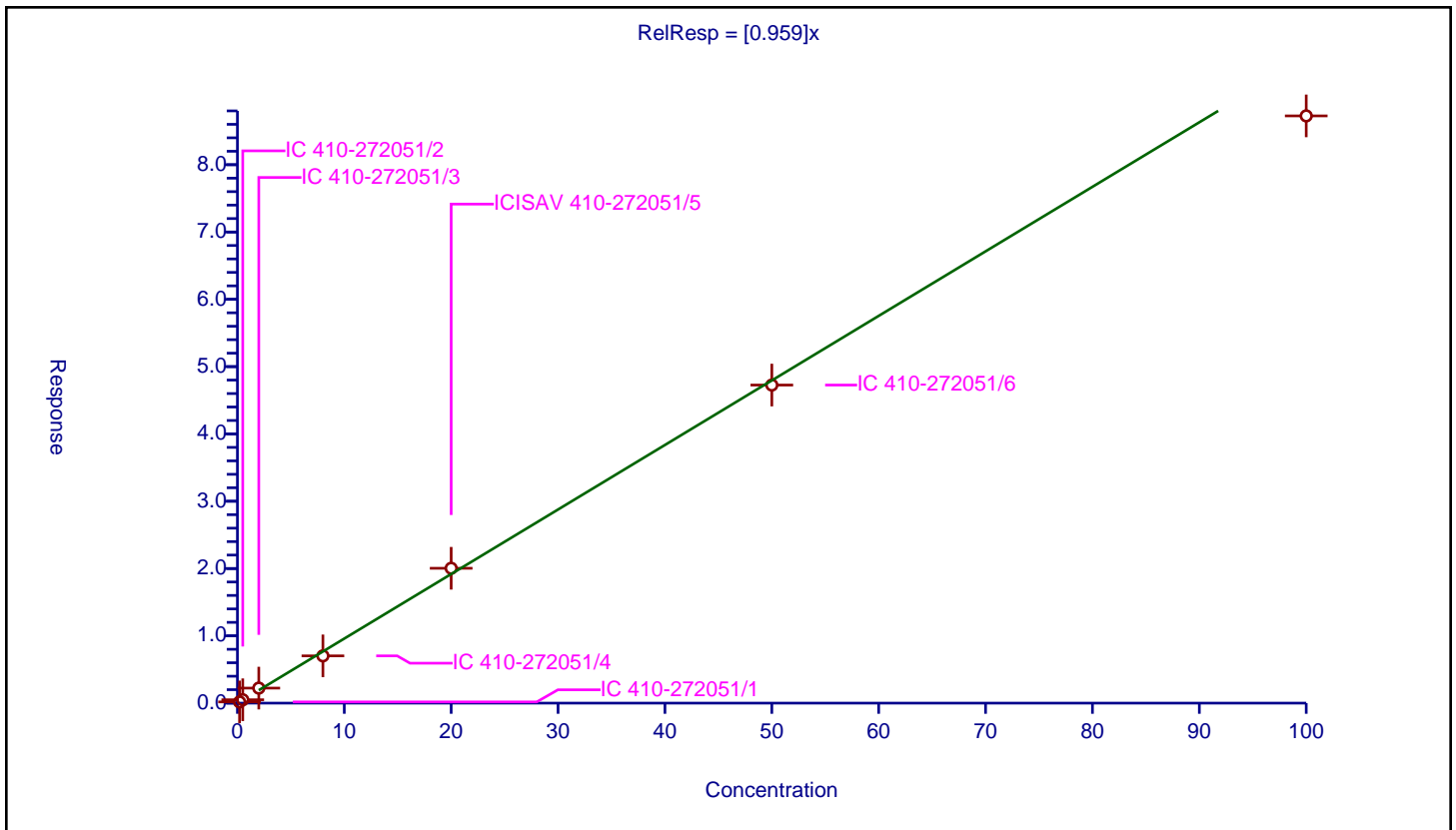
/ Perfluoroundecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.959

Error Coefficients	
Standard Error:	4930000
Relative Standard Error:	9.2
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.179641	10.0	1547972.0	0.898207	Y
2	IC 410-272051/2	0.5	0.49967	10.0	1448677.0	0.999339	Y
3	IC 410-272051/3	2.0	2.235351	10.0	1192931.0	1.117676	Y
4	IC 410-272051/4	8.0	7.021943	10.0	1417169.0	0.877743	Y
5	ICISAV 410-272051/5	20.0	20.039479	10.0	1316665.0	1.001974	Y
6	IC 410-272051/6	50.0	47.262542	10.0	1322815.0	0.945251	Y
7	IC 410-272051/7	100.0	87.254752	10.0	1138786.0	0.872548	Y



Calibration

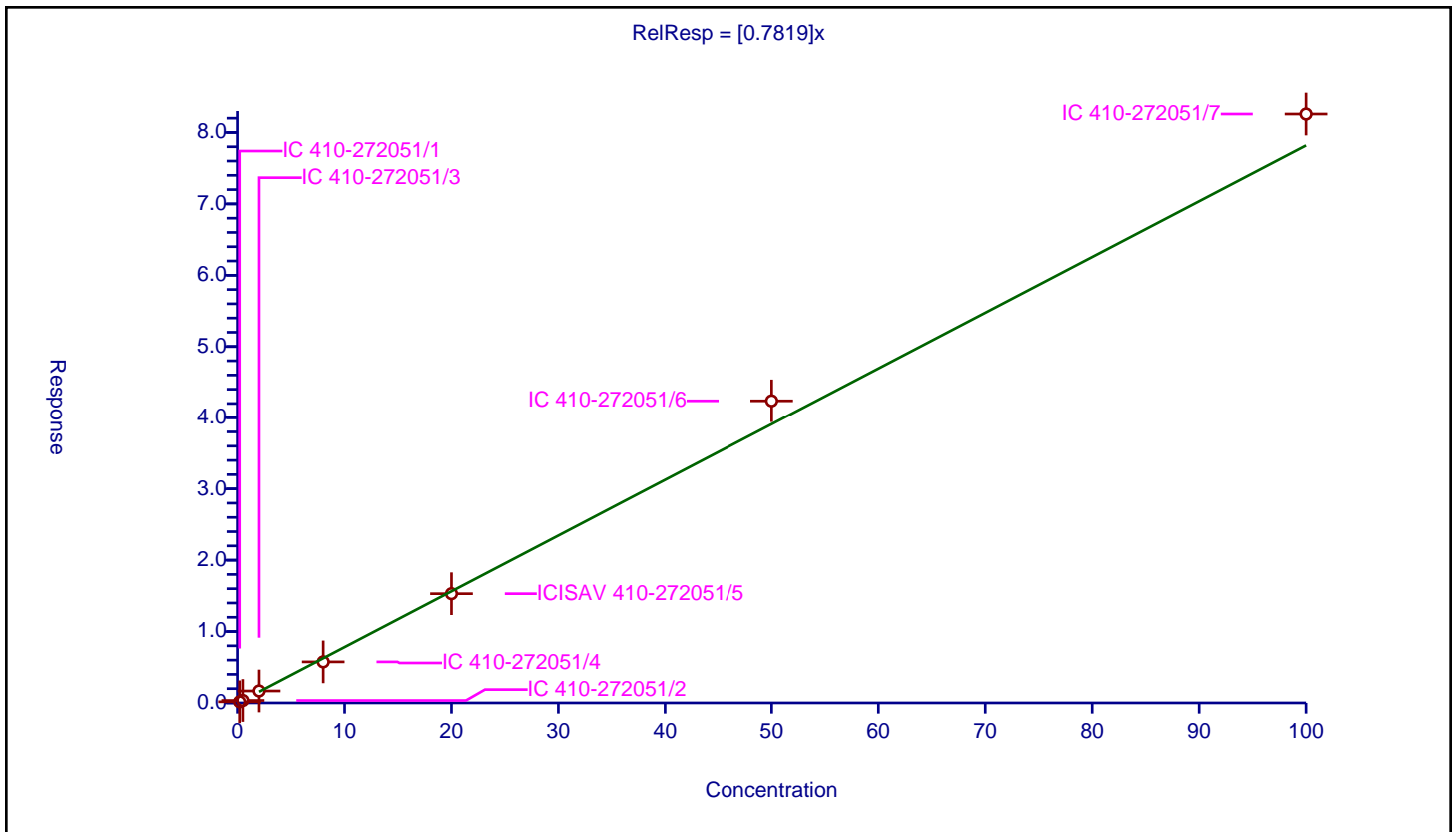
/ N-ethylperfluorooctanesulfonamidoacetic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.7819

Error Coefficients	
Standard Error:	1890000
Relative Standard Error:	8.0
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.159135	10.0	635248.0	0.795674	Y
2	IC 410-272051/2	0.5	0.341771	10.0	661116.0	0.683541	Y
3	IC 410-272051/3	2.0	1.673975	10.0	599346.0	0.836987	Y
4	IC 410-272051/4	8.0	5.748463	10.0	628314.0	0.718558	Y
5	ICISAV 410-272051/5	20.0	15.300617	10.0	658695.0	0.765031	Y
6	IC 410-272051/6	50.0	42.379484	10.0	574196.0	0.84759	Y
7	IC 410-272051/7	100.0	82.581872	10.0	458826.0	0.825819	Y



Calibration

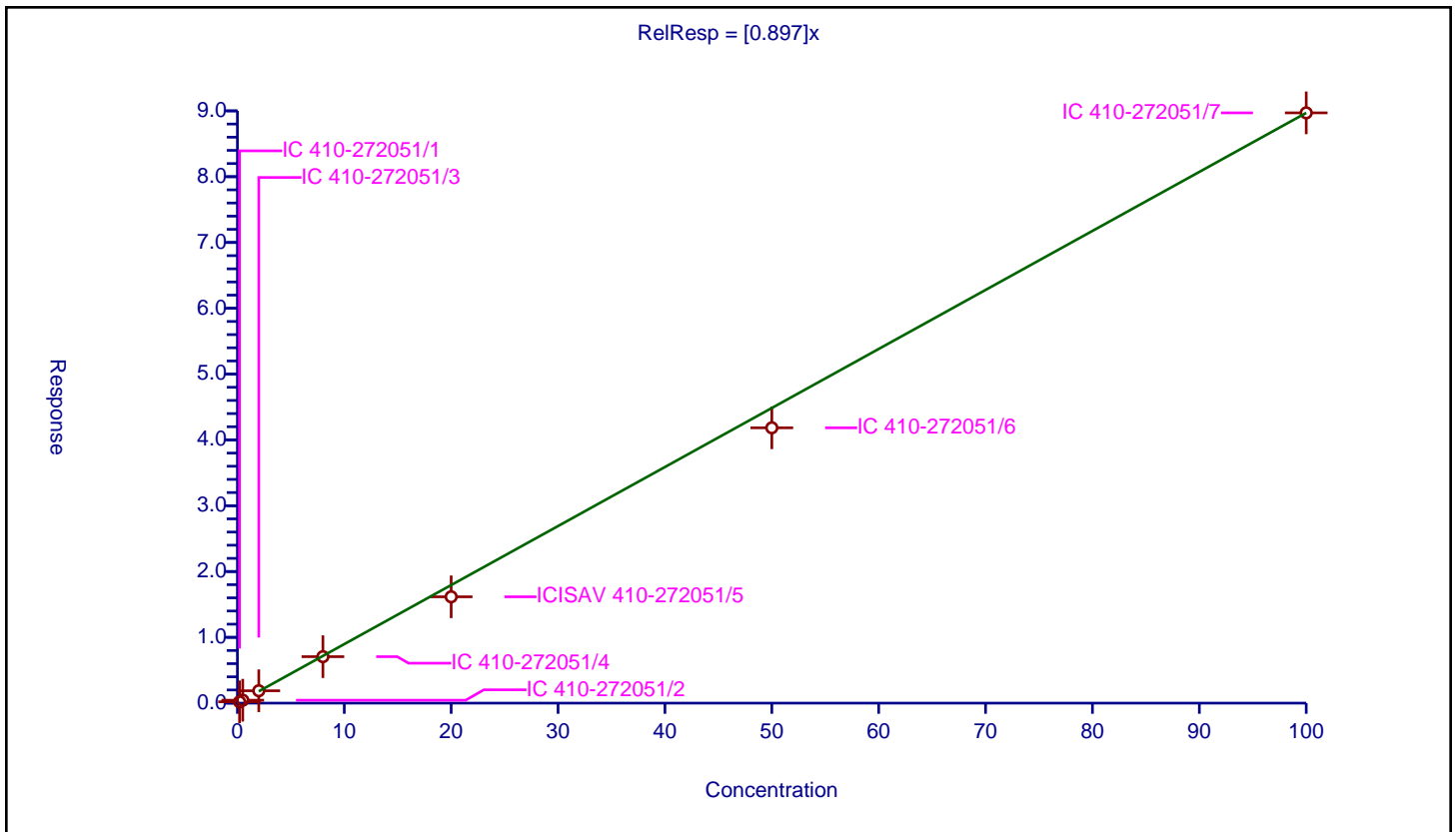
/ 10:2 FTUCA

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

Curve Coefficients	
Intercept:	0
Slope:	0.897

Error Coefficients	
Standard Error:	5710000
Relative Standard Error:	8.1
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.206017	10.0	1930082.0	1.030086	Y
2	IC 410-272051/2	0.5	0.441999	10.0	2086206.0	0.883997	Y
3	IC 410-272051/3	2.0	1.880463	10.0	1815159.0	0.940232	Y
4	IC 410-272051/4	8.0	7.061985	10.0	1837938.0	0.882748	Y
5	ICISAV 410-272051/5	20.0	16.15994	10.0	1866044.0	0.807997	Y
6	IC 410-272051/6	50.0	41.841412	10.0	1664000.0	0.836828	Y
7	IC 410-272051/7	100.0	89.699104	10.0	1301910.0	0.896991	Y



Calibration

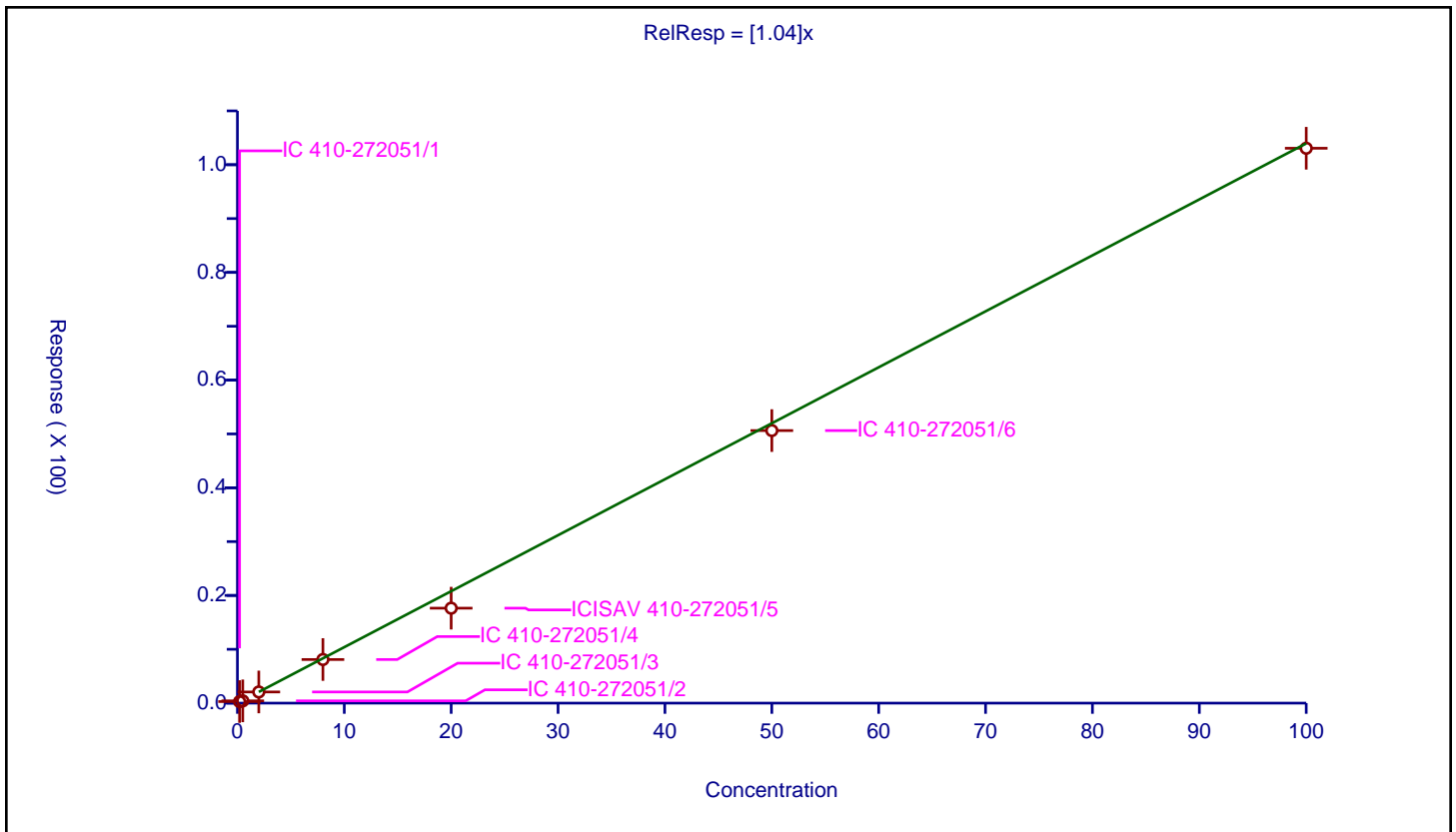
/ 10:2 FTCA

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

Curve Coefficients	
Intercept:	0
Slope:	1.04

Error Coefficients	
Standard Error:	538000
Relative Standard Error:	19.2
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.948

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.291484	10.0	171776.0	1.457421	Y
2	IC 410-272051/2	0.5	0.422181	10.0	199322.0	0.844362	Y
3	IC 410-272051/3	2.0	2.074731	10.0	145749.0	1.037366	Y
4	IC 410-272051/4	8.0	8.10205	10.0	156669.0	1.012756	Y
5	ICISAV 410-272051/5	20.0	17.63758	10.0	154092.0	0.881879	Y
6	IC 410-272051/6	50.0	50.621246	10.0	137691.0	1.012425	Y
7	IC 410-272051/7	100.0	103.058731	10.0	104527.0	1.030587	Y



Calibration

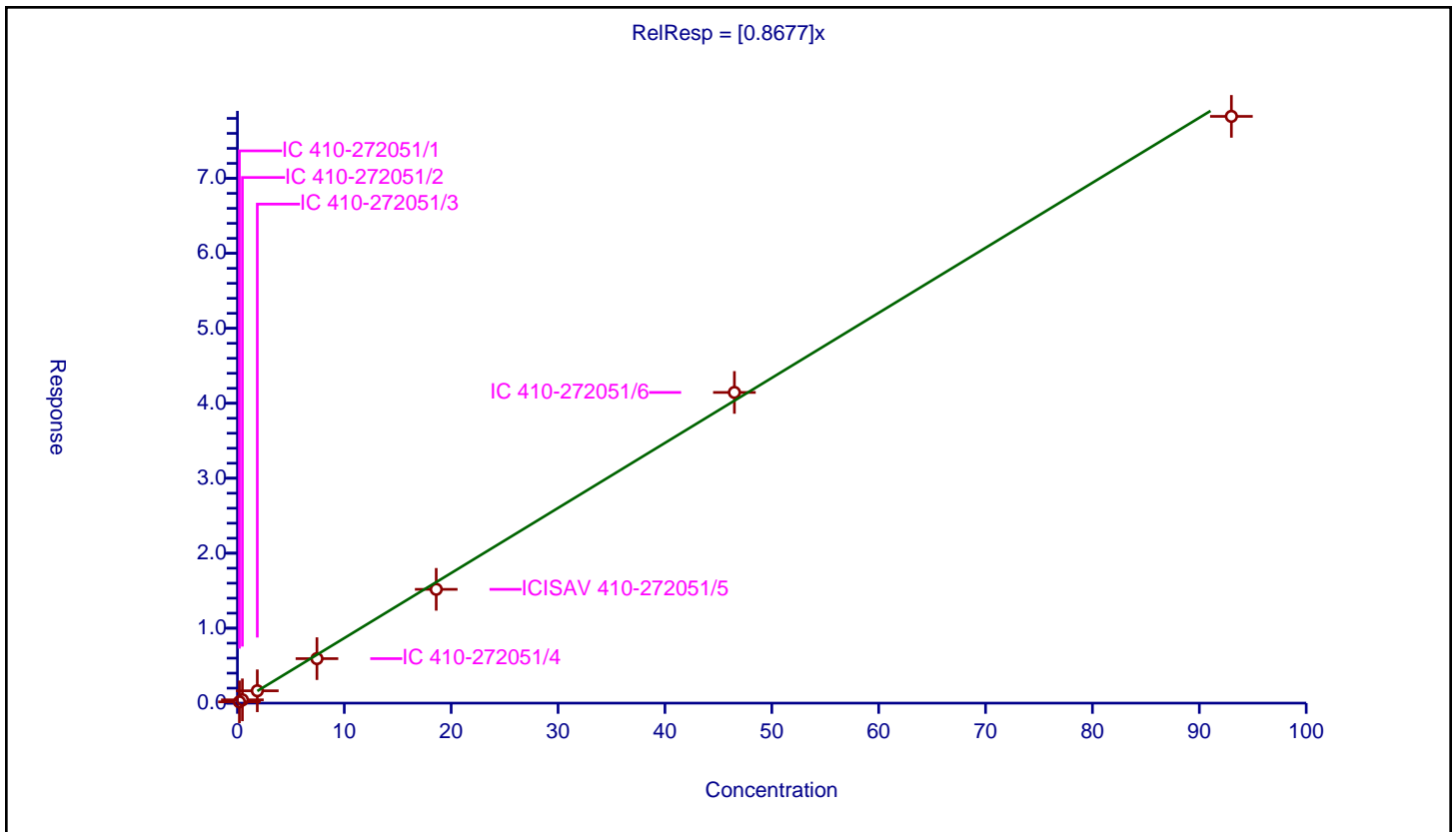
/ 11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.8677

Error Coefficients	
Standard Error:	9330000
Relative Standard Error:	5.9
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.186	0.167066	9.56	3064122.0	0.898202	Y
2	IC 410-272051/2	0.465	0.438251	9.56	2881715.0	0.942475	Y
3	IC 410-272051/3	1.86	1.648384	9.56	2700744.0	0.886228	Y
4	IC 410-272051/4	7.44	5.935096	9.56	2708769.0	0.797728	Y
5	ICISAV 410-272051/5	18.6	15.179929	9.56	2767662.0	0.816125	Y
6	IC 410-272051/6	46.5	41.44547	9.56	2603744.0	0.8913	Y
7	IC 410-272051/7	93.0	78.267789	9.56	2356492.0	0.841589	Y



Calibration

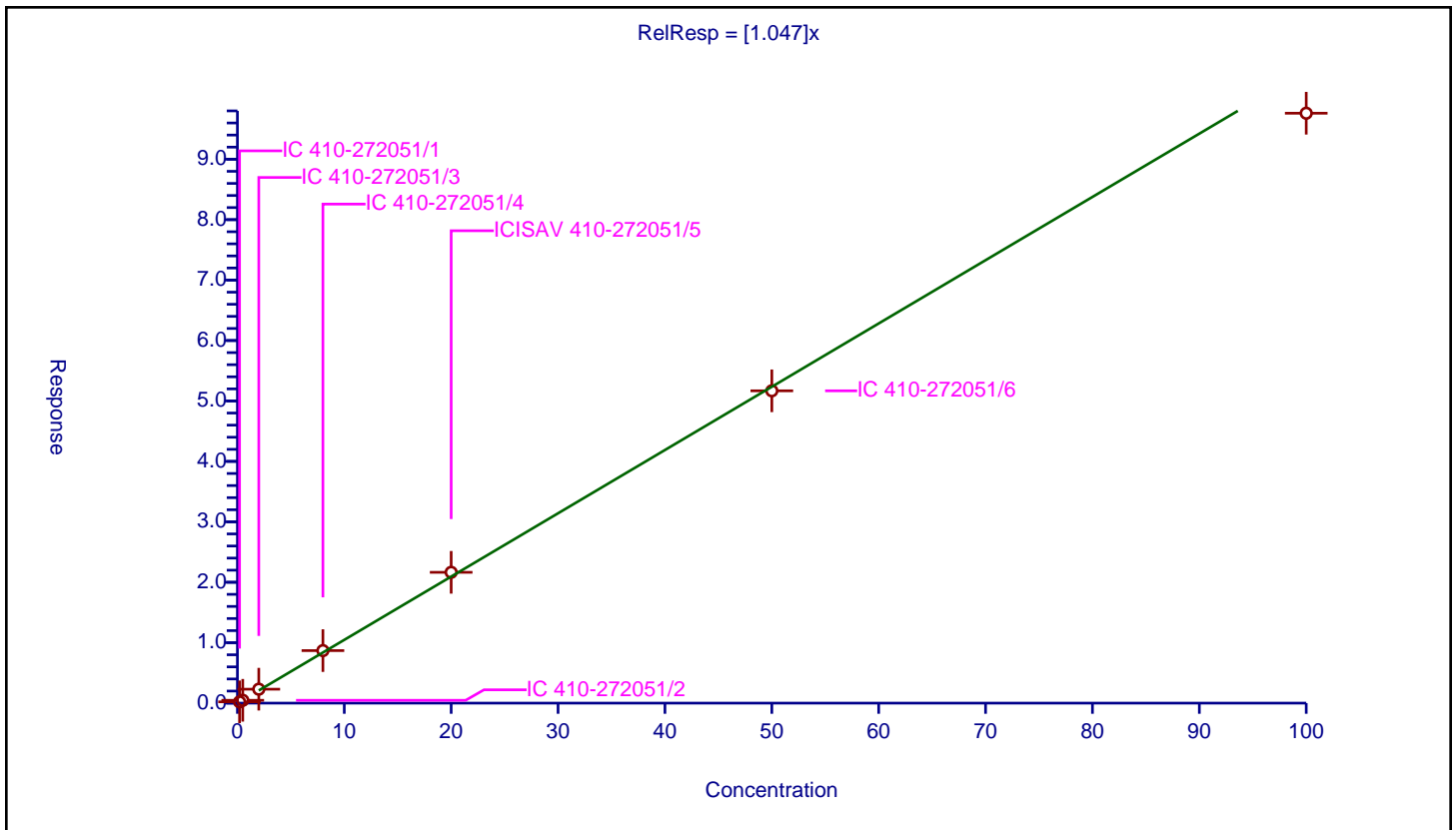
/ Perfluorododecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.047

Error Coefficients	
Standard Error:	3630000
Relative Standard Error:	6.9
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.212248	10.0	943425.0	1.06124	Y
2	IC 410-272051/2	0.5	0.468282	10.0	991347.0	0.936564	Y
3	IC 410-272051/3	2.0	2.305863	10.0	799501.0	1.152932	Y
4	IC 410-272051/4	8.0	8.691276	10.0	810247.0	1.086409	Y
5	ICISAV 410-272051/5	20.0	21.646696	10.0	852495.0	1.082335	Y
6	IC 410-272051/6	50.0	51.682393	10.0	853011.0	1.033648	Y
7	IC 410-272051/7	100.0	97.610116	10.0	765464.0	0.976101	Y



Calibration

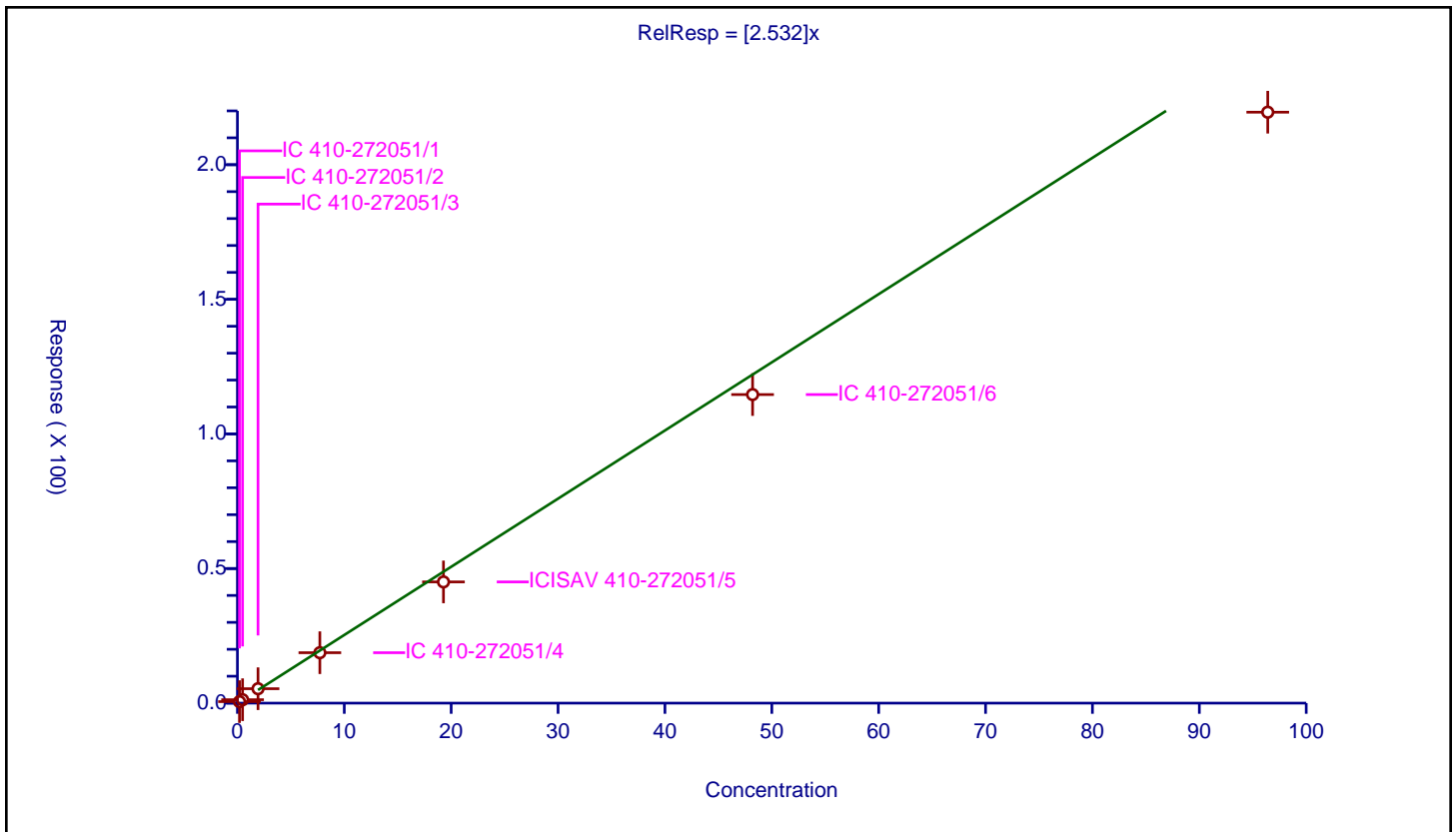
/ 1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2)

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

Curve Coefficients	
Intercept:	0
Slope:	2.532

Error Coefficients	
Standard Error:	627000
Relative Standard Error:	9.3
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.1928	0.555426	9.58	74132.0	2.88084	Y
2	IC 410-272051/2	0.482	1.275459	9.58	77341.0	2.64618	Y
3	IC 410-272051/3	1.928	5.355334	9.58	69181.0	2.777663	Y
4	IC 410-272051/4	7.712	18.730696	9.58	73841.0	2.428773	Y
5	ICISAV 410-272051/5	19.28	45.030297	9.58	68449.0	2.335596	Y
6	IC 410-272051/6	48.2	114.620881	9.58	63138.0	2.378027	Y
7	IC 410-272051/7	96.4	219.511363	9.58	56245.0	2.277089	Y



Calibration

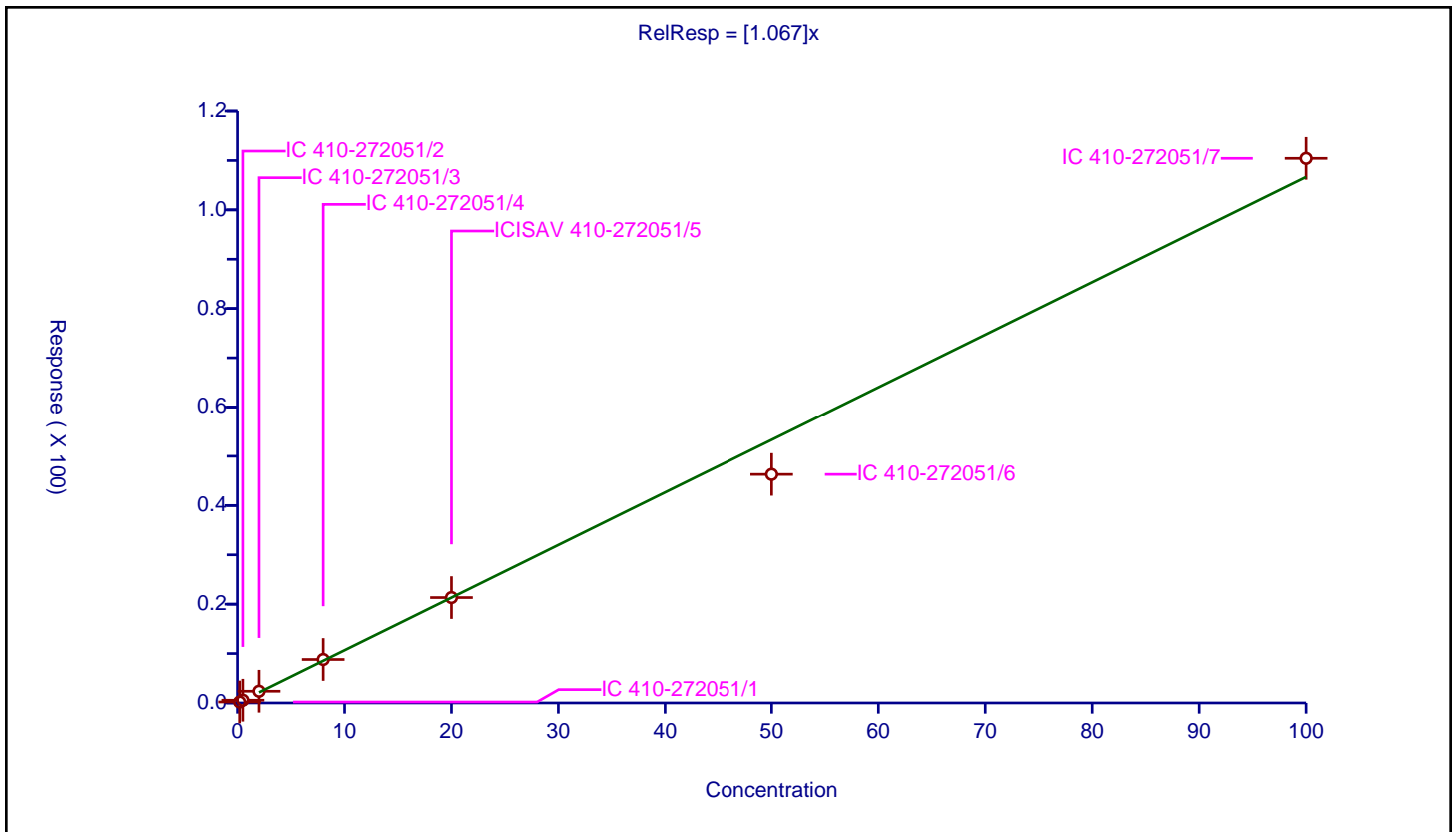
/ 2-(N-methylperfluoro-1-octanesulfonamido) ethanol

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

Curve Coefficients	
Intercept:	0
Slope:	1.067

Error Coefficients	
Standard Error:	2330000
Relative Standard Error:	8.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.195486	10.0	552724.0	0.977432	Y
2	IC 410-272051/2	0.5	0.553505	10.0	559670.0	1.107009	Y
3	IC 410-272051/3	2.0	2.3699	10.0	488105.0	1.18495	Y
4	IC 410-272051/4	8.0	8.799843	10.0	482212.0	1.09998	Y
5	ICISAV 410-272051/5	20.0	21.340831	10.0	507864.0	1.067042	Y
6	IC 410-272051/6	50.0	46.311687	10.0	565817.0	0.926234	Y
7	IC 410-272051/7	100.0	110.436223	10.0	447340.0	1.104362	Y



Calibration

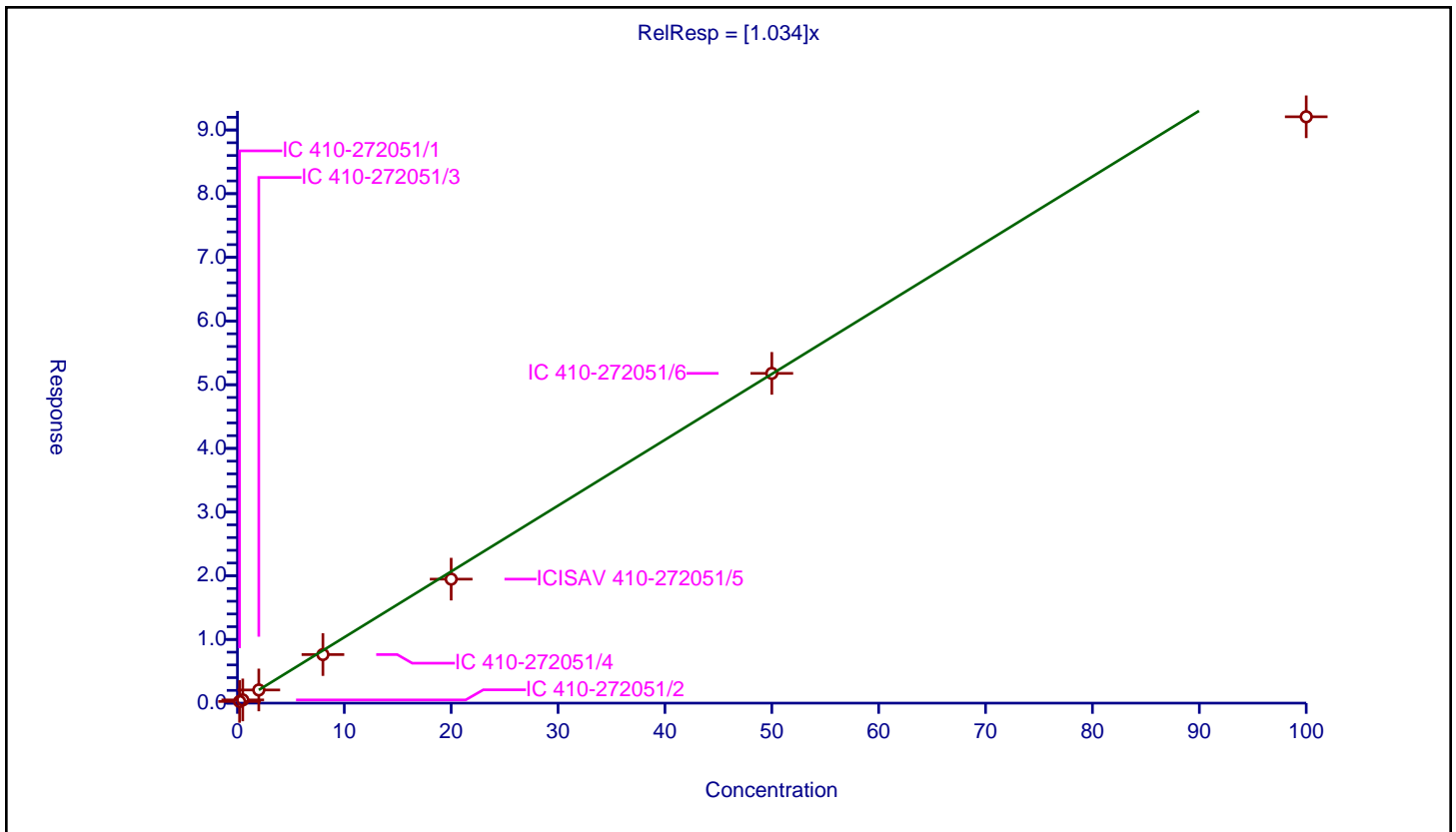
/ NMeFOSA

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

Curve Coefficients	
Intercept:	0
Slope:	1.034

Error Coefficients	
Standard Error:	2500000
Relative Standard Error:	12.4
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.261429	10.0	604830.0	1.307144	Y
2	IC 410-272051/2	0.5	0.505736	10.0	647769.0	1.011472	Y
3	IC 410-272051/3	2.0	2.067436	10.0	552438.0	1.033718	Y
4	IC 410-272051/4	8.0	7.62689	10.0	608855.0	0.953361	Y
5	ICISAV 410-272051/5	20.0	19.469241	10.0	589816.0	0.973462	Y
6	IC 410-272051/6	50.0	51.783364	10.0	594870.0	1.035667	Y
7	IC 410-272051/7	100.0	92.075309	10.0	558683.0	0.920753	Y



Calibration

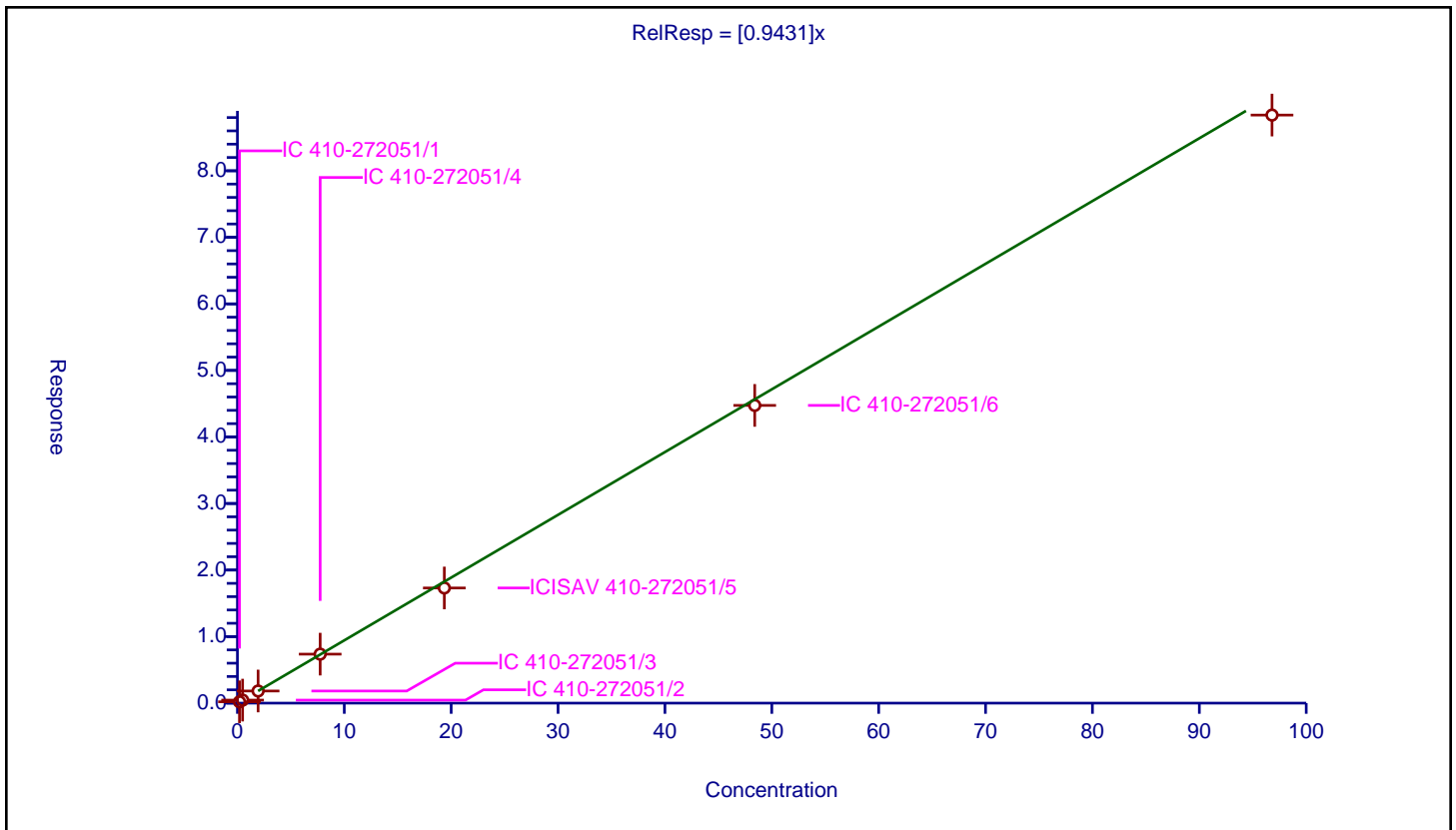
/ Perfluorododecanesulfonic acid (PFDoS)

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

Curve Coefficients	
Intercept:	0
Slope:	0.9431

Error Coefficients	
Standard Error:	10400000
Relative Standard Error:	4.9
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.1936	0.201117	9.56	3064122.0	1.038828	Y
2	IC 410-272051/2	0.484	0.454546	9.56	2881715.0	0.939145	Y
3	IC 410-272051/3	1.936	1.823712	9.56	2700744.0	0.942	Y
4	IC 410-272051/4	7.744	7.362819	9.56	2708769.0	0.950777	Y
5	ICISAV 410-272051/5	19.36	17.306197	9.56	2767662.0	0.893915	Y
6	IC 410-272051/6	48.4	44.742596	9.56	2603744.0	0.924434	Y
7	IC 410-272051/7	96.8	88.369926	9.56	2356492.0	0.912912	Y



Calibration

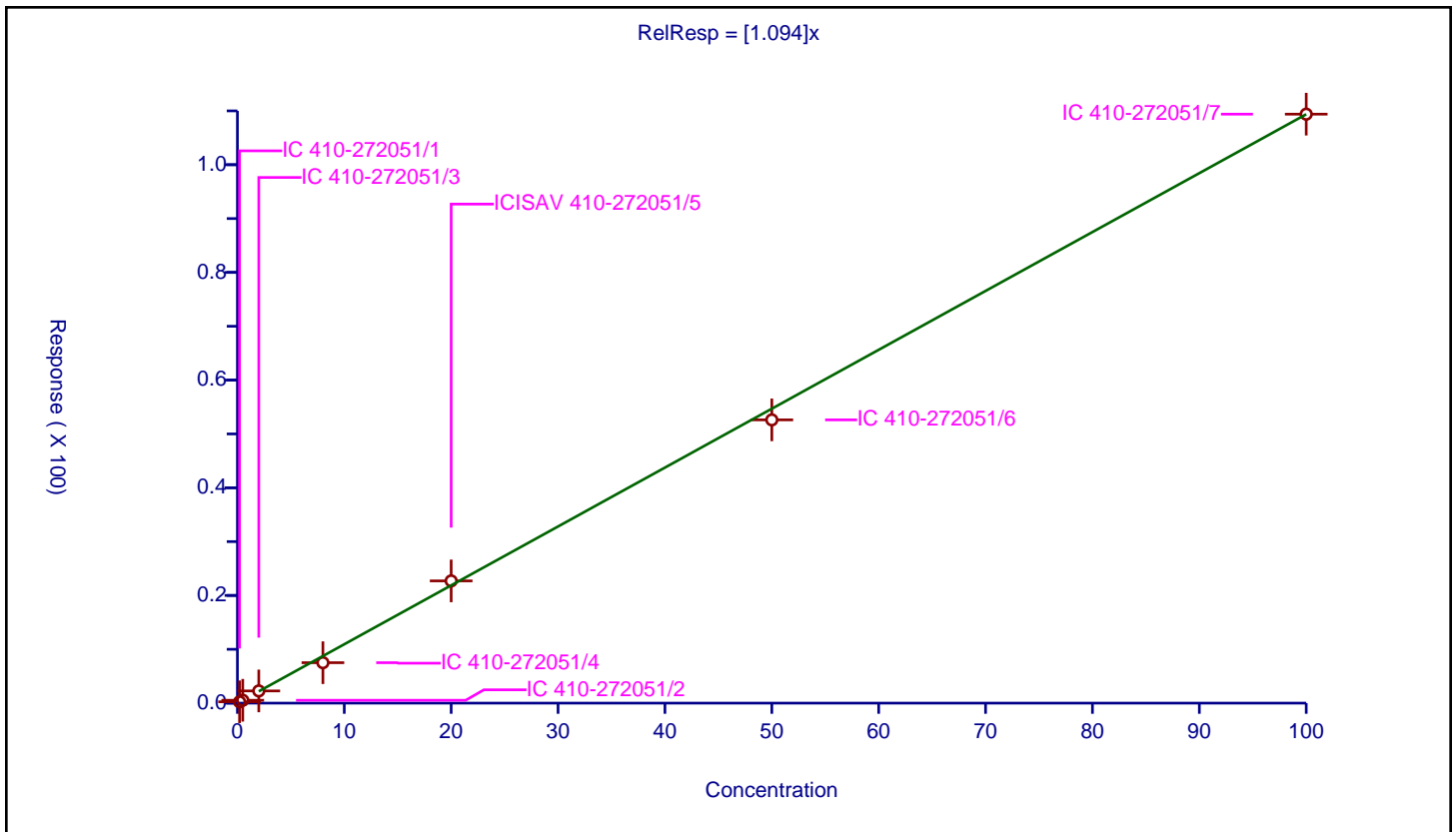
/ 2-(N-ethylperfluoro-1-octanesulfonamido) ethanol

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

Curve Coefficients	
Intercept:	0
Slope:	1.094

Error Coefficients	
Standard Error:	2460000
Relative Standard Error:	8.4
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.247765	10.0	615179.0	1.238826	Y
2	IC 410-272051/2	0.5	0.531617	10.0	603743.0	1.063234	Y
3	IC 410-272051/3	2.0	2.26805	10.0	527334.0	1.134025	Y
4	IC 410-272051/4	8.0	7.509381	10.0	589247.0	0.938673	Y
5	ICISAV 410-272051/5	20.0	22.701271	10.0	497451.0	1.135064	Y
6	IC 410-272051/6	50.0	52.611628	10.0	545966.0	1.052233	Y
7	IC 410-272051/7	100.0	109.389077	10.0	470583.0	1.093891	Y



Calibration

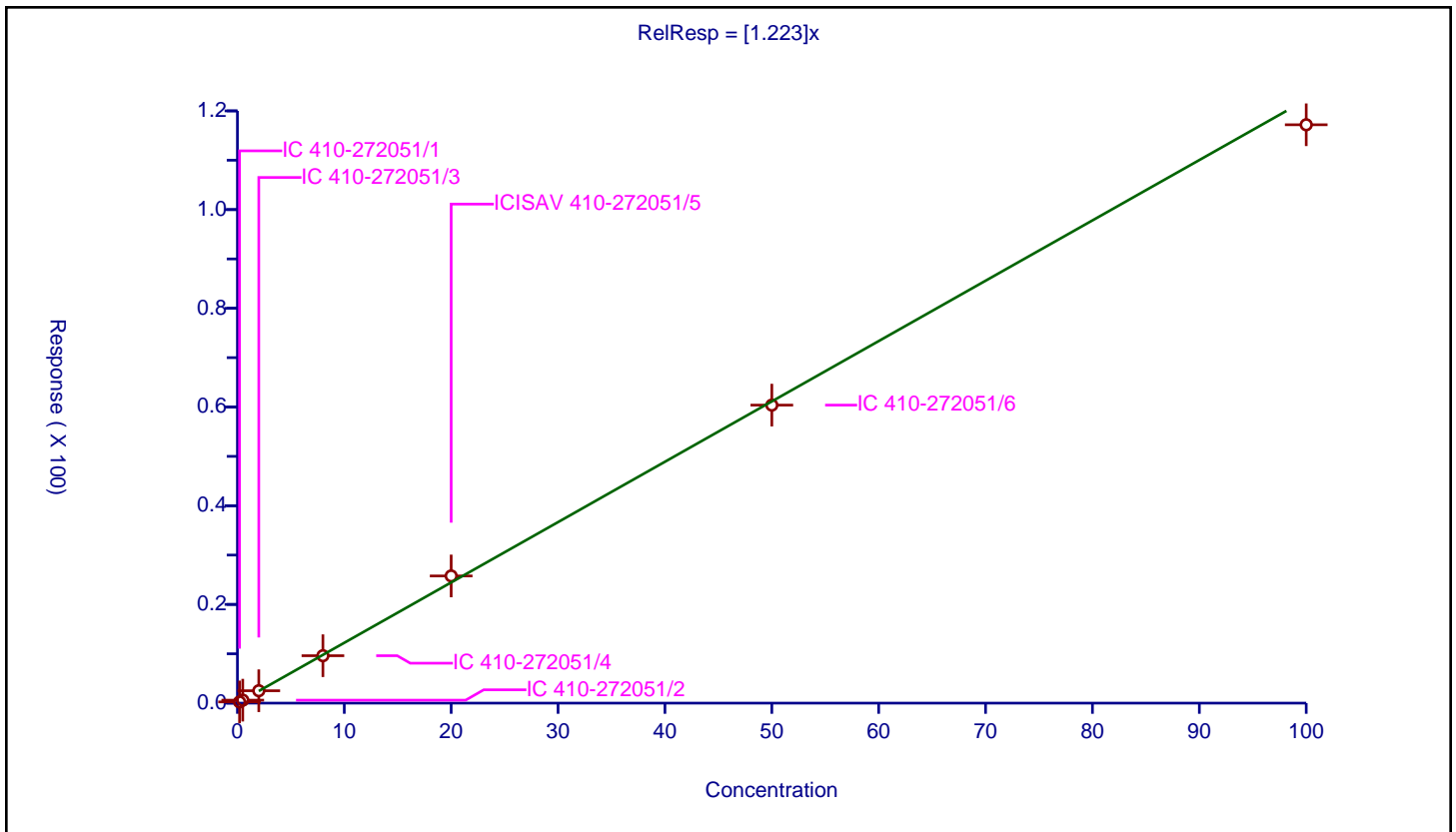
/ N-ethylperfluoro-1-octanesulfonamide

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

Curve Coefficients	
Intercept:	0
Slope:	1.223

Error Coefficients	
Standard Error:	2560000
Relative Standard Error:	3.2
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.24669	10.0	587094.0	1.233448	Y
2	IC 410-272051/2	0.5	0.600281	10.0	589557.0	1.200562	Y
3	IC 410-272051/3	2.0	2.510257	10.0	512091.0	1.255128	Y
4	IC 410-272051/4	8.0	9.611044	10.0	529546.0	1.201381	Y
5	ICISAV 410-272051/5	20.0	25.768531	10.0	517624.0	1.288427	Y
6	IC 410-272051/6	50.0	60.38327	10.0	515120.0	1.207665	Y
7	IC 410-272051/7	100.0	117.18765	10.0	447455.0	1.171877	Y



Calibration

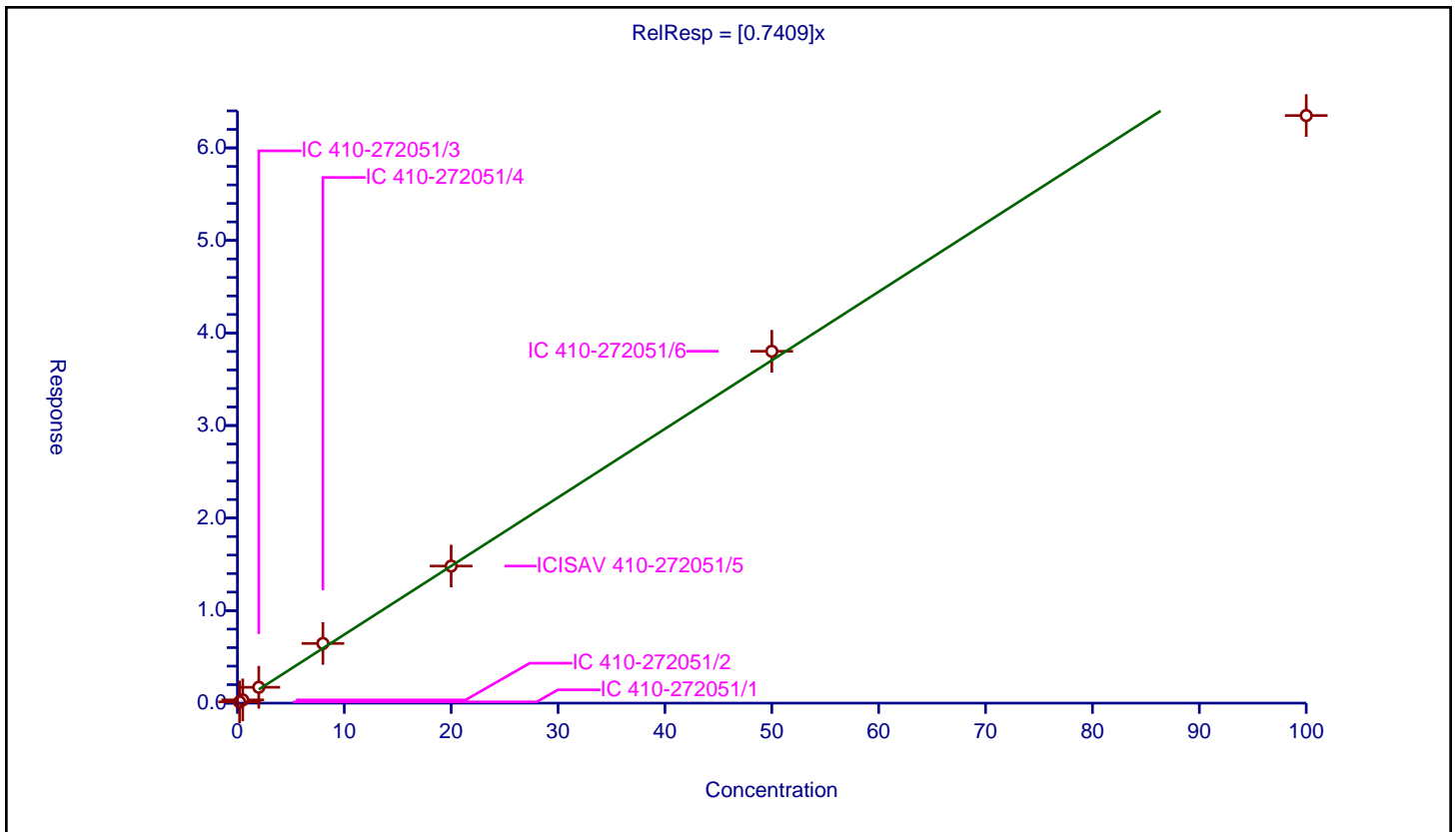
/ Perfluorotridecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.7409

Error Coefficients	
Standard Error:	2450000
Relative Standard Error:	10.1
Correlation Coefficient:	0.977
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.137488	10.0	943425.0	0.687442	Y
2	IC 410-272051/2	0.5	0.349918	10.0	991347.0	0.699836	Y
3	IC 410-272051/3	2.0	1.713231	10.0	799501.0	0.856616	Y
4	IC 410-272051/4	8.0	6.451786	10.0	810247.0	0.806473	Y
5	ICISAV 410-272051/5	20.0	14.813389	10.0	852495.0	0.740669	Y
6	IC 410-272051/6	50.0	38.024961	10.0	853011.0	0.760499	Y
7	IC 410-272051/7	100.0	63.494913	10.0	765464.0	0.634949	Y



Calibration

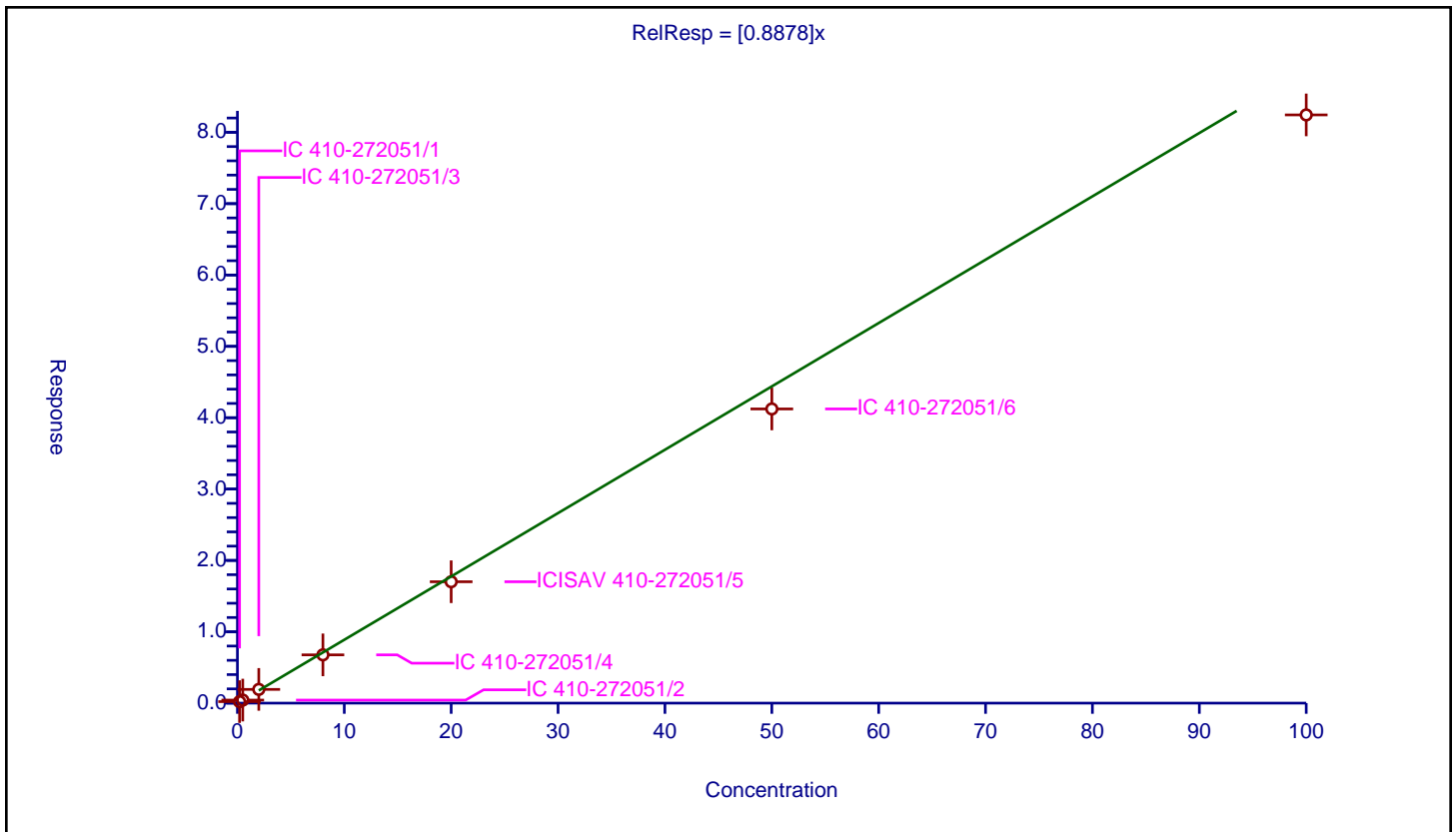
/ Perfluorotetradecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.8878

Error Coefficients	
Standard Error:	2580000
Relative Standard Error:	9.7
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.210243	10.0	837509.0	1.051213	Y
2	IC 410-272051/2	0.5	0.428063	10.0	815440.0	0.856127	Y
3	IC 410-272051/3	2.0	1.923496	10.0	717038.0	0.961748	Y
4	IC 410-272051/4	8.0	6.765415	10.0	747252.0	0.845677	Y
5	ICISAV 410-272051/5	20.0	17.012932	10.0	740780.0	0.850647	Y
6	IC 410-272051/6	50.0	41.228376	10.0	752750.0	0.824568	Y
7	IC 410-272051/7	100.0	82.436114	10.0	648385.0	0.824361	Y



Calibration

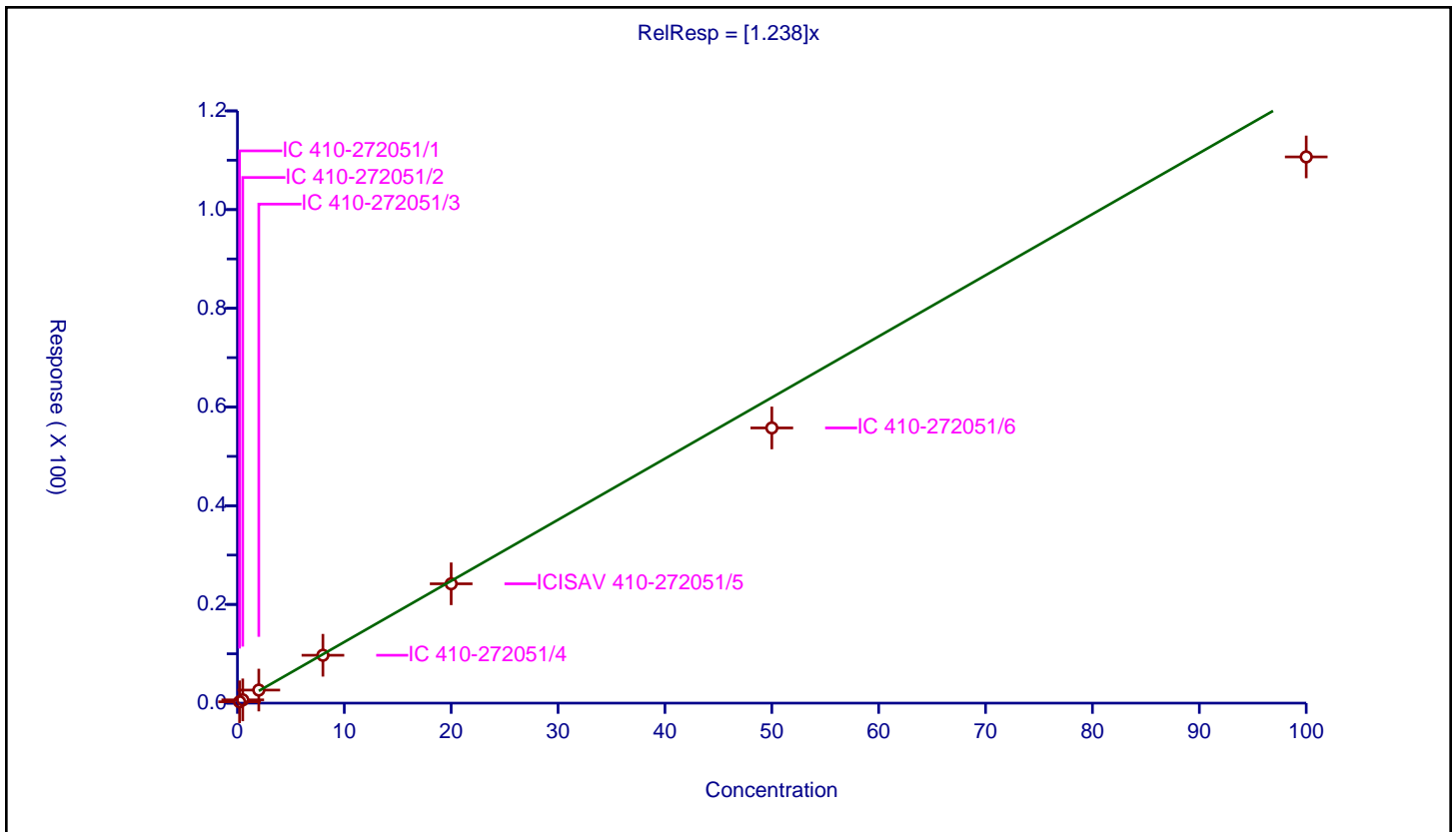
/ Perfluorohexadecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	1.238

Error Coefficients	
Standard Error:	3490000
Relative Standard Error:	8.6
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.274791	10.0	837509.0	1.373955	Y
2	IC 410-272051/2	0.5	0.663396	10.0	815440.0	1.326793	Y
3	IC 410-272051/3	2.0	2.649037	10.0	717038.0	1.324518	Y
4	IC 410-272051/4	8.0	9.702751	10.0	747252.0	1.212844	Y
5	ICISAV 410-272051/5	20.0	24.179959	10.0	740780.0	1.208998	Y
6	IC 410-272051/6	50.0	55.760877	10.0	752750.0	1.115218	Y
7	IC 410-272051/7	100.0	110.675232	10.0	648385.0	1.106752	Y



Calibration

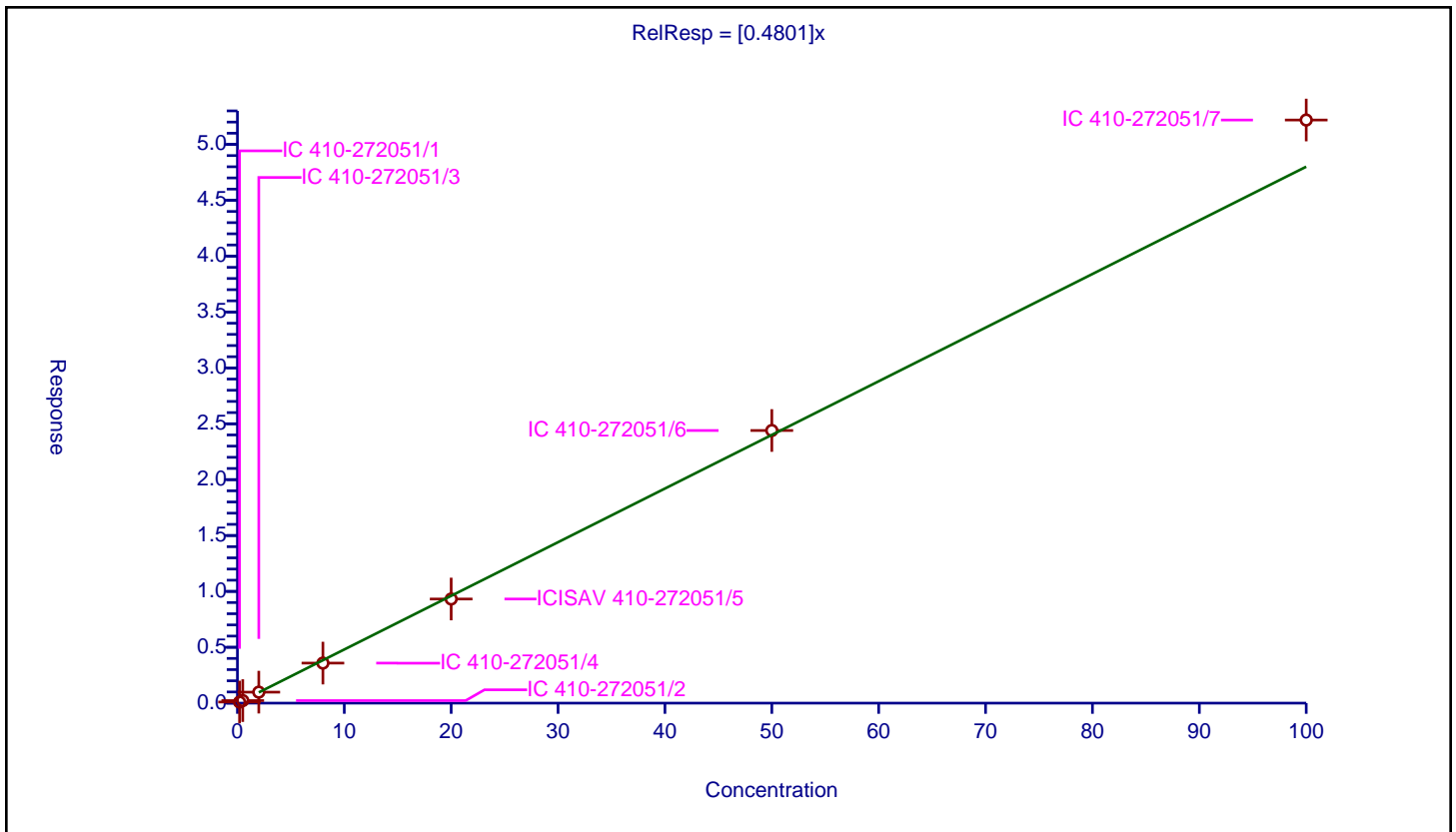
/ Perfluorooctadecanoic acid

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

Curve Coefficients	
Intercept:	0
Slope:	0.4801

Error Coefficients	
Standard Error:	1600000
Relative Standard Error:	5.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-272051/1	0.2	0.097706	10.0	837509.0	0.488532	Y
2	IC 410-272051/2	0.5	0.228306	10.0	815440.0	0.456612	Y
3	IC 410-272051/3	2.0	0.983058	10.0	717038.0	0.491529	Y
4	IC 410-272051/4	8.0	3.583958	10.0	747252.0	0.447995	Y
5	ICISAV 410-272051/5	20.0	9.318354	10.0	740780.0	0.465918	Y
6	IC 410-272051/6	50.0	24.397622	10.0	752750.0	0.487952	Y
7	IC 410-272051/7	100.0	52.182422	10.0	648385.0	0.521824	Y



FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: ICV 410-271695/9 Calibration Date: 07/01/2022 14:37
 Instrument ID: 30733 Calib Start Date: 07/01/2022 13:08
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/01/2022 14:15
 Lab File ID: 22JUL01XMCAL-09.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
MTP	AveID	0.0671	0.0630		1.88	2.00	-6.2	30.0
PPF Acid	AveID	0.4070	0.3994		1.96	2.00	-1.9	30.0
PFMOAA	AveID	0.2004	0.1990		1.99	2.00	-0.7	30.0
Perfluorobutanoic acid	AveID	0.9493	0.999		2.10	2.00	5.2	30.0
R-EVE	AveID	0.1597	0.1519		1.90	2.00	-4.9	30.0
R-PSDA	AveID	0.0304	0.0282		1.86	2.00	-7.0	30.0
Hydrolyzed PSDA	AveID	0.2005	0.1899		1.90	2.00	-5.2	30.0
PMPA	AveID	0.4660	0.4821		2.07	2.00	3.5	30.0
Perfluoropropanesulfonic acid	AveID	0.4460	0.4615		1.90	1.83	3.5	30.0
NVHOS	AveID	0.2819	0.2854		2.03	2.00	1.3	30.0
PFECA F	AveID	1.034	1.025		1.98	2.00	-0.9	30.0
PFO2HxA	AveID	0.3315	0.3466		2.09	2.00	4.6	30.0
3:3 FTCA	AveID	0.0668	0.0763		2.28	2.00	14.2	30.0
Perfluoropentanoic acid	AveID	0.9776	1.007		2.06	2.00	3.0	30.0
Perfluorobutanesulfonic acid	AveID	1.043	1.063		1.80	1.77	2.0	30.0
PEPA	AveID	0.1977	0.2065		2.09	2.00	4.5	30.0
PFECA A	AveID	0.5804	0.5753		1.98	2.00	-0.9	30.0
Perfluoro (2-ethoxyethane) sulfonic acid	AveID	2.513	2.654		1.88	1.78	5.6	30.0
PFECA B	AveID	0.7432	0.7339		1.97	2.00	-1.3	30.0
4:2 Fluorotelomer sulfonic acid	AveID	2.504	2.791		2.08	1.87	11.5	30.0
Perfluorohexanoic acid	AveID	0.8992	0.8475		1.89	2.00	-5.7	30.0
Perfluoropentanesulfonic acid	AveID	0.9815	1.000		1.91	1.88	1.9	30.0
PFO3OA	AveID	0.4036	0.4055		2.01	2.00	0.5	30.0
HFPODA	AveID	0.8779	0.9389		2.14	2.00	7.0	30.0
Hydro-EVE Acid	AveID	2.160	1.992		1.84	2.00	-7.8	30.0
R-PSDCA	AveID	2.090	2.035		1.95	2.00	-2.6	30.0
Perfluoroheptanoic acid	AveID	1.079	0.9360		1.73	2.00	-13.3	30.0
Perfluorohexanesulfonic acid	AveID	1.106	1.092		1.80	1.82	-1.3	30.0
Hydro-PS Acid	AveID	1.534	1.491		1.94	2.00	-2.8	30.0
DONA	AveID	1.658	1.533		1.75	1.89	-7.5	30.0
PFECA G	AveID	2.271	2.516		2.22	2.00	10.8	30.0
5:3 FTCA	AveID	0.2177	0.2023		1.86	2.00	-7.1	30.0
6:2 FTUCA	AveID	1.147	1.295		2.26	2.00	12.9	30.0
6:2 FTCA	AveID	1.072	0.9857		1.84	2.00	-8.1	30.0
PFO4DA	AveID	0.7025	0.7592		2.16	2.00	8.1	30.0
PS Acid	AveID	0.5388	0.5345		1.98	2.00	-0.8	30.0
EVE Acid	AveID	1.783	1.875		2.10	2.00	5.2	30.0
Perfluoro-4-ethylcyclohexane sulfonic acid	AveID	1.089	1.016		1.72	1.84	-6.7	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: ICV 410-271695/9 Calibration Date: 07/01/2022 14:37
 Instrument ID: 30733 Calib Start Date: 07/01/2022 13:08
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/01/2022 14:15
 Lab File ID: 22JUL01XMCAL-09.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
6:2 Fluorotelomer sulfonic acid	AveID	2.421	2.721		2.13	1.90	12.4	30.0
Perfluoroheptanesulfonic acid	AveID	1.020	0.996		1.86	1.90	-2.3	30.0
Perfluorooctanoic acid	AveID	1.017	1.015		2.00	2.00	-0.2	30.0
TAF	AveID	0.8021	0.7704		1.92	2.00	-4.0	30.0
Perfluorooctanesulfonic acid	AveID	1.100	1.151		1.94	1.85	4.7	30.0
Perfluorononanoic acid	AveID	0.998	1.018		2.04	2.00	1.9	30.0
7:3 FTCA	AveID	2.302	2.261		1.96	2.00	-1.8	30.0
8:2 FTUCA	AveID	1.052	1.236		2.35	2.00	17.4	30.0
8:2 FTCA	AveID	1.002	1.017		2.03	2.00	1.5	30.0
9Cl-PF3ONS	AveID	1.096	1.184		2.01	1.86	7.9	30.0
Perfluorononanesulfonic acid	AveID	1.148	1.180		1.97	1.92	2.8	30.0
8:2 Fluorotelomer sulfonic acid	AveID	3.416	3.008		1.69	1.92	-11.9	30.0
Perfluorodecanoic acid	AveID	1.037	0.9854		1.90	2.00	-4.9	30.0
Perfluorooctanesulfonamide	AveID	1.041	1.237		2.38	2.00	18.8	30.0
NMeFOSAA	AveID	0.8496	1.062		2.50	2.00	25.0	30.0
Perfluorodecanesulfonic acid	AveID	1.063	1.041		1.89	1.93	-2.1	30.0
Perfluoroundecanoic acid	AveID	0.9419	0.9867		2.10	2.00	4.8	30.0
NETFOSAA	AveID	0.8366	0.8085		1.93	2.00	-3.4	30.0
10:2 FTUCA	AveID	0.9204	0.8974		1.95	2.00	-2.5	30.0
10:2 FTCA	AveID	1.109	0.9700		1.75	2.00	-12.5	30.0
11Cl-PF3OUdS	AveID	0.8357	0.8746		1.95	1.86	4.7	30.0
Perfluorododecanoic acid	AveID	1.018	1.048		2.06	2.00	3.0	30.0
10:2 FTS	AveID	2.222	2.191		1.90	1.93	-1.4	30.0
NMeFOSE	AveID	1.113	1.195		2.15	2.00	7.4	30.0
NMeFOSA	AveID	1.004	1.035		2.06	2.00	3.0	30.0
Perfluorododecanesulfonic acid	AveID	0.9210	0.9516		2.00	1.94	3.3	30.0
NETFOSE	AveID	1.090	1.132		2.08	2.00	3.9	30.0
Perfluorotridecanoic acid	AveID	0.7488	0.8297		2.22	2.00	10.8	30.0
NETFOSA	AveID	1.230	1.262		2.05	2.00	2.6	30.0
Perfluorotetradecanoic acid	AveID	0.9078	0.8861		1.95	2.00	-2.4	30.0
Perfluorohexadecanoic acid	AveID	1.223	1.227		2.01	2.00	0.3	30.0
Perfluorooctadecanoic acid	AveID	0.4910	0.4570		1.86	2.00	-6.9	30.0
13C4 PFBA	Ave	1.123	1.104		9.83	10.0	-1.7	30.0
13C5 PFPeA	Ave	1.001	0.9694		9.69	10.0	-3.1	30.0
13C3 PFBS	Ave	1.811	1.739		8.93	9.30	-4.0	30.0
M2-4:2 FTS	Ave	0.0838	0.0730		8.13	9.34	-13.0	30.0
13C5 PFHxA	Ave	1.163	1.067		9.17	10.0	-8.3	30.0
13C3 HFPO-DA	Ave	0.3556	0.3099		8.71	10.0	-12.9	30.0
13C3 PFHxS	Ave	1.532	1.408		8.69	9.46	-8.1	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: ICV 410-271695/9 Calibration Date: 07/01/2022 14:37
 Instrument ID: 30733 Calib Start Date: 07/01/2022 13:08
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/01/2022 14:15
 Lab File ID: 22JUL01XMCAL-09.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFHpA	Ave	1.126	1.164		10.3	10.0	3.4	30.0
13C2-2H-Perfluoro-2-octenoic acid	Ave	1.174	1.066		9.08	10.0	-9.2	30.0
13C2-2-Perfluorohexylethanoic acid	Ave	0.1232	0.1258		10.2	10.0	2.2	30.0
M2-6:2 FTS	Ave	0.0571	0.0495		8.23	9.50	-13.3	30.0
13C8 PFOA	Ave	1.005	0.9725		9.68	10.0	-3.2	30.0
13C8 PFOS	Ave	1.020	0.9878		9.26	9.56	-3.1	30.0
13C9 PFNA	Ave	0.7025	0.7250		10.3	10.0	3.2	30.0
13C2-2H-Perfluoro-2-decenoic acid	Ave	1.096	0.9690		8.84	10.0	-11.6	30.0
13C2-2-Perfluorooctylethanoic acid	Ave	0.1132	0.1045		9.23	10.0	-7.7	30.0
13C6 PFDA	Ave	1.031	0.9901		9.60	10.0	-4.0	30.0
M2-8:2 FTS	Ave	0.0507	0.0520		9.82	9.58	2.5	30.0
13C8 FOSA	Ave	2.325	2.015		8.67	10.0	-13.3	30.0
d3-NMeFOSAA	Ave	0.4181	0.3522		8.42	10.0	-15.8	30.0
13C7 PFUnA	Ave	0.7482	0.7111		9.50	10.0	-5.0	30.0
d5-NEtFOSAA	Ave	0.3553	0.3502		9.86	10.0	-1.4	30.0
13C2-2H-Perfluoro-2-dodecenoic acid	Ave	0.9922	0.9862		9.94	10.0	-0.6	30.0
13C2-2-Perfluorodecylethanoic acid	Ave	0.0855	0.0849		9.93	10.0	-0.7	30.0
13C2-PFDoDA	Ave	0.4824	0.4419		9.16	10.0	-8.4	30.0
d7-N-MeFOSE-M	Ave	0.2666	0.2311		8.67	10.0	-13.3	30.0
d3-NMePFOSA	Ave	0.3156	0.2849		9.03	10.0	-9.7	30.0
d9-N-EtFOSE-M	Ave	0.2950	0.2673		9.06	10.0	-9.4	30.0
d5-NEtPFOSA	Ave	0.2850	0.2600		9.12	10.0	-8.8	30.0
13C2 PFTeDA	Ave	0.3901	0.3936		10.1	10.0	0.9	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: CCV 410-271895/1 Calibration Date: 07/02/2022 15:49
 Instrument ID: 30733 Calib Start Date: 07/01/2022 13:08
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/01/2022 14:15
 Lab File ID: 22JUL02-01.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
MTP	AveID	0.0671	0.0693		2.07	2.00	3.3	30.0
PPF Acid	AveID	0.4070	0.4544		2.23	2.00	11.7	30.0
PFMOAA	AveID	0.2004	0.2114		2.11	2.00	5.5	30.0
Perfluorobutanoic acid	AveID	0.9493	0.9834		2.07	2.00	3.6	30.0
R-EVE	AveID	0.1597	0.1523		1.91	2.00	-4.6	30.0
R-PSDA	AveID	0.0304	0.0274		1.81	2.00	-9.7	30.0
Hydrolyzed PSDA	AveID	0.2005	0.1919		1.91	2.00	-4.3	30.0
PMPA	AveID	0.4660	0.4465		1.92	2.00	-4.2	30.0
Perfluoropropanesulfonic acid	AveID	0.4460	0.4243		1.74	1.83	-4.9	30.0
NVHOS	AveID	0.2819	0.2940		2.09	2.00	4.3	30.0
PFECA F	AveID	1.034	1.054		2.04	2.00	1.9	30.0
PFO2HxA	AveID	0.3315	0.3191		1.93	2.00	-3.7	30.0
3:3 FTCA	AveID	0.0668	0.0776		2.32	2.00	16.2	30.0
Perfluoropentanoic acid	AveID	0.9776	1.039		2.12	2.00	6.2	30.0
Perfluorobutanesulfonic acid	AveID	1.043	1.074		1.82	1.77	3.0	30.0
PEPA	AveID	0.1977	0.1891		1.91	2.00	-4.3	30.0
PFECA A	AveID	0.5804	0.6605		2.28	2.00	13.8	30.0
Perfluoro (2-ethoxyethane) sulfonic acid	AveID	2.513	2.615		1.85	1.78	4.1	30.0
PFECA B	AveID	0.7432	0.8297		2.23	2.00	11.6	30.0
4:2 Fluorotelomer sulfonic acid	AveID	2.504	2.610		1.95	1.87	4.2	30.0
Perfluorohexanoic acid	AveID	0.8992	0.997		2.22	2.00	10.9	30.0
Perfluoropentanesulfonic acid	AveID	0.9815	1.014		1.94	1.88	3.3	30.0
PFO3OA	AveID	0.4036	0.3964		1.96	2.00	-1.8	30.0
HFPODA	AveID	0.8779	0.8389		1.91	2.00	-4.4	30.0
Hydro-EVE Acid	AveID	2.160	2.143		1.98	2.00	-0.8	30.0
R-PSDCA	AveID	2.090	2.241		2.15	2.00	7.3	30.0
Perfluoroheptanoic acid	AveID	1.079	1.049		1.94	2.00	-2.8	30.0
Perfluorohexanesulfonic acid	AveID	1.106	1.017		1.68	1.82	-8.1	30.0
Hydro-PS Acid	AveID	1.534	1.640		2.14	2.00	6.9	30.0
DONA	AveID	1.658	1.626		1.85	1.89	-1.9	30.0
PFECA G	AveID	2.271	2.474		2.18	2.00	8.9	30.0
5:3 FTCA	AveID	0.2177	0.2370		2.18	2.00	8.9	30.0
6:2 FTUCA	AveID	1.147	1.217		2.12	2.00	6.1	30.0
6:2 FTCA	AveID	1.072	1.144		2.14	2.00	6.8	30.0
PFO4DA	AveID	0.7025	0.7339		2.09	2.00	4.5	30.0
PS Acid	AveID	0.5388	0.5547		2.06	2.00	3.0	30.0
EVE Acid	AveID	1.783	1.795		2.01	2.00	0.7	30.0
Perfluoro-4-ethylcyclohexane sulfonic acid	AveID	1.089	1.025		1.74	1.84	-5.8	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: CCV 410-271895/1 Calibration Date: 07/02/2022 15:49
 Instrument ID: 30733 Calib Start Date: 07/01/2022 13:08
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/01/2022 14:15
 Lab File ID: 22JUL02-01.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
6:2 Fluorotelomer sulfonic acid	AveID	2.421	3.002		2.35	1.90	24.0	30.0
Perfluoroheptanesulfonic acid	AveID	1.020	0.9667		1.80	1.90	-5.2	30.0
Perfluorooctanoic acid	AveID	1.017	1.113		2.19	2.00	9.4	30.0
TAF	AveID	0.8021	0.7616		1.90	2.00	-5.0	30.0
Perfluorooctanesulfonic acid	AveID	1.100	1.219		2.05	1.85	10.9	30.0
Perfluorononanoic acid	AveID	0.998	1.116		2.24	2.00	11.8	30.0
7:3 FTCA	AveID	2.302	2.277		1.98	2.00	-1.1	30.0
8:2 FTUCA	AveID	1.052	1.102		2.09	2.00	4.7	30.0
8:2 FTCA	AveID	1.002	1.139		2.27	2.00	13.6	30.0
9Cl-PF3ONS	AveID	1.096	1.214		2.06	1.86	10.7	30.0
Perfluorononanesulfonic acid	AveID	1.148	1.155		1.93	1.92	0.6	30.0
8:2 Fluorotelomer sulfonic acid	AveID	3.416	3.534		1.98	1.92	3.5	30.0
Perfluorodecanoic acid	AveID	1.037	1.206		2.33	2.00	16.4	30.0
Perfluorooctanesulfonamide	AveID	1.041	1.183		2.27	2.00	13.6	30.0
NMeFOSAA	AveID	0.8496	1.030		2.42	2.00	21.2	30.0
Perfluorodecanesulfonic acid	AveID	1.063	1.157		2.10	1.93	8.9	30.0
Perfluoroundecanoic acid	AveID	0.9419	1.018		2.16	2.00	8.1	30.0
NETFOSAA	AveID	0.8366	0.8591		2.05	2.00	2.7	30.0
10:2 FTUCA	AveID	0.9204	1.005		2.18	2.00	9.2	30.0
10:2 FTCA	AveID	1.109	0.9468		1.71	2.00	-14.6	30.0
11Cl-PF3OUdS	AveID	0.8357	0.9069		2.02	1.86	8.5	30.0
Perfluorododecanoic acid	AveID	1.018	1.157		2.27	2.00	13.7	30.0
10:2 FTS	AveID	2.222	3.213		2.79	1.93	44.6*	30.0
NMeFOSE	AveID	1.113	1.121		2.01	2.00	0.7	30.0
NMeFOSA	AveID	1.004	0.9448		1.88	2.00	-5.9	30.0
Perfluorododecanesulfonic acid	AveID	0.9210	1.047		2.20	1.94	13.6	30.0
NETFOSE	AveID	1.090	1.075		1.97	2.00	-1.3	30.0
Perfluorotridecanoic acid	AveID	0.7488	0.7927		2.12	2.00	5.9	30.0
NETFOSA	AveID	1.230	1.204		1.96	2.00	-2.1	30.0
Perfluorotetradecanoic acid	AveID	0.9078	0.9664		2.13	2.00	6.4	30.0
Perfluorohexadecanoic acid	AveID	1.223	1.271		2.08	2.00	3.9	30.0
Perfluorooctadecanoic acid	AveID	0.4910	0.4806		1.96	2.00	-2.1	30.0
13C4 PFBA	Ave	1.123	1.141		10.2	10.0	1.6	30.0
13C5 PFPeA	Ave	1.001	0.9600		9.59	10.0	-4.1	30.0
13C3 PFBS	Ave	1.811	1.722		8.85	9.30	-4.9	30.0
M2-4:2 FTS	Ave	0.0838	0.0737		8.21	9.34	-12.1	30.0
13C5 PFHxA	Ave	1.163	1.185		10.2	10.0	1.9	30.0
13C3 HFPO-DA	Ave	0.3556	0.3514		9.88	10.0	-1.2	30.0
13C3 PFHxS	Ave	1.532	1.646		10.2	9.46	7.5	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: CCV 410-271895/1 Calibration Date: 07/02/2022 15:49
 Instrument ID: 30733 Calib Start Date: 07/01/2022 13:08
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/01/2022 14:15
 Lab File ID: 22JUL02-01.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFHpA	Ave	1.126	1.212		10.8	10.0	7.7	30.0
13C2-2H-Perfluoro-2-octenoic acid	Ave	1.174	1.179		10.0	10.0	0.4	30.0
13C2-2-Perfluorohexylethanoic acid	Ave	0.1232	0.1237		10.0	10.0	0.4	30.0
M2-6:2 FTS	Ave	0.0571	0.0453		7.53	9.50	-20.7	30.0
13C8 PFOA	Ave	1.005	1.002		9.97	10.0	-0.3	30.0
13C8 PFOS	Ave	1.020	1.029		9.65	9.56	0.9	30.0
13C9 PFNA	Ave	0.7025	0.7420		10.6	10.0	5.6	30.0
13C2-2H-Perfluoro-2-decenoic acid	Ave	1.096	1.031		9.41	10.0	-5.9	30.0
13C2-2-Perfluorooctylethanoic acid	Ave	0.1132	0.1010		8.92	10.0	-10.8	30.0
13C6 PFDA	Ave	1.031	0.9390		9.11	10.0	-8.9	30.0
M2-8:2 FTS	Ave	0.0507	0.0384		7.25	9.58	-24.3	30.0
13C8 FOSA	Ave	2.325	2.070		8.90	10.0	-11.0	30.0
d3-NMeFOSAA	Ave	0.4181	0.3609		8.63	10.0	-13.7	30.0
13C7 PFUnA	Ave	0.7482	0.7161		9.57	10.0	-4.3	30.0
d5-NEtFOSAA	Ave	0.3553	0.3325		9.36	10.0	-6.4	30.0
13C2-2H-Perfluoro-2-dodecenoic acid	Ave	0.9922	0.9750		9.83	10.0	-1.7	30.0
13C2-2-Perfluorodecylethanoic acid	Ave	0.0855	0.0888		10.4	10.0	3.8	30.0
13C2-PFDoDA	Ave	0.4824	0.4553		9.44	10.0	-5.6	30.0
d7-N-MeFOSE-M	Ave	0.2666	0.2709		10.2	10.0	1.6	30.0
d3-NMePFOSA	Ave	0.3156	0.3015		9.55	10.0	-4.5	30.0
d9-N-EtFOSE-M	Ave	0.2950	0.2894		9.81	10.0	-1.9	30.0
d5-NEtPFOSA	Ave	0.2850	0.2637		9.25	10.0	-7.5	30.0
13C2 PFTeDA	Ave	0.3901	0.3781		9.69	10.0	-3.1	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: CCV 410-271895/14 Calibration Date: 07/02/2022 18:15
 Instrument ID: 30733 Calib Start Date: 07/01/2022 13:08
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/01/2022 14:15
 Lab File ID: 22JUL02-14.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
MTP	AveID	0.0671	0.0653		7.78	8.00	-2.7	30.0
PPF Acid	AveID	0.4070	0.4012		7.89	8.00	-1.4	30.0
PFMOAA	AveID	0.2004	0.1951		7.79	8.00	-2.6	30.0
Perfluorobutanoic acid	AveID	0.9493	0.9459		7.97	8.00	-0.4	30.0
R-EVE	AveID	0.1597	0.1558		7.80	8.00	-2.5	30.0
R-PSDA	AveID	0.0304	0.0265		6.97	8.00	-12.8	30.0
Hydrolyzed PSDA	AveID	0.2005	0.1923		7.67	8.00	-4.1	30.0
PMPA	AveID	0.4660	0.4582		7.87	8.00	-1.7	30.0
Perfluoropropanesulfonic acid	AveID	0.4460	0.4573		7.51	7.33	2.5	30.0
NVHOS	AveID	0.2819	0.2578		7.32	8.00	-8.5	30.0
PFECA F	AveID	1.034	1.028		7.95	8.00	-0.6	30.0
PFO2HxA	AveID	0.3315	0.3389		8.18	8.00	2.2	30.0
3:3 FTCA	AveID	0.0668	0.0731		8.76	8.00	9.4	30.0
Perfluoropentanoic acid	AveID	0.9776	1.047		8.57	8.00	7.1	30.0
Perfluorobutanesulfonic acid	AveID	1.043	0.9197		6.25	7.08	-11.8	30.0
PEPA	AveID	0.1977	0.2022		8.18	8.00	2.3	30.0
PFECA A	AveID	0.5804	0.5428		7.48	8.00	-6.5	30.0
Perfluoro (2-ethoxyethane) sulfonic acid	AveID	2.513	2.404		6.81	7.12	-4.3	30.0
PFECA B	AveID	0.7432	0.7112		7.66	8.00	-4.3	30.0
4:2 Fluorotelomer sulfonic acid	AveID	2.504	2.394		7.15	7.47	-4.4	30.0
Perfluorohexanoic acid	AveID	0.8992	0.8607		7.66	8.00	-4.3	30.0
Perfluoropentanesulfonic acid	AveID	0.9815	0.9203		7.04	7.50	-6.2	30.0
PFO3OA	AveID	0.4036	0.4311		8.55	8.00	6.8	30.0
HFPODA	AveID	0.8779	0.7895		7.19	8.00	-10.1	30.0
Hydro-EVE Acid	AveID	2.160	2.022		7.49	8.00	-6.4	30.0
R-PSDCA	AveID	2.090	1.879		7.19	8.00	-10.1	30.0
Perfluoroheptanoic acid	AveID	1.079	1.051		7.79	8.00	-2.6	30.0
Perfluorohexanesulfonic acid	AveID	1.106	1.116		7.36	7.30	0.9	30.0
Hydro-PS Acid	AveID	1.534	1.434		7.48	8.00	-6.6	30.0
DONA	AveID	1.658	1.552		7.08	7.56	-6.4	30.0
PFECA G	AveID	2.271	2.613		9.20	8.00	15.1	30.0
5:3 FTCA	AveID	0.2177	0.2274		8.36	8.00	4.5	30.0
6:2 FTUCA	AveID	1.147	1.131		7.89	8.00	-1.4	30.0
6:2 FTCA	AveID	1.072	0.997		7.44	8.00	-7.0	30.0
PFO4DA	AveID	0.7025	0.7188		8.19	8.00	2.3	30.0
PS Acid	AveID	0.5388	0.5193		7.71	8.00	-3.6	30.0
EVE Acid	AveID	1.783	1.728		7.75	8.00	-3.1	30.0
Perfluoro-4-ethylcyclohexane sulfonic acid	AveID	1.089	1.032		6.99	7.38	-5.2	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: CCV 410-271895/14 Calibration Date: 07/02/2022 18:15
 Instrument ID: 30733 Calib Start Date: 07/01/2022 13:08
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/01/2022 14:15
 Lab File ID: 22JUL02-14.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
6:2 Fluorotelomer sulfonic acid	AveID	2.421	2.428		7.61	7.58	0.3	30.0
Perfluoroheptanesulfonic acid	AveID	1.020	1.069		7.98	7.62	4.8	30.0
Perfluorooctanoic acid	AveID	1.017	0.9171		7.21	8.00	-9.8	30.0
TAF	AveID	0.8021	0.7622		7.60	8.00	-5.0	30.0
Perfluorooctanesulfonic acid	AveID	1.100	1.062		7.15	7.40	-3.5	30.0
Perfluorononanoic acid	AveID	0.998	0.9309		7.46	8.00	-6.8	30.0
7:3 FTCA	AveID	2.302	2.170		7.54	8.00	-5.8	30.0
8:2 FTUCA	AveID	1.052	0.9824		7.47	8.00	-6.6	30.0
8:2 FTCA	AveID	1.002	0.9782		7.81	8.00	-2.4	30.0
9Cl-PF3ONS	AveID	1.096	1.088		7.38	7.44	-0.8	30.0
Perfluorononanesulfonic acid	AveID	1.148	1.114		7.45	7.68	-2.9	30.0
8:2 Fluorotelomer sulfonic acid	AveID	3.416	2.958		6.64	7.66	-13.4	30.0
Perfluorodecanoic acid	AveID	1.037	1.059		8.17	8.00	2.2	30.0
Perfluorooctanesulfonamide	AveID	1.041	1.082		8.31	8.00	3.9	30.0
NMeFOSAA	AveID	0.8496	0.8321		7.84	8.00	-2.1	30.0
Perfluorodecanesulfonic acid	AveID	1.063	1.042		7.56	7.71	-1.9	30.0
Perfluoroundecanoic acid	AveID	0.9419	0.9111		7.74	8.00	-3.3	30.0
NETFOSAA	AveID	0.8366	0.7243		6.93	8.00	-13.4	30.0
10:2 FTUCA	AveID	0.9204	0.8730		7.59	8.00	-5.1	30.0
10:2 FTCA	AveID	1.109	0.9560		6.90	8.00	-13.8	30.0
11Cl-PF3OUdS	AveID	0.8357	0.8543		7.61	7.44	2.2	30.0
Perfluorododecanoic acid	AveID	1.018	0.9713		7.63	8.00	-4.6	30.0
10:2 FTS	AveID	2.222	2.656		9.22	7.71	19.5	30.0
NMeFOSE	AveID	1.113	1.032		7.42	8.00	-7.3	30.0
NMeFOSA	AveID	1.004	0.9147		7.28	8.00	-8.9	30.0
Perfluorododecanesulfonic acid	AveID	0.9210	0.8182		6.88	7.74	-11.2	30.0
NETFOSE	AveID	1.090	1.051		7.72	8.00	-3.5	30.0
Perfluorotridecanoic acid	AveID	0.7488	0.7051		7.53	8.00	-5.8	30.0
NETFOSA	AveID	1.230	1.104		7.18	8.00	-10.2	30.0
Perfluorotetradecanoic acid	AveID	0.9078	0.8431		7.43	8.00	-7.1	30.0
Perfluorohexadecanoic acid	AveID	1.223	1.188		7.77	8.00	-2.9	30.0
Perfluorooctadecanoic acid	AveID	0.4910	0.4575		7.45	8.00	-6.8	30.0
13C4 PFBA	Ave	1.123	1.096		9.76	10.0	-2.4	30.0
13C5 PFPeA	Ave	1.001	0.9018		9.01	10.0	-9.9	30.0
13C3 PFBS	Ave	1.811	1.877		9.64	9.30	3.7	30.0
M2-4:2 FTS	Ave	0.0838	0.0885		9.85	9.34	5.5	30.0
13C5 PFHxA	Ave	1.163	1.066		9.17	10.0	-8.3	30.0
13C3 HFPO-DA	Ave	0.3556	0.3349		9.42	10.0	-5.8	30.0
13C3 PFHxS	Ave	1.532	1.334		8.24	9.46	-12.9	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: CCV 410-271895/14 Calibration Date: 07/02/2022 18:15
 Instrument ID: 30733 Calib Start Date: 07/01/2022 13:08
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/01/2022 14:15
 Lab File ID: 22JUL02-14.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFHpA	Ave	1.126	1.051		9.33	10.0	-6.7	30.0
13C2-2H-Perfluoro-2-octenoic acid	Ave	1.174	1.131		9.63	10.0	-3.7	30.0
13C2-2-Perfluorohexylethanoic acid	Ave	0.1232	0.1201		9.75	10.0	-2.5	30.0
M2-6:2 FTS	Ave	0.0571	0.0509		8.47	9.50	-10.9	30.0
13C8 PFOA	Ave	1.005	1.034		10.3	10.0	2.9	30.0
13C8 PFOS	Ave	1.020	1.026		9.62	9.56	0.7	30.0
13C9 PFNA	Ave	0.7025	0.7523		10.7	10.0	7.1	30.0
13C2-2H-Perfluoro-2-decenoic acid	Ave	1.096	1.012		9.24	10.0	-7.6	30.0
13C2-2-Perfluorooctylethanoic acid	Ave	0.1132	0.1012		8.93	10.0	-10.7	30.0
13C6 PFDA	Ave	1.031	0.9522		9.24	10.0	-7.6	30.0
M2-8:2 FTS	Ave	0.0507	0.0419		7.91	9.58	-17.4	30.0
13C8 FOSA	Ave	2.325	2.173		9.35	10.0	-6.5	30.0
d3-NMeFOSAA	Ave	0.4181	0.3847		9.20	10.0	-8.0	30.0
13C7 PFUnA	Ave	0.7482	0.7171		9.59	10.0	-4.1	30.0
d5-NEtFOSAA	Ave	0.3553	0.3444		9.69	10.0	-3.1	30.0
13C2-2H-Perfluoro-2-dodecenoic acid	Ave	0.9922	1.005		10.1	10.0	1.3	30.0
13C2-2-Perfluorodecylethanoic acid	Ave	0.0855	0.0815		9.52	10.0	-4.8	30.0
13C2-PFDoDA	Ave	0.4824	0.4819		9.99	10.0	-0.1	30.0
d7-N-MeFOSE-M	Ave	0.2666	0.2738		10.3	10.0	2.7	30.0
d3-NMePFOSA	Ave	0.3156	0.3170		10.0	10.0	0.4	30.0
d9-N-EtFOSE-M	Ave	0.2950	0.2913		9.88	10.0	-1.2	30.0
d5-NEtPFOSA	Ave	0.2850	0.2777		9.75	10.0	-2.5	30.0
13C2 PFTeDA	Ave	0.3901	0.4274		11.0	10.0	9.6	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1

SDG No.: _____

Lab Sample ID: ICV 410-272051/9 Calibration Date: 07/04/2022 17:44

Instrument ID: 30733 Calib Start Date: 07/04/2022 16:15

GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/04/2022 17:22

Lab File ID: 22JUL04XMCAL-09.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
MTP	AveID	0.0692	0.0608		1.76	2.00	-12.2	30.0
PPF Acid	AveID	0.4383	0.3852		1.76	2.00	-12.1	30.0
PFMOAA	AveID	0.2082	0.1805		1.73	2.00	-13.3	30.0
Perfluorobutanoic acid	AveID	0.9481	0.9126		1.93	2.00	-3.7	30.0
R-EVE	AveID	0.1603	0.1478		1.84	2.00	-7.8	30.0
R-PSDA	AveID	0.0269	0.0252		1.87	2.00	-6.5	30.0
Hydrolyzed PSDA	AveID	0.1690	0.1562		1.85	2.00	-7.6	30.0
PMPA	AveID	0.4680	0.4125		1.76	2.00	-11.9	30.0
Perfluoropropanesulfonic acid	AveID	0.4520	0.4433		1.80	1.83	-1.9	30.0
NVHOS	AveID	0.2690	0.2656		1.98	2.00	-1.2	30.0
PFECA F	AveID	1.032	0.9866		1.91	2.00	-4.4	30.0
PFO2HxA	AveID	0.3213	0.2772		1.73	2.00	-13.7	30.0
3:3 FTCA	AveID	0.0714	0.0747		2.09	2.00	4.7	30.0
Perfluoropentanoic acid	AveID	1.067	1.000		1.87	2.00	-6.3	30.0
Perfluorobutanesulfonic acid	AveID	1.033	1.061		1.82	1.77	2.7	30.0
PEPA	AveID	0.2057	0.1912		1.86	2.00	-7.1	30.0
PFECA A	AveID	0.5653	0.5595		1.98	2.00	-1.0	30.0
Perfluoro (2-ethoxyethane) sulfonic acid	AveID	2.441	2.753		2.01	1.78	12.8	30.0
PFECA B	AveID	0.7147	0.7044		1.97	2.00	-1.4	30.0
4:2 Fluorotelomer sulfonic acid	AveID	2.496	2.668		2.00	1.87	6.9	30.0
Perfluorohexanoic acid	AveID	0.8889	0.7877		1.77	2.00	-11.4	30.0
Perfluoropentanesulfonic acid	AveID	0.9353	1.006		2.02	1.88	7.5	30.0
PFO3OA	AveID	0.4214	0.3556		1.69	2.00	-15.6	30.0
HFPODA	AveID	0.8142	0.8599		2.11	2.00	5.6	30.0
Hydro-EVE Acid	AveID	2.145	2.138		1.99	2.00	-0.3	30.0
R-PSDCA	AveID	2.057	2.071		2.01	2.00	0.7	30.0
Perfluoroheptanoic acid	AveID	1.059	1.056		1.99	2.00	-0.3	30.0
Perfluorohexanesulfonic acid	AveID	1.099	1.119		1.86	1.82	1.8	30.0
Hydro-PS Acid	AveID	1.505	1.504		2.00	2.00	-0.0	30.0
DONA	AveID	1.640	1.647		1.90	1.89	0.4	30.0
PFECA G	AveID	2.440	2.451		2.01	2.00	0.5	30.0
5:3 FTCA	AveID	0.2130	0.2142		2.01	2.00	0.5	30.0
6:2 FTUCA	AveID	1.152	1.234		2.14	2.00	7.2	30.0
6:2 FTCA	AveID	1.055	0.8674		1.64	2.00	-17.8	30.0
PFO4DA	AveID	0.7258	0.6589		1.82	2.00	-9.2	30.0
PS Acid	AveID	0.5318	0.5284		1.99	2.00	-0.7	30.0
EVE Acid	AveID	1.822	1.772		1.94	2.00	-2.8	30.0
Perfluoro-4-ethylcyclohexane sulfonic acid	AveID	1.093	1.019		1.72	1.84	-6.8	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1

SDG No.: _____

Lab Sample ID: ICV 410-272051/9 Calibration Date: 07/04/2022 17:44

Instrument ID: 30733 Calib Start Date: 07/04/2022 16:15

GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/04/2022 17:22

Lab File ID: 22JUL04XMCAL-09.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
6:2 Fluorotelomer sulfonic acid	AveID	2.458	2.493		1.92	1.90	1.4	30.0
Perfluoroheptanesulfonic acid	AveID	1.011	1.085		2.04	1.90	7.3	30.0
Perfluorooctanoic acid	AveID	1.054	0.995		1.89	2.00	-5.6	30.0
TAF	AveID	0.7933	0.7900		1.99	2.00	-0.4	30.0
Perfluorooctanesulfonic acid	AveID	1.090	1.230		2.09	1.85	12.9	30.0
Perfluorononanoic acid	AveID	1.007	1.186		2.36	2.00	17.8	30.0
7:3 FTCA	AveID	2.147	2.435		2.27	2.00	13.4	30.0
8:2 FTUCA	AveID	1.087	1.266		2.33	2.00	16.5	30.0
8:2 FTCA	AveID	1.055	1.104		2.09	2.00	4.6	30.0
9Cl-PF3ONS	AveID	1.093	1.101		1.87	1.86	0.7	30.0
Perfluorononanesulfonic acid	AveID	1.106	1.170		2.03	1.92	5.8	30.0
8:2 Fluorotelomer sulfonic acid	AveID	3.111	2.813		1.73	1.92	-9.6	30.0
Perfluorodecanoic acid	AveID	1.038	1.081		2.08	2.00	4.2	30.0
Perfluorooctanesulfonamide	AveID	1.065	1.174		2.20	2.00	10.2	30.0
NMeFOSAA	AveID	0.9104	0.9510		2.09	2.00	4.5	30.0
Perfluorodecanesulfonic acid	AveID	1.080	1.155		2.06	1.93	7.0	30.0
Perfluoroundecanoic acid	AveID	0.9590	1.068		2.23	2.00	11.3	30.0
NETFOSAA	AveID	0.7819	0.8248		2.11	2.00	5.5	30.0
10:2 FTUCA	AveID	0.8970	0.9315		2.08	2.00	3.8	30.0
10:2 FTCA	AveID	1.040	0.9583		1.84	2.00	-7.8	30.0
11Cl-PF3OUdS	AveID	0.8677	0.9082		1.95	1.86	4.7	30.0
Perfluorododecanoic acid	AveID	1.047	1.093		2.09	2.00	4.4	30.0
10:2 FTS	AveID	2.532	2.490		1.90	1.93	-1.7	30.0
NMeFOSE	AveID	1.067	1.224		2.30	2.00	14.8	30.0
NMeFOSA	AveID	1.034	1.087		2.10	2.00	5.2	30.0
Perfluorododecanesulfonic acid	AveID	0.9431	1.002		2.06	1.94	6.3	30.0
NETFOSE	AveID	1.094	1.098		2.01	2.00	0.4	30.0
Perfluorotridecanoic acid	AveID	0.7409	0.8133		2.20	2.00	9.8	30.0
NETFOSA	AveID	1.223	1.197		1.96	2.00	-2.1	30.0
Perfluorotetradecanoic acid	AveID	0.8878	0.9453		2.13	2.00	6.5	30.0
Perfluorohexadecanoic acid	AveID	1.238	1.286		2.08	2.00	3.8	30.0
Perfluorooctadecanoic acid	AveID	0.4801	0.5301		2.21	2.00	10.4	30.0
13C4 PFBA	Ave	1.118	1.137		10.2	10.0	1.7	30.0
13C5 PFPeA	Ave	0.9786	0.9912		10.1	10.0	1.3	30.0
13C3 PFBS	Ave	1.942	1.905		9.13	9.30	-1.9	30.0
M2-4:2 FTS	Ave	0.0758	0.0708		8.72	9.34	-6.6	30.0
13C5 PFHxA	Ave	1.204	1.222		10.2	10.0	1.5	30.0
13C3 HFPO-DA	Ave	0.3593	0.3157		8.79	10.0	-12.1	30.0
13C4 PFHpA	Ave	1.144	1.223		10.7	10.0	6.9	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: ICV 410-272051/9 Calibration Date: 07/04/2022 17:44
 Instrument ID: 30733 Calib Start Date: 07/04/2022 16:15
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/04/2022 17:22
 Lab File ID: 22JUL04XMCAL-09.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C3 PFHxS	Ave	1.555	1.548		9.42	9.46	-0.4	30.0
13C2-2H-Perfluoro-2-octenoic acid	Ave	1.188	1.069		9.00	10.0	-10.0	30.0
13C2-2-Perfluorohexylethanoic acid	Ave	0.1246	0.1274		10.2	10.0	2.2	30.0
M2-6:2 FTS	Ave	0.0487	0.0485		9.47	9.50	-0.3	30.0
13C8 PFOA	Ave	1.004	1.005		10.0	10.0	0.2	30.0
13C8 PFOS	Ave	1.018	0.9825		9.23	9.56	-3.5	30.0
13C9 PFNA	Ave	0.6823	0.6822		10.0	10.0	-0.0	30.0
13C2-2H-Perfluoro-2-decenoic acid	Ave	1.028	0.9799		9.53	10.0	-4.7	30.0
13C2-2-Perfluorooctylethanoic acid	Ave	0.0948	0.0995		10.5	10.0	4.9	30.0
13C6 PFDA	Ave	0.9799	1.063		10.8	10.0	8.5	30.0
M2-8:2 FTS	Ave	0.0384	0.0415		10.4	9.58	8.1	30.0
13C8 FOSA	Ave	2.201	2.250		10.2	10.0	2.2	30.0
d3-NMeFOSAA	Ave	0.3793	0.3696		9.74	10.0	-2.6	30.0
13C7 PFUnA	Ave	0.7151	0.7203		10.1	10.0	0.7	30.0
d5-NEtFOSAA	Ave	0.3211	0.3569		11.1	10.0	11.1	30.0
13C2-2H-Perfluoro-2-dodecenoic acid	Ave	0.9515	1.015		10.7	10.0	6.6	30.0
13C2-2-Perfluorodecylethanoic acid	Ave	0.0813	0.0906		11.1	10.0	11.5	30.0
13C2-PFDoDA	Ave	0.4595	0.4894		10.7	10.0	6.5	30.0
d7-N-MeFOSE-M	Ave	0.2750	0.2674		9.72	10.0	-2.8	30.0
d3-NMePFOSA	Ave	0.3181	0.3130		9.84	10.0	-1.6	30.0
d9-N-EtFOSE-M	Ave	0.2936	0.2898		9.87	10.0	-1.3	30.0
d5-NEtPFOSA	Ave	0.2822	0.2976		10.5	10.0	5.5	30.0
13C2 PFTeDA	Ave	0.4013	0.4205		10.5	10.0	4.8	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: CCV 410-272691/4 Calibration Date: 07/06/2022 11:56
 Instrument ID: 30733 Calib Start Date: 07/04/2022 16:15
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/04/2022 17:22
 Lab File ID: 22JUL06-04.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
MTP	AveID	0.0692	0.0672		1.94	2.00	-2.8	30.0
PPF Acid	AveID	0.4383	0.4577		2.09	2.00	4.4	30.0
PFMOAA	AveID	0.2082	0.2115		2.03	2.00	1.6	30.0
Perfluorobutanoic acid	AveID	0.9481	1.019		2.15	2.00	7.4	30.0
R-EVE	AveID	0.1603	0.1631		2.04	2.00	1.8	30.0
R-PSDA	AveID	0.0269	0.0302		2.24	2.00	11.9	30.0
Hydrolyzed PSDA	AveID	0.1690	0.1814		2.15	2.00	7.3	30.0
PMPA	AveID	0.4680	0.5010		2.14	2.00	7.0	30.0
Perfluoropropanesulfonic acid	AveID	0.4520	0.4718		1.91	1.83	4.4	30.0
NVHOS	AveID	0.2690	0.2873		2.14	2.00	6.8	30.0
PFECA F	AveID	1.032	1.128		2.18	2.00	9.2	30.0
PFO2HxA	AveID	0.3213	0.3304		2.06	2.00	2.9	30.0
3:3 FTCA	AveID	0.0714	0.0793		2.22	2.00	11.1	30.0
Perfluoropentanoic acid	AveID	1.067	1.022		1.92	2.00	-4.2	30.0
Perfluorobutanesulfonic acid	AveID	1.033	1.128		1.93	1.77	9.2	30.0
PEPA	AveID	0.2057	0.2183		2.12	2.00	6.1	30.0
PFECA A	AveID	0.5653	0.5755		2.04	2.00	1.8	30.0
Perfluoro (2-ethoxyethane) sulfonic acid	AveID	2.441	2.814		2.05	1.78	15.3	30.0
PFECA B	AveID	0.7147	0.8115		2.27	2.00	13.5	30.0
4:2 Fluorotelomer sulfonic acid	AveID	2.496	2.753		2.06	1.87	10.3	30.0
Perfluorohexanoic acid	AveID	0.8889	0.9509		2.14	2.00	7.0	30.0
Perfluoropentanesulfonic acid	AveID	0.9353	1.092		2.19	1.88	16.7	30.0
PFO3OA	AveID	0.4214	0.5049		2.40	2.00	19.8	30.0
HFPODA	AveID	0.8142	0.8943		2.20	2.00	9.8	30.0
Hydro-PS Acid	AveID	1.505	1.503		2.00	2.00	-0.1	30.0
Hydro-EVE Acid	AveID	2.145	2.136		1.99	2.00	-0.4	30.0
R-PSDCA	AveID	2.057	2.263		2.20	2.00	10.1	30.0
Perfluoroheptanoic acid	AveID	1.059	0.9930		1.88	2.00	-6.2	30.0
Perfluorohexanesulfonic acid	AveID	1.099	1.160		1.92	1.82	5.5	30.0
DONA	AveID	1.640	1.560		1.80	1.89	-4.9	30.0
PFECA G	AveID	2.440	2.799		2.29	2.00	14.7	30.0
5:3 FTCA	AveID	0.2130	0.1976		1.86	2.00	-7.2	30.0
6:2 FTUCA	AveID	1.152	1.190		2.07	2.00	3.3	30.0
6:2 FTCA	AveID	1.055	1.145		2.17	2.00	8.5	30.0
PFO4DA	AveID	0.7258	0.7962		2.19	2.00	9.7	30.0
PS Acid	AveID	0.5318	0.6405		2.41	2.00	20.4	30.0
EVE Acid	AveID	1.822	1.936		2.12	2.00	6.2	30.0
Perfluoro-4-ethylcyclohexane sulfonic acid	AveID	1.093	1.077		1.82	1.84	-1.5	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: CCV 410-272691/4 Calibration Date: 07/06/2022 11:56
 Instrument ID: 30733 Calib Start Date: 07/04/2022 16:15
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/04/2022 17:22
 Lab File ID: 22JUL06-04.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
6:2 Fluorotelomer sulfonic acid	AveID	2.458	2.584		1.99	1.90	5.1	30.0
Perfluoroheptanesulfonic acid	AveID	1.011	1.009		1.90	1.90	-0.1	30.0
Perfluorooctanoic acid	AveID	1.054	0.9940		1.89	2.00	-5.7	30.0
TAF	AveID	0.7933	0.7779		1.96	2.00	-1.9	30.0
Perfluorooctanesulfonic acid	AveID	1.090	1.097		1.86	1.85	0.7	30.0
Perfluorononanoic acid	AveID	1.007	1.149		2.28	2.00	14.1	30.0
7:3 FTCA	AveID	2.147	2.762		2.57	2.00	28.7	30.0
8:2 FTUCA	AveID	1.087	1.098		2.02	2.00	1.1	30.0
8:2 FTCA	AveID	1.055	1.209		2.29	2.00	14.6	30.0
9Cl-PF3ONS	AveID	1.093	1.099		1.87	1.86	0.6	30.0
Perfluorononanesulfonic acid	AveID	1.106	1.077		1.87	1.92	-2.6	30.0
8:2 Fluorotelomer sulfonic acid	AveID	3.111	3.262		2.01	1.92	4.8	30.0
Perfluorodecanoic acid	AveID	1.038	1.024		1.97	2.00	-1.3	30.0
Perfluorooctanesulfonamide	AveID	1.065	1.178		2.21	2.00	10.5	30.0
NMeFOSAA	AveID	0.9104	0.9065		1.99	2.00	-0.4	30.0
Perfluorodecanesulfonic acid	AveID	1.080	1.073		1.92	1.93	-0.6	30.0
Perfluoroundecanoic acid	AveID	0.9590	1.042		2.17	2.00	8.6	30.0
NETFOSAA	AveID	0.7819	0.9098		2.33	2.00	16.4	30.0
10:2 FTUCA	AveID	0.8970	0.9810		2.19	2.00	9.4	30.0
11Cl-PF3OUdS	AveID	0.8677	0.8681		1.86	1.86	0.0	30.0
10:2 FTCA	AveID	1.040	0.998		1.92	2.00	-4.0	30.0
Perfluorododecanoic acid	AveID	1.047	1.027		1.96	2.00	-1.9	30.0
10:2 FTS	AveID	2.532	2.428		1.85	1.93	-4.1	30.0
NMeFOSE	AveID	1.067	1.109		2.08	2.00	4.0	30.0
NMeFOSA	AveID	1.034	1.026		1.99	2.00	-0.7	30.0
Perfluorododecanesulfonic acid	AveID	0.9431	1.019		2.09	1.94	8.0	30.0
NETFOSE	AveID	1.094	1.145		2.09	2.00	4.6	30.0
Perfluorotridecanoic acid	AveID	0.7409	0.8359		2.26	2.00	12.8	30.0
NETFOSA	AveID	1.223	1.260		2.06	2.00	3.1	30.0
Perfluorotetradecanoic acid	AveID	0.8878	0.9373		2.11	2.00	5.6	30.0
Perfluorohexadecanoic acid	AveID	1.238	1.487		2.40	2.00	20.1	30.0
Perfluorooctadecanoic acid	AveID	0.4801	0.5506		2.29	2.00	14.7	30.0
13C4 PFBA	Ave	1.118	1.076		9.62	10.0	-3.8	30.0
13C5 PFPeA	Ave	0.9786	0.9909		10.1	10.0	1.3	30.0
13C3 PFBS	Ave	1.942	1.721		8.24	9.30	-11.4	30.0
M2-4:2 FTS	Ave	0.0758	0.0989		12.2	9.34	30.5*	30.0
13C5 PFHxA	Ave	1.204	1.156		9.60	10.0	-4.0	30.0
13C3 HFPO-DA	Ave	0.3593	0.3758		10.5	10.0	4.6	30.0
13C3 PFHxS	Ave	1.555	1.591		9.68	9.46	2.3	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1

SDG No.: _____

Lab Sample ID: CCV 410-272691/4 Calibration Date: 07/06/2022 11:56

Instrument ID: 30733 Calib Start Date: 07/04/2022 16:15

GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/04/2022 17:22

Lab File ID: 22JUL06-04.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFHpA	Ave	1.144	1.278		11.2	10.0	11.8	30.0
13C2-2H-Perfluoro-2-octenoic acid	Ave	1.188	1.297		10.9	10.0	9.1	30.0
13C2-2-Perfluorohexylethanoic acid	Ave	0.1246	0.1353		10.9	10.0	8.6	30.0
M2-6:2 FTS	Ave	0.0487	0.0579		11.3	9.50	18.8	30.0
13C8 PFOA	Ave	1.004	1.101		11.0	10.0	9.7	30.0
13C8 PFOS	Ave	1.018	1.064		9.99	9.56	4.5	30.0
13C9 PFNA	Ave	0.6823	0.7094		10.4	10.0	4.0	30.0
13C2-2H-Perfluoro-2-decenoic acid	Ave	1.028	1.055		10.3	10.0	2.6	30.0
13C2-2-Perfluorooctylethanoic acid	Ave	0.0948	0.0939		9.91	10.0	-0.9	30.0
13C6 PFDA	Ave	0.9799	1.019		10.4	10.0	4.0	30.0
M2-8:2 FTS	Ave	0.0384	0.0449		11.2	9.58	16.8	30.0
13C8 FOSA	Ave	2.201	2.155		9.79	10.0	-2.1	30.0
d3-NMeFOSAA	Ave	0.3793	0.3873		10.2	10.0	2.1	30.0
13C7 PFUnA	Ave	0.7151	0.7363		10.3	10.0	3.0	30.0
d5-NEtFOSAA	Ave	0.3211	0.3506		10.9	10.0	9.2	30.0
13C2-2H-Perfluoro-2-dodecenoic acid	Ave	0.9515	1.052		11.1	10.0	10.5	30.0
13C2-2-Perfluorodecylethanoic acid	Ave	0.0813	0.0789		9.71	10.0	-2.9	30.0
13C2-PFDoDA	Ave	0.4595	0.4459		9.70	10.0	-3.0	30.0
d7-N-MeFOSE-M	Ave	0.2750	0.2651		9.64	10.0	-3.6	30.0
d3-NMePFOSA	Ave	0.3181	0.3015		9.48	10.0	-5.2	30.0
d9-N-EtFOSE-M	Ave	0.2936	0.2755		9.38	10.0	-6.2	30.0
d5-NEtPFOSA	Ave	0.2822	0.2663		9.44	10.0	-5.6	30.0
13C2 PFTeDA	Ave	0.4013	0.3822		9.52	10.0	-4.8	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: CCV 410-272691/11 Calibration Date: 07/06/2022 13:15
 Instrument ID: 30733 Calib Start Date: 07/04/2022 16:15
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/04/2022 17:22
 Lab File ID: 22JUL06-11.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
MTP	AveID	0.0692	0.0709		8.20	8.00	2.5	30.0
PPF Acid	AveID	0.4383	0.4671		8.53	8.00	6.6	30.0
PFMOAA	AveID	0.2082	0.2237		8.60	8.00	7.4	30.0
Perfluorobutanoic acid	AveID	0.9481	0.9589		8.09	8.00	1.1	30.0
R-EVE	AveID	0.1603	0.1601		7.99	8.00	-0.1	30.0
R-PSDA	AveID	0.0269	0.0277		8.23	8.00	2.9	30.0
Hydrolyzed PSDA	AveID	0.1690	0.1843		8.73	8.00	9.1	30.0
PMPA	AveID	0.4680	0.4936		8.44	8.00	5.5	30.0
Perfluoropropanesulfonic acid	AveID	0.4520	0.4639		7.52	7.33	2.6	30.0
NVHOS	AveID	0.2690	0.2744		8.16	8.00	2.0	30.0
PFECA F	AveID	1.032	1.065		8.25	8.00	3.2	30.0
PFO2HxA	AveID	0.3213	0.3229		8.04	8.00	0.5	30.0
3:3 FTCA	AveID	0.0714	0.0700		7.85	8.00	-1.9	30.0
Perfluoropentanoic acid	AveID	1.067	0.9761		7.32	8.00	-8.5	30.0
Perfluorobutanesulfonic acid	AveID	1.033	1.061		7.27	7.08	2.7	30.0
PEPA	AveID	0.2057	0.2237		8.70	8.00	8.7	30.0
PFECA A	AveID	0.5653	0.6093		8.62	8.00	7.8	30.0
Perfluoro (2-ethoxyethane) sulfonic acid	AveID	2.441	2.633		7.68	7.12	7.9	30.0
PFECA B	AveID	0.7147	0.7682		8.60	8.00	7.5	30.0
4:2 Fluorotelomer sulfonic acid	AveID	2.496	2.615		7.83	7.47	4.8	30.0
Perfluorohexanoic acid	AveID	0.8889	0.8823		7.94	8.00	-0.7	30.0
Perfluoropentanesulfonic acid	AveID	0.9353	0.9706		7.79	7.50	3.8	30.0
PFO3OA	AveID	0.4214	0.4269		8.11	8.00	1.3	30.0
HFPODA	AveID	0.8142	0.8755		8.60	8.00	7.5	30.0
Hydro-PS Acid	AveID	1.505	1.569		8.34	8.00	4.3	30.0
Hydro-EVE Acid	AveID	2.145	2.199		8.20	8.00	2.5	30.0
R-PSDCA	AveID	2.057	2.241		8.72	8.00	9.0	30.0
Perfluoroheptanoic acid	AveID	1.059	1.072		8.10	8.00	1.3	30.0
Perfluorohexanesulfonic acid	AveID	1.099	1.079		7.16	7.30	-1.8	30.0
DONA	AveID	1.640	1.680		7.75	7.56	2.5	30.0
PFECA G	AveID	2.440	2.484		8.14	8.00	1.8	30.0
5:3 FTCA	AveID	0.2130	0.2038		7.65	8.00	-4.3	30.0
6:2 FTUCA	AveID	1.152	1.144		7.94	8.00	-0.7	30.0
6:2 FTCA	AveID	1.055	1.009		7.65	8.00	-4.4	30.0
PFO4DA	AveID	0.7258	0.7331		8.08	8.00	1.0	30.0
PS Acid	AveID	0.5318	0.5545		8.34	8.00	4.3	30.0
EVE Acid	AveID	1.822	1.922		8.44	8.00	5.5	30.0
Perfluoro-4-ethylcyclohexane sulfonic acid	AveID	1.093	0.9499		6.41	7.38	-13.1	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1

SDG No.: _____

Lab Sample ID: CCV 410-272691/11 Calibration Date: 07/06/2022 13:15

Instrument ID: 30733 Calib Start Date: 07/04/2022 16:15

GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/04/2022 17:22

Lab File ID: 22JUL06-11.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
6:2 Fluorotelomer sulfonic acid	AveID	2.458	2.321		7.16	7.58	-5.6	30.0
Perfluoroheptanesulfonic acid	AveID	1.011	0.9384		7.07	7.62	-7.2	30.0
Perfluorooctanoic acid	AveID	1.054	0.9687		7.35	8.00	-8.1	30.0
TAF	AveID	0.7933	0.7806		7.87	8.00	-1.6	30.0
Perfluorooctanesulfonic acid	AveID	1.090	1.025		6.96	7.40	-5.9	30.0
Perfluorononanoic acid	AveID	1.007	0.9255		7.36	8.00	-8.1	30.0
7:3 FTCA	AveID	2.147	2.356		8.78	8.00	9.8	30.0
8:2 FTUCA	AveID	1.087	1.102		8.11	8.00	1.4	30.0
8:2 FTCA	AveID	1.055	1.025		7.77	8.00	-2.9	30.0
9Cl-PF3ONS	AveID	1.093	1.034		7.04	7.44	-5.3	30.0
Perfluorononanesulfonic acid	AveID	1.106	1.070		7.43	7.68	-3.3	30.0
8:2 Fluorotelomer sulfonic acid	AveID	3.111	2.825		6.96	7.66	-9.2	30.0
Perfluorodecanoic acid	AveID	1.038	1.019		7.86	8.00	-1.8	30.0
Perfluorooctanesulfonamide	AveID	1.065	1.019		7.65	8.00	-4.4	30.0
NMeFOSAA	AveID	0.9104	0.8600		7.56	8.00	-5.5	30.0
Perfluorodecanesulfonic acid	AveID	1.080	1.055		7.54	7.71	-2.3	30.0
Perfluoroundecanoic acid	AveID	0.9590	0.9426		7.86	8.00	-1.7	30.0
NETFOSAA	AveID	0.7819	0.6979		7.14	8.00	-10.7	30.0
10:2 FTUCA	AveID	0.8970	0.7520		6.71	8.00	-16.2	30.0
10:2 FTCA	AveID	1.040	0.9405		7.24	8.00	-9.5	30.0
11Cl-PF3OUdS	AveID	0.8677	0.7615		6.53	7.44	-12.2	30.0
Perfluorododecanoic acid	AveID	1.047	1.022		7.81	8.00	-2.4	30.0
10:2 FTS	AveID	2.532	2.129		6.49	7.71	-15.9	30.0
NMeFOSE	AveID	1.067	1.131		8.48	8.00	6.1	30.0
NMeFOSA	AveID	1.034	0.9435		7.30	8.00	-8.7	30.0
Perfluorododecanesulfonic acid	AveID	0.9431	0.9104		7.47	7.74	-3.5	30.0
NETFOSE	AveID	1.094	1.087		7.95	8.00	-0.6	30.0
Perfluorotridecanoic acid	AveID	0.7409	0.7831		8.46	8.00	5.7	30.0
NETFOSA	AveID	1.223	1.109		7.26	8.00	-9.3	30.0
Perfluorotetradecanoic acid	AveID	0.8878	0.8412		7.58	8.00	-5.2	30.0
Perfluorohexadecanoic acid	AveID	1.238	1.248		8.06	8.00	0.8	30.0
Perfluorooctadecanoic acid	AveID	0.4801	0.4782		7.97	8.00	-0.4	30.0
13C4 PFBA	Ave	1.118	1.104		9.87	10.0	-1.3	30.0
13C5 PFPeA	Ave	0.9786	1.005		10.3	10.0	2.7	30.0
13C3 PFBS	Ave	1.942	1.812		8.68	9.30	-6.7	30.0
M2-4:2 FTS	Ave	0.0758	0.1013		12.5	9.34	33.6*	30.0
13C5 PFHxA	Ave	1.204	1.082		8.99	10.0	-10.1	30.0
13C3 HFPO-DA	Ave	0.3593	0.3442		9.58	10.0	-4.2	30.0
13C3 PFHxS	Ave	1.555	1.522		9.26	9.46	-2.1	30.0

FORM VII
PFAS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1
 SDG No.: _____
 Lab Sample ID: CCV 410-272691/11 Calibration Date: 07/06/2022 13:15
 Instrument ID: 30733 Calib Start Date: 07/04/2022 16:15
 GC Column: Gemini C18 50mm ID: 3.00 (mm) Calib End Date: 07/04/2022 17:22
 Lab File ID: 22JUL06-11.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFHpA	Ave	1.144	1.098		9.60	10.0	-4.0	30.0
13C2-2H-Perfluoro-2-octenoic acid	Ave	1.188	1.222		10.3	10.0	2.8	30.0
13C2-2-Perfluorohexylethanoic acid	Ave	0.1246	0.1197		9.61	10.0	-3.9	30.0
M2-6:2 FTS	Ave	0.0487	0.0608		11.9	9.50	24.9	30.0
13C8 PFOA	Ave	1.004	0.9632		9.60	10.0	-4.0	30.0
13C8 PFOS	Ave	1.018	0.9774		9.18	9.56	-4.0	30.0
13C9 PFNA	Ave	0.6823	0.6980		10.2	10.0	2.3	30.0
13C2-2H-Perfluoro-2-decenoic acid	Ave	1.028	0.9606		9.35	10.0	-6.5	30.0
13C2-2-Perfluorooctylethanoic acid	Ave	0.0948	0.0848		8.94	10.0	-10.6	30.0
13C6 PFDA	Ave	0.9799	0.9442		9.64	10.0	-3.6	30.0
M2-8:2 FTS	Ave	0.0384	0.0453		11.3	9.58	17.9	30.0
13C8 FOSA	Ave	2.201	2.229		10.1	10.0	1.3	30.0
d3-NMeFOSAA	Ave	0.3793	0.3681		9.70	10.0	-3.0	30.0
13C7 PFUnA	Ave	0.7151	0.6955		9.73	10.0	-2.7	30.0
d5-NEtFOSAA	Ave	0.3211	0.3611		11.2	10.0	12.5	30.0
13C2-2H-Perfluoro-2-dodecenoic acid	Ave	0.9515	1.079		11.3	10.0	13.4	30.0
13C2-2-Perfluorodecylethanoic acid	Ave	0.0813	0.0758		9.33	10.0	-6.7	30.0
13C2-PFDoDA	Ave	0.4595	0.4269		9.29	10.0	-7.1	30.0
d7-N-MeFOSE-M	Ave	0.2750	0.2378		8.65	10.0	-13.5	30.0
d3-NMePFOSA	Ave	0.3181	0.3060		9.62	10.0	-3.8	30.0
d9-N-EtFOSE-M	Ave	0.2936	0.2761		9.40	10.0	-6.0	30.0
d5-NEtPFOSA	Ave	0.2822	0.2817		9.98	10.0	-0.2	30.0
13C2 PFTeDA	Ave	0.4013	0.3842		9.57	10.0	-4.3	30.0

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: MB 410-269643/1-A

Matrix: Water Lab File ID: 22JUL02-02.d

Analysis Method: 537 IDA Date Collected: _____

Extraction Method: 537 IDA Date Extracted: 06/27/2022 09:03

Sample wt/vol: 250 (mL) Date Analyzed: 07/02/2022 16:00

Con. Extract Vol.: 1 (mL) Dilution Factor: 1

Injection Volume: 4 (uL) GC Column: Gemini C18 50mm ID: 3 (mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____

Analysis Batch No.: 271895 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	0.50	U	2.0	0.50
375-85-9	Perfluoroheptanoic acid	0.50	U	2.0	0.50
335-67-1	Perfluorooctanoic acid	0.50	U	2.0	0.50
375-95-1	Perfluorononanoic acid	0.50	U	2.0	0.50
335-76-2	Perfluorodecanoic acid	0.50	U	2.0	0.50
72629-94-8	Perfluorotridecanoic acid	0.50	U	2.0	0.50
376-06-7	Perfluorotetradecanoic acid	0.50	U	2.0	0.50
375-73-5	Perfluorobutanesulfonic acid	0.50	U	2.0	0.50
355-46-4	Perfluorohexanesulfonic acid	0.50	U	2.0	0.50
1763-23-1	Perfluorooctanesulfonic acid	0.50	U	2.0	0.50
2991-50-6	NEtFOSAA	0.50	U	3.0	0.50
2355-31-9	NMeFOSAA	0.60	U	2.0	0.60
307-55-1	Perfluorododecanoic acid	0.50	U	2.0	0.50
13252-13-6	HFPODA	1.0	U	3.0	1.0
756426-58-1	9Cl-PF3ONS	0.50	U	2.0	0.50
763051-92-9	11Cl-PF3OUdS	0.50	U	2.0	0.50
919005-14-4	DONA	0.50	U	2.0	0.50
2058-94-8	Perfluoroundecanoic acid	0.50	U	2.0	0.50

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: MB 410-269643/1-A

Matrix: Water Lab File ID: 22JUL02-02.d

Analysis Method: 537 IDA Date Collected: _____

Extraction Method: 537 IDA Date Extracted: 06/27/2022 09:03

Sample wt/vol: 250 (mL) Date Analyzed: 07/02/2022 16:00

Con. Extract Vol.: 1 (mL) Dilution Factor: 1

Injection Volume: 4 (uL) GC Column: Gemini C18 50mm ID: 3 (mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____

Analysis Batch No.: 271895 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02577	13C5 PFHxA	91		24-179
STL01892	13C4 PFHpA	96		31-182
STL01052	13C8 PFOA	89		48-162
STL02578	13C9 PFNA	92		51-167
STL02579	13C6 PFDA	86		49-163
STL02703	13C2-PFD _o DA	80		17-176
STL02116	13C2 PFTeDA	76		10-179
STL02337	13C3 PFBS	91		16-200
STL02581	13C3 PFHxS	88		28-188
STL01054	13C8 PFOS	96		51-159
STL02118	d3-NMeFOSAA	81		31-174
STL02117	d5-NEtFOSAA	78		29-195
STL02255	13C3 HFPO-DA	81		17-185
STL02580	13C7 PFUnA	86		34-174

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: ICB 410-271695/8

Matrix: Water Lab File ID: 22JUL01XMCAL-08.d

Analysis Method: 537 IDA Date Collected: _____

Extraction Method: _____ Date Extracted: _____

Sample wt/vol: 0 (mL) Date Analyzed: 07/01/2022 14:26

Con. Extract Vol.: _____ Dilution Factor: 1

Injection Volume: 4 (uL) GC Column: Gemini C18 50mm ID: 3 (mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____

Analysis Batch No.: 271695 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	0.13	U	0.50	0.13
375-85-9	Perfluoroheptanoic acid	0.13	U	0.50	0.13
335-67-1	Perfluorooctanoic acid	0.13	U	0.50	0.13
375-95-1	Perfluorononanoic acid	0.13	U	0.50	0.13
335-76-2	Perfluorodecanoic acid	0.13	U	0.50	0.13
72629-94-8	Perfluorotridecanoic acid	0.13	U	0.50	0.13
376-06-7	Perfluorotetradecanoic acid	0.13	U	0.50	0.13
375-73-5	Perfluorobutanesulfonic acid	0.13	U	0.50	0.13
355-46-4	Perfluorohexanesulfonic acid	0.13	U	0.50	0.13
1763-23-1	Perfluorooctanesulfonic acid	0.13	U	0.50	0.13
2991-50-6	NEtFOSAA	0.13	U	1.3	0.13
2355-31-9	NMeFOSAA	0.15	U	0.50	0.15
307-55-1	Perfluorododecanoic acid	0.13	U	0.50	0.13
13252-13-6	HFPODA	0.13	U	0.75	0.13
756426-58-1	9Cl-PF3ONS	0.13	U	0.50	0.13
763051-92-9	11Cl-PF3OUdS	0.13	U	0.50	0.13
919005-14-4	DONA	0.13	U	0.50	0.13
2058-94-8	Perfluoroundecanoic acid	0.13	U	0.50	0.13

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: ICB 410-271695/8

Matrix: Water Lab File ID: 22JUL01XMCAL-08.d

Analysis Method: 537 IDA Date Collected: _____

Extraction Method: _____ Date Extracted: _____

Sample wt/vol: 0 (mL) Date Analyzed: 07/01/2022 14:26

Con. Extract Vol.: _____ Dilution Factor: 1

Injection Volume: 4 (uL) GC Column: Gemini C18 50mm ID: 3 (mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____

Analysis Batch No.: 271695 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02577	13C5 PFHxA	94		24-179
STL01892	13C4 PFHpA	99		31-182
STL01052	13C8 PFOA	94		48-162
STL02578	13C9 PFNA	100		51-167
STL02579	13C6 PFDA	94		49-163
STL02703	13C2-PFDoDA	97		17-176
STL02116	13C2 PFTeDA	85		10-179
STL02337	13C3 PFBS	101		16-200
STL02581	13C3 PFHxS	99		28-188
STL01054	13C8 PFOS	99		51-159
STL02118	d3-NMeFOSAA	94		31-174
STL02117	d5-NEtFOSAA	89		29-195
STL02255	13C3 HFPO-DA	91		17-185
STL02580	13C7 PFUnA	96		34-174

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: ICB 410-272051/8

Matrix: Water Lab File ID: 22JUL04XMCAL-08.d

Analysis Method: 537 IDA Date Collected: _____

Extraction Method: _____ Date Extracted: _____

Sample wt/vol: 0 (mL) Date Analyzed: 07/04/2022 17:33

Con. Extract Vol.: _____ Dilution Factor: 1

Injection Volume: 4 (uL) GC Column: Gemini C18 50mm ID: 3 (mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____

Analysis Batch No.: 272051 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	0.13	U	0.50	0.13
375-85-9	Perfluoroheptanoic acid	0.13	U	0.50	0.13
335-67-1	Perfluorooctanoic acid	0.13	U	0.50	0.13
375-95-1	Perfluorononanoic acid	0.13	U	0.50	0.13
335-76-2	Perfluorodecanoic acid	0.13	U	0.50	0.13
72629-94-8	Perfluorotridecanoic acid	0.13	U	0.50	0.13
376-06-7	Perfluorotetradecanoic acid	0.141	J	0.50	0.13
375-73-5	Perfluorobutanesulfonic acid	0.13	U	0.50	0.13
355-46-4	Perfluorohexanesulfonic acid	0.13	U	0.50	0.13
1763-23-1	Perfluorooctanesulfonic acid	0.13	U	0.50	0.13
2991-50-6	NEtFOSAA	0.13	U	1.3	0.13
2355-31-9	NMeFOSAA	0.15	U	0.50	0.15
307-55-1	Perfluorododecanoic acid	0.13	U	0.50	0.13
13252-13-6	HFPODA	0.13	U	0.75	0.13
756426-58-1	9Cl-PF3ONS	0.13	U	0.50	0.13
763051-92-9	11Cl-PF3OUdS	0.13	U	0.50	0.13
919005-14-4	DONA	0.13	U	0.50	0.13
2058-94-8	Perfluoroundecanoic acid	0.13	U	0.50	0.13

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: ICB 410-272051/8

Matrix: Water Lab File ID: 22JUL04XMCAL-08.d

Analysis Method: 537 IDA Date Collected: _____

Extraction Method: _____ Date Extracted: _____

Sample wt/vol: 0 (mL) Date Analyzed: 07/04/2022 17:33

Con. Extract Vol.: _____ Dilution Factor: 1

Injection Volume: 4 (uL) GC Column: Gemini C18 50mm ID: 3 (mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____

Analysis Batch No.: 272051 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02577	13C5 PFHxA	88		24-179
STL01892	13C4 PFHpA	94		31-182
STL01052	13C8 PFOA	98		48-162
STL02578	13C9 PFNA	98		51-167
STL02579	13C6 PFDA	92		49-163
STL02703	13C2-PFDoDA	98		17-176
STL02116	13C2 PFTeDA	96		10-179
STL02337	13C3 PFBS	92		16-200
STL02581	13C3 PFHxS	103		28-188
STL01054	13C8 PFOS	92		51-159
STL02118	d3-NMeFOSAA	104		31-174
STL02117	d5-NEtFOSAA	98		29-195
STL02255	13C3 HFPO-DA	86		17-185
STL02580	13C7 PFUnA	100		34-174

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: LCS 410-269643/2-A

Matrix: Water Lab File ID: 22JUL02-03.d

Analysis Method: 537 IDA Date Collected: _____

Extraction Method: 537 IDA Date Extracted: 06/27/2022 09:03

Sample wt/vol: 250 (mL) Date Analyzed: 07/02/2022 16:13

Con. Extract Vol.: 1 (mL) Dilution Factor: 1

Injection Volume: 4 (uL) GC Column: Gemini C18 50mm ID: 3 (mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____

Analysis Batch No.: 271895 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
307-24-4	Perfluorohexanoic acid	23.1		2.0	0.50
375-85-9	Perfluoroheptanoic acid	22.3		2.0	0.50
335-67-1	Perfluorooctanoic acid	24.2		2.0	0.50
375-95-1	Perfluorononanoic acid	25.3		2.0	0.50
335-76-2	Perfluorodecanoic acid	24.5		2.0	0.50
72629-94-8	Perfluorotridecanoic acid	21.0		2.0	0.50
376-06-7	Perfluorotetradecanoic acid	22.8		2.0	0.50
375-73-5	Perfluorobutanesulfonic acid	21.7		2.0	0.50
355-46-4	Perfluorohexanesulfonic acid	18.8		2.0	0.50
1763-23-1	Perfluorooctanesulfonic acid	23.4		2.0	0.50
2991-50-6	NEtFOSAA	23.5		3.0	0.50
2355-31-9	NMeFOSAA	24.9		2.0	0.60
307-55-1	Perfluorododecanoic acid	23.6		2.0	0.50
13252-13-6	HFPODA	21.2		3.0	1.0
756426-58-1	9Cl-PF3ONS	22.4		2.0	0.50
763051-92-9	11Cl-PF3OUDS	22.5		2.0	0.50
919005-14-4	DONA	22.3		2.0	0.50
2058-94-8	Perfluoroundecanoic acid	23.4		2.0	0.50

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 240-168405-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: LCS 410-269643/2-A

Matrix: Water Lab File ID: 22JUL02-03.d

Analysis Method: 537 IDA Date Collected: _____

Extraction Method: 537 IDA Date Extracted: 06/27/2022 09:03

Sample wt/vol: 250 (mL) Date Analyzed: 07/02/2022 16:13

Con. Extract Vol.: 1 (mL) Dilution Factor: 1

Injection Volume: 4 (uL) GC Column: Gemini C18 50mm ID: 3 (mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____

Analysis Batch No.: 271895 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02577	13C5 PFHxA	96		24-179
STL01892	13C4 PFHpA	100		31-182
STL01052	13C8 PFOA	96		48-162
STL02578	13C9 PFNA	92		51-167
STL02579	13C6 PFDA	97		49-163
STL02703	13C2-PFD _o DA	94		17-176
STL02116	13C2 PFTeDA	95		10-179
STL02337	13C3 PFBS	92		16-200
STL02581	13C3 PFHxS	96		28-188
STL01054	13C8 PFOS	90		51-159
STL02118	d3-NMeFOSAA	91		31-174
STL02117	d5-NEtFOSAA	84		29-195
STL02255	13C3 HFPO-DA	93		17-185
STL02580	13C7 PFUnA	98		34-174

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Start Date: 07/01/2022 13:08

Analysis Batch Number: 271695 End Date: 07/01/2022 14:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 410-271695/1		07/01/2022 13:08	1	22JUL01XMCAL-01 .d	Gemini C18 50mm 3 (mm)
IC 410-271695/2		07/01/2022 13:19	1	22JUL01XMCAL-02 .d	Gemini C18 50mm 3 (mm)
IC 410-271695/3		07/01/2022 13:31	1	22JUL01XMCAL-03 .d	Gemini C18 50mm 3 (mm)
IC 410-271695/4		07/01/2022 13:42	1	22JUL01XMCAL-04 .d	Gemini C18 50mm 3 (mm)
ICISAV 410-271695/5		07/01/2022 13:53	1	22JUL01XMCAL-05 .d	Gemini C18 50mm 3 (mm)
IC 410-271695/6		07/01/2022 14:04	1	22JUL01XMCAL-06 .d	Gemini C18 50mm 3 (mm)
IC 410-271695/7		07/01/2022 14:15	1	22JUL01XMCAL-07 .d	Gemini C18 50mm 3 (mm)
ICB 410-271695/8		07/01/2022 14:26	1	22JUL01XMCAL-08 .d	Gemini C18 50mm 3 (mm)
ICV 410-271695/9		07/01/2022 14:37	1	22JUL01XMCAL-09 .d	Gemini C18 50mm 3 (mm)
WDM 410-271695/10		07/01/2022 14:48	1	22JUL01XMCAL-10 .d	Gemini C18 50mm 3 (mm)

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Start Date: 07/02/2022 15:49

Analysis Batch Number: 271895 End Date: 07/03/2022 19:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 410-271895/1		07/02/2022 15:49	1	22JUL02-01.d	Gemini C18 50mm 3 (mm)
MB 410-269643/1-A		07/02/2022 16:00	1	22JUL02-02.d	Gemini C18 50mm 3 (mm)
LCS 410-269643/2-A		07/02/2022 16:13	1	22JUL02-03.d	Gemini C18 50mm 3 (mm)
240-168405-1	MSA-WC-MTW-061522	07/02/2022 16:24	1	22JUL02-04.d	Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 16:35	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 16:46	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 16:57	100		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 17:08	100		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 17:20	100		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 17:31	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 17:42	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 17:53	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 18:04	1		Gemini C18 50mm 3 (mm)
CCV 410-271895/14		07/02/2022 18:15	1	22JUL02-14.d	Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 18:26	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 18:37	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 18:48	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 18:59	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 19:11	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 19:22	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 19:33	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 19:44	1		Gemini C18 50mm 3 (mm)
CCV 410-271895/24		07/02/2022 20:06	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 20:17	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 20:28	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 20:39	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 20:51	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 21:02	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 21:13	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 21:24	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 21:35	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 21:46	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 21:57	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 22:08	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 22:19	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/02/2022 22:30	1		Gemini C18 50mm 3 (mm)
CCV 410-271895/39		07/02/2022 22:53	1		Gemini C18 50mm 3 (mm)
CCVL 410-271895/40		07/02/2022 23:04	1		Gemini C18 50mm 3 (mm)
CCV 410-271895/51		07/03/2022 01:06	1		Gemini C18 50mm 3 (mm)
CCV 410-271895/64		07/03/2022 03:31	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 03:53	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 04:04	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 04:15	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 04:27	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 04:38	1		Gemini C18 50mm 3 (mm)

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Start Date: 07/02/2022 15:49

Analysis Batch Number: 271895 End Date: 07/03/2022 19:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		07/03/2022 04:49	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 05:00	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 05:11	1		Gemini C18 50mm 3 (mm)
CCV 410-271895/75		07/03/2022 05:33	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 05:44	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 06:06	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 06:17	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 06:29	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 06:40	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 06:51	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 07:02	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 07:13	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 07:24	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 07:35	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 07:46	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 07:57	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 08:08	1		Gemini C18 50mm 3 (mm)
CCV 410-271895/90		07/03/2022 08:19	1		Gemini C18 50mm 3 (mm)
CCV 410-271895/100		07/03/2022 10:11	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 11:17	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 11:28	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 11:39	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 11:51	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 12:02	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 12:13	1		Gemini C18 50mm 3 (mm)
CCV 410-271895/114		07/03/2022 12:46	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 13:19	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 13:31	1		Gemini C18 50mm 3 (mm)
CCV 410-271895/126		07/03/2022 15:01	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 15:45	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 15:56	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 16:07	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 16:18	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 16:29	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 16:40	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 16:52	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 17:03	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 17:14	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 17:25	1		Gemini C18 50mm 3 (mm)
CCV 410-271895/140		07/03/2022 17:36	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 17:47	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/03/2022 17:58	1		Gemini C18 50mm 3 (mm)
CCV 410-271895/152		07/03/2022 19:49	1		Gemini C18 50mm 3 (mm)

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Start Date: 07/04/2022 16:15

Analysis Batch Number: 272051 End Date: 07/04/2022 17:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 410-272051/1		07/04/2022 16:15	1	22JUL04XMCAL-01 .d	Gemini C18 50mm 3 (mm)
IC 410-272051/2		07/04/2022 16:26	1	22JUL04XMCAL-02 .d	Gemini C18 50mm 3 (mm)
IC 410-272051/3		07/04/2022 16:38	1	22JUL04XMCAL-03 .d	Gemini C18 50mm 3 (mm)
IC 410-272051/4		07/04/2022 16:49	1	22JUL04XMCAL-04 .d	Gemini C18 50mm 3 (mm)
ICISAV 410-272051/5		07/04/2022 17:00	1	22JUL04XMCAL-05 .d	Gemini C18 50mm 3 (mm)
IC 410-272051/6		07/04/2022 17:11	1	22JUL04XMCAL-06 .d	Gemini C18 50mm 3 (mm)
IC 410-272051/7		07/04/2022 17:22	1	22JUL04XMCAL-07 .d	Gemini C18 50mm 3 (mm)
ICB 410-272051/8		07/04/2022 17:33	1	22JUL04XMCAL-08 .d	Gemini C18 50mm 3 (mm)
ICV 410-272051/9		07/04/2022 17:44	1	22JUL04XMCAL-09 .d	Gemini C18 50mm 3 (mm)
WDM 410-272051/10		07/04/2022 17:55	1	22JUL04XMCAL-10 .d	Gemini C18 50mm 3 (mm)

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Start Date: 07/06/2022 11:56

Analysis Batch Number: 272691 End Date: 07/07/2022 01:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 410-272691/4		07/06/2022 11:56	1	22JUL06-04.d	Gemini C18 50mm 3 (mm)
240-168405-1 RA	MSA-WC-MTW-061522 RA	07/06/2022 12:07	1	22JUL06-05.d	Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 12:30	10		Gemini C18 50mm 3 (mm)
CCV 410-272691/11		07/06/2022 13:15	1	22JUL06-11.d	Gemini C18 50mm 3 (mm)
CCV 410-272691/85		07/06/2022 18:03	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 18:14	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 18:25	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 18:36	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 18:47	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 18:58	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 19:09	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 19:20	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 19:31	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 19:43	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 19:54	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 20:05	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 20:16	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 20:28	1		Gemini C18 50mm 3 (mm)
CCV 410-272691/86		07/06/2022 20:40	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 20:51	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 21:03	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 21:14	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 21:26	1		Gemini C18 50mm 3 (mm)
CCV 410-272691/87		07/06/2022 21:37	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 21:48	1		Gemini C18 50mm 3 (mm)
ZZZZZ		07/06/2022 21:59	1		Gemini C18 50mm 3 (mm)
		07/06/2022 22:10	1		Gemini C18 50mm 3 (mm)
		07/06/2022 22:21	1		Gemini C18 50mm 3 (mm)
		07/06/2022 22:32	1		Gemini C18 50mm 3 (mm)
		07/06/2022 22:43	1		Gemini C18 50mm 3 (mm)
		07/06/2022 22:54	1		Gemini C18 50mm 3 (mm)
		07/06/2022 23:05	1		Gemini C18 50mm 3 (mm)
		07/06/2022 23:17	10		Gemini C18 50mm 3 (mm)
		07/06/2022 23:28	1		Gemini C18 50mm 3 (mm)
		07/06/2022 23:39	1		Gemini C18 50mm 3 (mm)
		07/06/2022 23:50	10		Gemini C18 50mm 3 (mm)
CCV 410-272691/110		07/07/2022 00:01	1		Gemini C18 50mm 3 (mm)
		07/07/2022 00:12	100		Gemini C18 50mm 3 (mm)
		07/07/2022 00:23	1		Gemini C18 50mm 3 (mm)
		07/07/2022 00:34	10		Gemini C18 50mm 3 (mm)
		07/07/2022 00:45	100		Gemini C18 50mm 3 (mm)
		07/07/2022 00:56	1		Gemini C18 50mm 3 (mm)
		07/07/2022 01:08	10		Gemini C18 50mm 3 (mm)
		07/07/2022 01:19	100		Gemini C18 50mm 3 (mm)
		07/07/2022 01:30	10		Gemini C18 50mm 3 (mm)

PFAS ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 240-168405-1

SDG No.: _____

Instrument ID: 30733 Start Date: 07/06/2022 11:56

Analysis Batch Number: 272691 End Date: 07/07/2022 01:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 410-272691/111		07/07/2022 01:41	1		Gemini C18 50mm 3(mm)

PFAS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 240-168405-1

SDG No.: _____

Batch Number: 269643 Batch Start Date: 06/27/22 09:03 Batch Analyst: Costello, Miranda

Batch Method: 537 IDA Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	PFC_MS_MODWX 00138	PFC_SS_MODX 00273
MB 410-269643/1		537 IDA, 537 IDA		300 g	50 g	250 mL	1 mL		25 uL
LCS 410-269643/2		537 IDA, 537 IDA		300 g	50 g	250 mL	1 mL	40 uL	25 uL
240-168405-A-1	MSA-WC-MTW-06152 2	537 IDA, 537 IDA	T	318.07 g	28.34 g	289.7 mL	1 mL		25 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
MB 410-269643/1		537 IDA, 537 IDA							
LCS 410-269643/2		537 IDA, 537 IDA							
240-168405-A-1	MSA-WC-MTW-06152 2	537 IDA, 537 IDA	T	particulate present, sample centrifuged, Vacuum Was Applied					

Batch Notes	
Manifold ID	7, 1
SPE Cartridge Lot ID	6673424-01
Balance ID	B629764122
Pipette/Syringe/Dispenser ID	P10-5/ PFAS 6, 7
Methanol ID	ED663-15
H2O ID	House 372-A
Solvent Name	.3% NH4OH in MeOH, 1:1 ACN:MeOH
Solvent Lot #	1984306262233A, 2011506272233A
Analyst ID - Reagent Drop	SH19843
Analyst ID - IS Reagent Drop Witness	MC45477
Collection Tube Witness	PC44221
Centrifuge Tube ID	20211026-058
QC Bottle Lot ID	0304101H

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.

PFAS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 240-168405-1

SDG No.: _____

Batch Number: 269643 Batch Start Date: 06/27/22 09:03 Batch Analyst: Costello, Miranda

Batch Method: 537 IDA Batch End Date: _____

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.

PFAS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 240-168405-1

SDG No.: _____

Batch Number: 271695 Batch Start Date: 07/01/22 13:08 Batch Analyst: Fellenbaum, Adam

Batch Method: 537 IDA Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	PFC_ICV_MOD 00044	PFC_IS_MOD 00323	PFC_LB_MOD 00030	PFC_SS_MODX 00239	PFC_STD_XMOD1 00016	PFC_STD_XMOD2 00016
IC 410-271695/1		537 IDA						200 uL	
IC 410-271695/2		537 IDA							200 uL
IC 410-271695/3		537 IDA							
IC 410-271695/4		537 IDA							
ICISAV 410-271695/5		537 IDA							
IC 410-271695/6		537 IDA							
IC 410-271695/7		537 IDA							
ICB 410-271695/8		537 IDA			50 uL		25 uL		
ICV 410-271695/9		537 IDA		200 uL					
WDM 410-271695/10		537 IDA				200 uL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	PFC_STD_XMOD3 00018	PFC_STD_XMOD4 00018	PFC_STD_XMOD5 00017	PFC_STD_XMOD6 00018	PFC_STD_XMOD7 00018
IC 410-271695/1		537 IDA						
IC 410-271695/2		537 IDA						
IC 410-271695/3		537 IDA		200 uL				
IC 410-271695/4		537 IDA			200 uL			
ICISAV 410-271695/5		537 IDA				200 uL		
IC 410-271695/6		537 IDA					200 uL	
IC 410-271695/7		537 IDA						200 uL
ICB 410-271695/8		537 IDA						
ICV 410-271695/9		537 IDA						
WDM 410-271695/10		537 IDA						

Batch Notes	
Mobil Phase ID	2732106272233A, 2732106272233B

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.

PFAS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 240-168405-1

SDG No.: _____

Batch Number: 271695 Batch Start Date: 07/01/22 13:08 Batch Analyst: Fellenbaum, Adam

Batch Method: 537 IDA Batch End Date: _____

Basis	Basis Description

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.

PFAS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 240-168405-1

SDG No.: _____

Batch Number: 272051 Batch Start Date: 07/04/22 16:15 Batch Analyst: Kruelle, Hannah K

Batch Method: 537 IDA Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	PFC_ICV_MOD 00044	PFC_IS_MOD 00323	PFC_LB_MOD 00030	PFC_SS_MODX 00279	PFC_STD_XMOD1 00016	PFC_STD_XMOD2 00016
IC 410-272051/1		537 IDA						200 uL	
IC 410-272051/2		537 IDA							200 uL
IC 410-272051/3		537 IDA							
IC 410-272051/4		537 IDA							
ICISAV 410-272051/5		537 IDA							
IC 410-272051/6		537 IDA							
IC 410-272051/7		537 IDA							
ICB 410-272051/8		537 IDA			50 uL		25 uL		
ICV 410-272051/9		537 IDA		200 uL					
WDM 410-272051/10		537 IDA				200 uL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	PFC_STD_XMOD3 00018	PFC_STD_XMOD4 00018	PFC_STD_XMOD5 00017	PFC_STD_XMOD6 00018	PFC_STD_XMOD7 00018
IC 410-272051/1		537 IDA						
IC 410-272051/2		537 IDA						
IC 410-272051/3		537 IDA		200 uL				
IC 410-272051/4		537 IDA			200 uL			
ICISAV 410-272051/5		537 IDA				200 uL		
IC 410-272051/6		537 IDA					200 uL	
IC 410-272051/7		537 IDA						200 uL
ICB 410-272051/8		537 IDA						
ICV 410-272051/9		537 IDA						
WDM 410-272051/10		537 IDA						

Batch Notes	
Mobil Phase ID	2732106272233A; 2732106272233B

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.

PFAS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 240-168405-1

SDG No.: _____

Batch Number: 272051 Batch Start Date: 07/04/22 16:15 Batch Analyst: Kruelle, Hannah K

Batch Method: 537 IDA Batch End Date: _____

Basis	Basis Description

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.

Subcontract Data

Shipping and Receiving Documents

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-168405-1

Login Number: 168405
List Number: 1
Creator: Cisneros, Roxanne

List Source: Eurofins Canton

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

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 240-168405-1

Login Number: 168405
List Number: 2
Creator: Foreman, Leah M

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 06/17/22 09:36 AM

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace $>6\text{mm}$ in diameter (none, if from WV)?	True	

APPENDIX D-ANALYTICAL DATA TABLES

LOCATION	MSA-DMW-02A	MSA-DMW-02B	MSA-DMW-03I	MSA-DMW-03S	MSA-DMW-04D
SAMPLE ID	MSA-DMW-2A-051822	MSA-DMW-2B-051822	MSA-DMW-3I-052322	MSA-DMW-3S-051922	MSA-DMW-4D-051922
SAMPLE DATE	20220518	20220518	20220523	20220519	20220519
VOLATILES (UG/L)					
1,1,1,2-TETRACHLOROETHANE	43 U	0.43 U	8.6 U	0.86 U	0.43 U
1,1,1-TRICHLOROETHANE	48 U	0.48 U	9.6 U	0.96 U	0.48 U
1,1,2-TETRACHLOROETHANE	60 U	0.6 U	12 U	1.2 U	0.6 U
1,1,2-TRICHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	41 U	0.41 U	8.2 U	0.82 U	0.41 U
1,1-DICHLOROETHANE	47 U	0.47 U	9.4 U	0.94 U	0.47 U
1,1-DICHLOROETHENE	49 U	0.49 U	9.8 U	2.3	0.49 U
1,1-DICHLOROPROPENE	36 U	0.36 U	7.2 U	0.72 U	0.36 U
1,2,3-TRICHLOROBENZENE	54 U	0.54 U	11 U	1.1 UJ	0.54 UJ
1,2,3-TRICHLOROPROPANE	52 U	0.52 U	10 U	1 U	0.52 U
1,2,3-TRIMETHYLBENZENE	31 U	0.31 U	6.2 U	1.2 J	0.31 UJ
1,2,4-TRICHLOROBENZENE	77 U	0.77 U	15 U	1.5 UJ	0.77 UJ
1,2,4-TRIMETHYLBENZENE	52 U	0.52 U	10 U	1 U	0.52 U
1,2-DIBROMO-3-CHLOROPROPANE	91 U	0.91 U	18 U	1.8 U	0.91 U
1,2-DIBROMOETHANE	41 U	0.41 U	8.2 U	0.82 U	0.41 U
1,2-DICHLOROBENZENE	48 U	0.48 U	9.6 U	3.5	0.48 U
1,2-DICHLOROETHANE	21 U	0.21 U	5.8 J	5.1	0.21 U
1,2-DICHLOROPROPANE	47 U	0.47 U	9.4 U	0.94 U	0.47 U
1,3-DICHLOROBENZENE	45 U	0.45 U	9 U	0.9 U	0.45 U
1,3-DICHLOROPROPANE	21 U	0.21 U	4.2 U	0.42 U	0.21 U
1,4-DICHLOROBENZENE	41 U	0.41 U	8.2 U	0.82 U	0.41 U
2,2-DICHLOROPROPANE	78 U	0.78 U	16 U	1.6 U	0.78 U
2-BUTANONE	120 UJ	1.2 UJ	23 U	2.3 U	1.2 U
2-CHLOROETHYL VINYL ETHER	150 UR	1.5 UR	31 UR	3.1 UR	1.5 UR
2-CHLOROTOLUENE	57 U	0.57 U	11 U	1.1 U	0.57 U
2-HEXANONE	110 U	1.1 U	22 U	2.2 U	1.1 U
4-CHLOROTOLUENE	43 U	0.43 U	8.6 U	0.86 U	0.43 U
4-ISOPROPYLTOLUENE	56 U	0.56 U	11 U	1.1 U	0.56 U
4-METHYL-2-PENTANONE	99 U	0.99 U	20 U	2 U	0.99 U
ACETONE	540 U	5.4 U	110 U	11 U	5.4 U
ACROLEIN	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--
BENZENE	42 U	0.42 U	8.4 U	7.7	0.42 U
BROMOBENZENE	50 U	0.5 U	10 U	1 U	0.5 U
BROMOCHLOROMETHANE	54 U	0.54 U	11 U	1.1 U	0.54 U
BROMODICHLOROMETHANE	17 U	0.17 U	3.4 U	0.34 U	0.17 U
BROMOFORM	76 U	0.76 U	15 U	1.5 UJ	0.76 UJ
BROMOMETHANE	42 UJ	0.42 UJ	8.4 UJ	0.84 U	0.42 U
CARBON DISULFIDE	59 U	0.59 U	12 U	1.2 U	0.59 U
CARBON TETRACHLORIDE	26 U	0.26 U	5.2 U	0.52 U	0.26 U
CHLOROBENZENE	38 U	0.38 U	7.6 U	0.9 J	0.38 U
CHLORODIBROMOMETHANE	39 U	0.39 U	7.8 U	0.78 U	0.39 U
CHLORODIFLUOROMETHANE	100 UJ	1 UJ	20 UJ	2 UJ	1 UJ
CHLOROETHANE	83 U	0.83 U	17 UJ	1.7 U	0.83 U
CHLOROFORM	47 U	0.47 U	9.4 U	0.94 U	0.47 U
CHLOROMETHANE	63 U	0.63 UJ	13 UJ	1.3 U	0.63 U
CIS-1,2-DICHLOROETHENE	830	4.3	440	980 J	33
CIS-1,3-DICHLOROPROPENE	61 U	0.61 U	12 U	1.2 U	0.61 U
DIBROMOMETHANE	40 U	0.4 U	8 U	0.8 U	0.4 U
DICHLORODIFLUOROMETHANE	35 UJ	0.35 U	7 U	0.7 UJ	0.35 UJ
DIISOPROPYL ETHER	17 U	0.17 U	3.4 U	1.1 J	0.17 U
ETHYL TERT-BUTYL ETHER	40 U	0.4 U	8 U	0.8 U	0.4 U
ETHYLBENZENE	42 U	0.42 U	8.4 U	5.5	0.42 U
HEXACHLOROBUTADIENE	83 U	0.83 U	17 U	1.7 UJ	0.83 UJ
ISOPROPYLBENZENE	49 U	0.49 U	9.8 U	0.98 U	0.49 U
M+P-XYLENES	42 U	0.42 U	8.4 U	3.7 J	0.42 U
METHYL TERT-BUTYL ETHER	47 U	0.47 U	9.4 U	0.94 U	0.47 U
METHYLENE CHLORIDE	260 U	2.6 U	52 U	5.2 U	2.6 U
NAPHTHALENE	80 UJ	0.8 U	16 UJ	3.6	0.8 U
N-BUTYLBENZENE	60 U	0.6 U	12 U	1.2 UJ	0.6 U
N-PROPYLBENZENE	57 U	0.57 U	11 U	1.1 U	0.57 U
O-XYLENE	42 U	0.42 U	8.4 U	4.7	0.42 U
SEC-BUTYLBENZENE	53 U	0.53 U	11 U	1.1 U	0.53 U
STYRENE	45 U	0.45 U	9 U	0.9 U	0.45 U
TERT-AMYL METHYL ETHER	43 U	0.43 U	8.6 U	0.86 U	0.43 U
TERT-BUTYLBENZENE	48 U	0.48 U	9.6 U	0.96 U	0.48 U
TERTIARY-BUTYL ALCOHOL	720 U	7.2 UJ	140 UJ	19 J	7.2 U
TETRACHLOROETHENE	44 U	0.44 U	8.8 U	0.88 U	0.44 U
TOLUENE	44 U	0.44 U	8.8 U	34	0.44 U
TOTAL XYLENES	42 U	0.42 U	8.4 U	8.4	0.42 U
TRANS-1,2-DICHLOROETHENE	51 U	0.51 U	10 U	220 J	0.51 U
TRANS-1,3-DICHLOROPROPENE	67 U	0.67 U	13 U	1.3 U	0.67 U
TRICHLOROETHENE	2400	1.6	560	5.4	48
TRICHLORODIFLUOROMETHANE	45 U	0.45 U	9 UJ	0.9 U	0.45 U
VINYL ACETATE	61 UJ	0.61 UJ	12 U	1.2 U	0.61 U
VINYL CHLORIDE	290	0.45 UJ	240	3600 J	2.3
SEMI-VOLATILES (UG/L)					
1,4-DIOXANE	48 J	0.37 UJ	25 J	170 J	0.37 UJ
METALS (UG/L)					
ANTIMONY	0.57 U	--	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	--	0.75 U	13	0.75 U
BERYLLIUM	3	--	4.3	0.62 U	3
CADMIUM	360	--	800	0.2 U	2
CHROMIUM	2.8 J	--	3.7 J	4.7 J	2.5 U
COPPER	33	--	8.2	1.7 U	31
LEAD	2.1	--	1.8	1.1	0.45 U
MERCURY	0.13 J	--	0.13 U	0.19 J	3.2
NICKEL	140	--	85	2.7	41
SELENIUM	1.5 J	--	1.4 J	0.89 U	1.5 J
SILVER	0.053 U	--	0.053 U	0.053 U	0.053 U
THALLIUM	0.43 J	--	0.58 U	0.2 U	0.43 J
ZINC	420	--	250	15 U	79
METALS FILTERED (UG/L)					
ANTIMONY	0.57 U	--	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	--	0.75 U	14	0.75 U
BERYLLIUM	2.9	--	4.2	0.62 U	3
CADMIUM	350	--	810	0.2 U	1.9
CHROMIUM	2.5 U	--	3.8 J	2.5 U	2.5 U
COPPER	33	--	8.9	1.7 U	31
LEAD	1.9	--	1.7	0.45 U	0.5 J
MERCURY	0.13 U	--	0.13 U	0.14 J	2.7
NICKEL	140	--	91	1.5 U	42
SELENIUM	1.4 J	--	1.4 J	0.89 U	1.8 J
SILVER	0.053 U	--	0.053 U	0.053 U	0.053 U
THALLIUM	0.31 J	--	0.55 U	0.2 U	0.63 J
ZINC	420	--	270	15 U	80
MISCELLANEOUS (UG/L)					
HEXAVALENT CHROMIUM	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/L)					
TPH (C6-C10)	--	--	--	830	--
TPH (C10-C28)	--	--	--	1800	--
RADIONUCLIDES (PCI/L)					
RADIUM-228	--	--	14.1	--	--
TOTAL ALPHA RADIUM	--	--	4.87	--	--

LOCATION	MSA-DMW-04I	MSA-DMW-05S	MSA-DMW-06D	MSA-DMW-06I	MSA-DMW-06S	MSA-DMW-07D	MSA-DMW-07I	MSA-DMW-07S
SAMPLE ID	MSA-DMW-4I-051922	MSA-DMW-5S-051922	MSA-DMW-6D-060622	MSA-DMW-6I-060622	MSA-DMW-6S-060622	MSA-DMW-7D-052022	MSA-DMW-7I-052022	MSA-DMW-7S-052022
SAMPLE DATE	20220519	20220519	20220606	20220606	20220606	20220520	20220520	20220520
VOLATILES (UG/L)								
1,1,1,2-TETRACHLOROETHANE	0.43 U	0.43 U	0.43 UJ	--	--	--	0.43 U	86 U
1,1,1-TRICHLOROETHANE	5.4	0.48 U	0.48 UJ	--	--	--	0.48 U	96 U
1,1,2-TETRACHLOROETHANE	0.6 U	0.6 U	0.6 UJ	--	--	--	0.6 U	120 U
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	1.3	0.59 J	0.41 UJ	--	--	--	0.41 U	82 U
1,1-DICHLOROETHANE	6.1	0.73 J	0.47 UJ	--	--	--	0.47 U	94 U
1,1-DICHLOROETHENE	17	16	0.49 UJ	--	--	--	0.49 U	98 U
1,1-DICHLOROPROPENE	0.36 U	0.36 U	0.36 UJ	--	--	--	0.36 U	72 U
1,2,3-TRICHLOROBENZENE	0.54 UJ	0.54 UJ	0.54 UJ	--	--	--	0.54 U	110 U
1,2,3-TRICHLOROPROPANE	0.52 U	0.52 U	0.52 UJ	--	--	--	0.52 U	100 U
1,2,3-TRIMETHYLBENZENE	6.6 J	1 J	0.31 UJ	--	--	--	0.31 UJ	62 UJ
1,2,4-TRICHLOROBENZENE	0.77 UJ	0.77 UJ	0.77 UJ	--	--	--	0.77 U	150 U
1,2,4-TRIMETHYLBENZENE	0.52 U	2.3	0.52 UJ	--	--	--	0.52 UJ	100 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 UJ	--	--	--	0.91 UJ	180 UJ
1,2-DIBROMOETHANE	0.41 U	0.41 U	0.41 UJ	--	--	--	0.41 U	82 U
1,2-DICHLOROBENZENE	0.48 U	0.48 U	0.48 UJ	--	--	--	0.48 U	96 U
1,2-DICHLOROETHANE	14	7.7	0.21 UJ	--	--	--	0.56 J	42 U
1,2-DICHLOROPROPANE	0.47 U	0.47 U	0.47 UJ	--	--	--	0.47 U	94 U
1,3-DICHLOROBENZENE	0.45 U	0.45 U	0.45 UJ	--	--	--	0.45 U	90 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 UJ	--	--	--	0.21 U	42 U
1,4-DICHLOROBENZENE	0.41 U	0.41 U	0.41 UJ	--	--	--	0.41 U	82 U
2,2-DICHLOROPROPANE	0.78 U	0.78 U	0.78 UJ	--	--	--	0.78 U	160 U
2-BUTANONE	1.2 U	1.2 U	1.2 UJ	--	--	--	1.2 U	230 U
2-CHLOROETHYL VINYL ETHER	1.5 UR	1.5 UR	1.5 UJ	--	--	--	1.5 UR	310 UR
2-CHLOROTOLUENE	0.57 U	0.57 U	0.57 UJ	--	--	--	0.57 U	110 U
2-HEXANONE	1.1 U	1.1 U	1.1 UJ	--	--	--	1.1 U	220 U
4-CHLOROTOLUENE	0.43 U	0.43 U	0.43 UJ	--	--	--	0.43 U	86 U
4-ISOPROPYLTOLUENE	0.56 U	0.56 U	0.56 UJ	--	--	--	0.56 UJ	110 UJ
4-METHYL-2-PENTANONE	0.99 U	0.99 U	0.99 UJ	--	--	--	0.99 U	200 U
ACETONE	5.4 U	5.4 U	5.4 UJ	--	--	--	5.4 U	1100 U
ACROLEIN	--	--	--	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--	--	--	--
BENZENE	2.4	2.2	0.42 UJ	--	--	--	0.42 U	84 U
BROMOBENZENE	0.5 U	0.5 U	0.5 UJ	--	--	--	0.5 U	100 U
BROMOCHLOROMETHANE	0.54 U	0.54 U	0.54 UJ	--	--	--	0.54 U	110 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 UJ	--	--	--	0.17 U	34 U
BROMOFORM	0.76 UJ	0.76 UJ	0.76 UJ	--	--	--	0.76 UJ	150 UJ
BROMOMETHANE	0.42 U	0.42 U	0.42 UJ	--	--	--	0.42 UJ	84 UJ
CARBON DISULFIDE	0.59 U	0.59 U	0.59 UJ	--	--	--	0.59 U	120 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 UJ	--	--	--	0.26 U	52 U
CHLOROBENZENE	0.77 J	0.38 U	0.38 UJ	--	--	--	0.7 J	76 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 UJ	--	--	--	0.39 U	78 U
CHLORODIFLUOROMETHANE	1 UJ	1 UJ	1 UJ	--	--	--	1 UJ	200 UJ
CHLOROETHANE	0.83 U	0.83 U	0.83 UJ	--	--	--	0.83 UJ	170 UJ
CHLOROFORM	1	0.47 J	0.47 UJ	--	--	--	0.47 U	94 U
CHLOROMETHANE	0.63 U	0.63 U	0.63 UJ	--	--	--	0.63 U	130 U
CIS-1,2-DICHLOROETHENE	2000 J	2700 J	0.46 UJ	--	--	--	57	8400
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 UJ	--	--	--	0.61 U	120 U
DIBROMOMETHANE	0.4 U	0.4 U	0.4 UJ	--	--	--	0.4 U	80 U
DICHLORODIFLUOROMETHANE	0.35 UJ	0.35 UJ	0.35 UJ	--	--	--	0.35 U	70 U
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 UJ	--	--	--	0.17 U	34 U
ETHYL TERT-BUTYL ETHER	0.4 U	0.4 U	0.4 UJ	--	--	--	0.4 U	80 U
ETHYLBENZENE	0.42 U	1.4	0.42 UJ	--	--	--	0.42 U	84 U
HEXACHLOROBUTADIENE	0.83 UJ	0.83 UJ	0.83 UJ	--	--	--	0.83 UJ	170 UJ
ISOPROPYLBENZENE	0.54 J	0.49 U	0.49 UJ	--	--	--	0.49 U	98 U
M+P-XYLENES	0.42 U	2.7	0.42 UJ	--	--	--	0.42 U	84 U
METHYL TERT-BUTYL ETHER	0.47 U	0.47 U	0.47 UJ	--	--	--	0.47 U	94 U
METHYLENE CHLORIDE	3.1 J	2.6 U	2.6 UJ	--	--	--	2.6 U	520 U
NAPHTHALENE	1.3	0.8 U	0.8 UJ	--	--	--	0.8 UJ	160 J
N-BUTYLBENZENE	0.6 UJ	0.6 UJ	0.6 UJ	--	--	--	0.6 UJ	120 UJ
N-PROPYLBENZENE	0.57 U	0.57 U	0.57 UJ	--	--	--	0.57 U	110 U
O-XYLENE	2.1	2	0.42 UJ	--	--	--	0.42 U	84 U
SEC-BUTYLBENZENE	0.56 J	0.58 J	0.53 UJ	--	--	--	0.53 U	110 U
STYRENE	0.45 U	0.45 U	0.45 UJ	--	--	--	0.45 U	90 U
TERT-AMYL METHYL ETHER	0.43 U	0.43 U	0.43 UJ	--	--	--	0.43 U	86 U
TERT-BUTYLBENZENE	0.48 U	0.48 U	0.48 UJ	--	--	--	0.48 U	96 U
TERTIARY-BUTYL ALCOHOL	7.2 U	7.2 U	7.2 UJ	--	--	--	7.2 UJ	1400 UJ
TETRACHLOROETHENE	6.5	4.2	0.44 UJ	--	--	--	0.44 U	88 U
TOLUENE	0.44 U	4.1	0.44 UJ	--	--	--	0.44 U	88 U
TOTAL XYLENES	2.1	4.7	0.42 UJ	--	--	--	0.42 U	84 U
TRANS-1,2-DICHLOROETHENE	20	5.2	0.51 UJ	--	--	--	1.3	100 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 UJ	--	--	--	0.67 U	130 U
TRICHLOROETHENE	4500 J	3000 J	0.44 UJ	--	--	--	44	1400
TRICHLORODIFLUOROMETHANE	0.45 U	0.45 U	0.45 UJ	--	--	--	0.45 UJ	90 UJ
VINYL ACETATE	0.61 U	0.61 U	0.61 UJ	--	--	--	0.61 U	120 U
VINYL CHLORIDE	92 J	990 J	0.45 UJ	--	--	--	23	2100
SEMI-VOLATILES (UG/L)								
1,4-DIOXANE	19 J	6.8 J	0.39 U	--	--	--	1.1 J	18 J
METALS (UG/L)								
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	3.9 J	0.75 U	0.75 U	5.4	0.75 U	0.75 U	0.75 U
BERYLLIUM	2.9	0.62 U	1.2	8.4	0.62 U	1.9	1.7	0.62 U
CADMIUM	11	0.2 U	1.1	3.6	0.2 U	1.8	2.7	0.2 U
CHROMIUM	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	3.3 J	2.5 U
COPPER	68	2.3	11	60	1.7 U	34	3.5	3.5
LEAD	3.2	0.45 U	0.45 U	1.4	0.45 U	3.2	2.3	0.45 U
MERCURY	0.22	0.13 U	0.55	0.21	0.13 U	1.9	0.13 U	0.13 U
NICKEL	52	6.8	49	59	1.5 U	85	37	6.5
SELENIUM	1 J	0.89 U	2.7 J	0.89 U	0.89 U	0.91 J	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.24 J	0.64 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
ZINC	170	18 J	100	230	15 U	150	150	15 U
METALS FILTERED (UG/L)								
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	3.8 J	0.75 U	0.75 U	5	0.75 U	0.75 U	0.75 U
BERYLLIUM	2.9	0.62 U	1.3	7.8	0.62 U	1.8	1.7	0.62 U
CADMIUM	11	0.2 U	1	3	0.2 U	1.9	2	0.2 U
CHROMIUM	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.7 J	2.5 U
COPPER	66	1.7 U	10	55	1.7 U	17	1.7 U	3.1
LEAD	3.2	0.45 U	0.45 U	1.2	0.45 U	2.6	0.95 J	0.45 U
MERCURY	0.13 U	0.13 J	0.13 U	0.13 U	0.13 U	0.31	0.13 U	0.13 U
NICKEL	51	6.3	48	55	1.5 U	87	39	6.7
SELENIUM	0.96 J	0.89 U	2.5 J	0.89 U	0.89 U	1.1 J	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.22 J	0.22 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
ZINC	170	18 J	100	220	15 U	150	150	15 U
MISCELLANEOUS (UG/L)								
HEXAVALENT CHROMIUM	--	--	--	--	0.005 UR	--	--	--
PETROLEUM HYDROCARBONS (UG/L)								
TPH (C6-C10)	--	2400	--	--	49 U	--	--	4700
TPH (C10-C28)	--	410 J	--	--	890	--	--	400 J
RADIONUCLIDES (PCI/L)								
RADIUM-228	--	--	8.6	17.7	1.69 J	--	--	--
TOTAL ALPHA RADIUM	--	--	2.93	6.39	1.2	--	--	--

LOCATION	MSA-DMW-09D	MSA-DMW-09I	MSA-DMW-09S	MSA-DMW-11I	MSA-DMW-11S	MSA-MW-04	MSA-MW-06
SAMPLE ID	MSA-DMW-09D-051722	MSA-DMW-09I-051722	MSA-DMW-09S-051722	MSA-DMW-11I-060922	MSA-DMW-11S-060922	MSA-MW-04-051322	MSA-MW-06-060622
SAMPLE DATE	20220517	20220517	20220517	20220608	20220609	20220513	20220606
VOLATILES (UG/L)							
1,1,1,2-TETRACHLOROETHANE	43 U	17 U	17 U	4.3 U	43 U	0.43 U	0.43 U
1,1,1-TRICHLOROETHANE	48 U	19 U	19 U	4.8 U	48 U	0.48 U	0.48 U
1,1,2-TETRACHLOROETHANE	60 U	24 U	24 U	6 U	60 U	0.6 U	0.6 U
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	41 U	16 U	16 U	4.1 U	41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	47 U	19 U	19 U	4.7 U	47 U	0.47 U	0.47 U
1,1-DICHLOROETHENE	49 U	20 U	20 U	4.9 U	49 U	0.49 U	0.49 U
1,1-DICHLOROPROPENE	36 U	14 U	14 U	3.6 U	36 U	0.36 U	0.36 U
1,2,3-TRICHLOROBENZENE	54 U	22 U	22 U	5.4 U	54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	52 U	21 U	21 U	5.2 U	52 U	0.52 U	0.52 U
1,2,3-TRIMETHYLBENZENE	31 U	12 U	12 U	3.1 U	31 U	0.31 U	0.31 U
1,2,4-TRICHLOROBENZENE	77 U	31 U	31 U	7.7 U	77 U	0.77 U	0.77 U
1,2,4-TRIMETHYLBENZENE	52 U	21 U	21 U	5.2 U	52 U	0.52 U	0.52 U
1,2-DIBROMO-3-CHLOROPROPANE	91 U	36 U	36 U	9.1 U	91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	41 U	16 U	16 U	4.1 U	41 U	0.41 U	0.41 U
1,2-DICHLOROBENZENE	48 U	19 U	19 U	4.8 U	48 U	0.48 U	0.48 U
1,2-DICHLOROETHANE	24 J	46	8.4 U	2.1 U	21 U	0.98 J	0.21 U
1,2-DICHLOROPROPANE	47 U	19 U	19 U	4.7 U	47 U	0.47 U	0.47 U
1,3-DICHLOROBENZENE	45 U	18 U	18 U	4.5 U	45 U	0.45 U	0.45 U
1,3-DICHLOROPROPANE	21 U	8.4 U	8.4 U	2.1 U	21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	41 U	16 U	16 U	4.1 U	41 U	0.41 U	0.41 U
2,2-DICHLOROPROPANE	78 U	31 U	31 U	7.8 U	78 U	0.78 U	0.78 U
2-BUTANONE	120 U	46 U	46 U	12 U	120 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	150 UR	61 UR	61 UR	15 UR	150 UR	1.5 UR	1.5 UR
2-CHLOROTOLUENE	57 U	23 U	23 U	5.7 U	57 U	0.57 U	0.57 U
2-HEXANONE	110 U	44 U	44 U	11 U	110 U	1.1 U	1.1 U
4-CHLOROTOLUENE	43 U	17 U	17 U	4.3 U	43 U	0.43 U	0.43 U
4-ISOPROPYLTOLUENE	56 U	22 U	22 U	5.6 U	56 U	0.56 U	0.56 U
4-METHYL-2-PENTANONE	99 U	40 U	40 U	9.9 U	99 U	0.99 U	0.99 U
ACETONE	540 U	220 U	220 U	54 U	540 U	5.4 U	5.4 U
ACROLEIN	--	--	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--	--	--
BENZENE	42 U	21 J	97	4.2 U	42 U	0.42 U	0.42 U
BROMOBENZENE	50 U	20 U	20 U	5 U	50 U	0.5 U	0.5 U
BROMOCHLOROMETHANE	54 U	22 U	22 U	5.4 U	54 U	0.54 U	0.54 U
BROMODICHLOROMETHANE	17 U	6.8 U	6.8 U	1.7 U	17 U	0.17 U	0.17 U
BROMOFORM	76 U	30 U	30 U	7.6 U	76 U	0.76 U	0.76 U
BROMOMETHANE	42 UJ	17 UJ	17 UJ	4.2 U	42 U	0.42 U	0.42 U
CARBON DISULFIDE	59 U	24 U	24 U	5.9 U	59 U	0.59 U	0.59 U
CARBON TETRACHLORIDE	26 U	15 J	10 U	2.6 U	26 U	0.26 U	0.26 U
CHLOROBENZENE	38 U	15 U	210	3.8 U	38 U	6.8	0.38 U
CHLORODIBROMOMETHANE	39 U	16 U	16 U	3.9 U	39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	100 UJ	40 UJ	40 UJ	10 UJ	100 UJ	1 UJ	1 UJ
CHLOROETHANE	83 U	33 U	33 U	8.3 U	83 U	0.83 U	0.83 U
CHLOROFORM	140	120	19 U	4.7 U	47 U	0.47 U	0.47 U
CHLOROMETHANE	63 U	25 U	25 U	6.3 U	63 U	0.63 U	0.63 U
CIS-1,2-DICHLOROETHENE	680	1400	18 U	340	7200	0.72 J	0.54 J
CIS-1,3-DICHLOROPROPENE	61 U	24 U	24 U	6.1 U	61 U	0.61 U	0.61 U
DIBROMOMETHANE	40 U	16 U	16 U	4 U	40 U	0.4 U	0.4 U
DICHLORODIFLUOROMETHANE	35 UJ	14 UJ	14 UJ	3.5 U	35 U	0.35 U	0.35 U
DIISOPROPYL ETHER	17 U	6.8 U	6.8 U	1.7 U	17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	40 U	16 U	16 U	4 U	40 U	0.4 U	0.4 U
ETHYLBENZENE	42 U	17 U	240	4.2 U	42 U	0.42 U	0.42 U
HEXACHLOROBUTADIENE	83 U	33 U	33 U	8.3 U	83 U	0.83 U	0.83 U
ISOPROPYLBENZENE	49 U	20 U	20 U	4.9 U	49 U	0.49 U	0.49 U
M+P-XYLENES	42 U	17 U	2200	4.2 U	42 U	0.42 U	0.42 U
METHYL TERT-BUTYL ETHER	47 U	19 U	19 U	4.7 U	47 U	0.47 U	0.47 U
METHYLENE CHLORIDE	260 U	100 U	100 U	26 U	260 U	2.6 U	2.6 U
NAPHTHALENE	80 U	32 U	32 U	8 U	80 U	0.8 U	0.8 U
N-BUTYLBENZENE	60 U	24 U	24 U	6 U	60 U	0.6 U	0.6 U
N-PROPYLBENZENE	57 U	23 U	23 U	5.7 U	57 U	0.57 U	0.57 U
O-XYLENE	42 U	17 U	240	4.2 U	42 U	0.42 U	0.42 U
SEC-BUTYLBENZENE	53 U	21 U	21 U	5.3 U	53 U	0.53 U	0.53 U
STYRENE	45 U	18 U	18 U	4.5 U	45 U	0.45 U	0.45 U
TERT-AMYL METHYL ETHER	43 U	17 U	17 U	4.3 U	43 U	0.43 U	0.43 U
TERT-BUTYLBENZENE	48 U	19 U	19 U	4.8 U	48 U	0.48 U	0.48 U
TERTIARY-BUTYL ALCOHOL	720 U	290 U	290 U	72 U	720 U	7.2 UJ	7.2 UJ
TETRACHLOROETHENE	44 U	18 U	18 U	4.4 U	44 U	0.44 U	0.44 U
TOLUENE	54 J	18 U	180	4.4 U	120	0.44 U	0.44 U
TOTAL XYLENES	42 U	17 U	2400	4.2 U	42 U	0.42 U	0.42 U
TRANS-1,2-DICHLOROETHENE	51 U	20 U	20 U	5.1 U	51 U	0.51 U	0.51 U
TRANS-1,3-DICHLOROPROPENE	67 U	27 U	27 U	6.7 U	67 U	0.67 U	0.67 U
TRICHLOROETHENE	4000	1800	18 U	61	1400	0.44 U	0.44 U
TRICHLORODIFLUOROMETHANE	45 U	18 U	18 U	4.5 U	45 U	0.45 U	0.45 U
VINYL ACETATE	61 UJ	24 UJ	24 UJ	6.1 U	61 U	0.61 UJ	0.61 U
VINYL CHLORIDE	78 J	550	18 U	110	6800	1	0.45 U
SEMI-VOLATILES (UG/L)							
1,4-DIOXANE	36 J	100 J	5.8 J	0.37 UJ	8.3	2.2 J	0.36 U
METALS (UG/L)							
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	6.2	0.75 U	1.1 J	3.8 J	5	0.75 U	1.7 J
BERYLLIUM	0.68 J	3.2	0.62 U	0.62 U	0.62 U	0.62 U	0.62 J
CADMIUM	0.21 J	6.6	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
CHROMIUM	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
COPPER	13	17	1.7 U	4.8	1.7 U	1.7 U	1.7 U
LEAD	5	4	0.45 U	0.71 J	0.45 U	0.82 J	0.45 U
MERCURY	0.13 U	0.13 U	0.13 U	0.49	0.13 U	0.13 U	0.13 U
NICKEL	54	110	1.5 U	1.5 J	2.9	1.5 U	5.5
SELENIUM	0.89 U	1.9 J	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.58 J	0.2 U	0.2 U	0.2 U
ZINC	170	360	15 U	17 J	15 U	30	24
METALS FILTERED (UG/L)							
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	6.3	1.2 J	0.9 J	3.9 J	4.1 J	0.75 U	1.5 J
BERYLLIUM	0.62 U	3	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
CADMIUM	0.2 U	6	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
CHROMIUM	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
COPPER	1.7 U	22	1.7 U	2.3	1.7 U	1.7 U	1.7 U
LEAD	0.45 U	7.5	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.13 U	0.13 U	0.13 U	0.17 J	0.13 U	0.13 U	0.13 U
NICKEL	58	100	1.5 U	1.6 J	2.2	1.5 U	5.5
SELENIUM	0.89 U	2 J	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
ZINC	160	330	15 U	16 J	15 U	15 U	19 J
MISCELLANEOUS (UG/L)							
HEXAVALENT CHROMIUM	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/L)							
TPH (C6-C10)	--	--	5200	--	4200	49 U	49 U
TPH (C10-C28)	--	--	920	--	1100	310 J	380 J
RADIONUCLIDES (PCI/L)							
RADIUM-228	--	--	--	--	--	--	--
TOTAL ALPHA RADIUM	--	--	--	--	--	--	--

LOCATION	MSA-MW-14D	MSA-MW-14I	MSA-MW-15D	MSA-MW-16D	MSA-MW-16I	MSA-MW-16S	MSA-MW-17I
SAMPLE ID	MSA-MW-14D-052622	MSA-MW-14I-052622	MSA-MW-15D-052622	MSA-MW-16D-052522	MSA-MW-16I-052522	MSA-MW-16S-052522	MSA-MW-17I-061022
SAMPLE DATE	20220526	20220526	20220526	20220525	20220525	20220525	20220609
VOLATILES (UG/L)							
1,1,1,2-TETRACHLOROETHANE	0.43 U	22 U	0.43 U	0.43 U	17 U	0.86 U	17 U
1,1,1-TRICHLOROETHANE	0.48 U	24 U	0.48 U	0.48 U	19 U	0.96 U	19 U
1,1,2-TETRACHLOROETHANE	0.6 U	30 U	0.6 U	0.6 UJ	24 UJ	1.2 UJ	24 U
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	21 U	0.41 U	0.41 U	16 U	0.82 U	16 U
1,1-DICHLOROETHANE	0.47 U	24 U	0.47 U	0.47 U	19 U	0.94 U	19 U
1,1-DICHLOROETHENE	0.49 U	25 U	0.49 U	0.49 U	20 U	0.98 U	20 U
1,1-DICHLOROPROPENE	0.36 U	18 U	0.36 U	0.36 U	14 U	0.72 U	14 U
1,2,3-TRICHLOROBENZENE	0.54 UJ	27 UJ	0.54 UJ	0.54 U	22 U	1.1 U	22 UJ
1,2,3-TRICHLOROPROPANE	0.52 U	26 U	0.52 U	0.52 U	21 U	1 U	21 U
1,2,3-TRIMETHYLBENZENE	0.31 U	16 U	0.31 U	0.31 U	12 U	0.62 U	12 U
1,2,4-TRICHLOROBENZENE	0.77 UJ	39 UJ	0.77 UJ	0.77 U	31 U	1.5 U	31 U
1,2,4-TRIMETHYLBENZENE	0.52 U	26 U	0.52 U	0.52 U	21 U	1 U	21 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 UJ	46 UJ	0.91 UJ	0.91 UJ	36 UJ	1.8 UJ	36 U
1,2-DIBROMOETHANE	0.41 U	21 U	0.41 U	0.41 U	16 U	0.82 U	16 U
1,2-DICHLOROBENZENE	0.48 U	24 U	0.48 U	0.48 U	19 U	0.94 U	19 U
1,2-DICHLOROETHANE	0.21 U	11 U	0.21 U	0.21 U	8.4 U	0.42 U	8.4 U
1,2-DICHLOROPROPANE	0.47 U	24 U	0.47 U	0.47 U	19 U	0.94 U	19 U
1,3-DICHLOROBENZENE	0.45 U	23 U	0.45 U	0.45 U	18 U	0.9 U	18 U
1,3-DICHLOROPROPANE	0.21 U	11 U	0.21 U	0.21 U	8.4 U	0.42 U	8.4 U
1,4-DICHLOROBENZENE	0.41 U	21 U	0.41 U	0.41 U	16 U	0.82 U	16 U
2,2-DICHLOROPROPANE	0.78 U	39 U	0.78 U	0.78 UJ	31 UJ	1.6 UJ	31 U
2-BUTANONE	1.2 U	58 U	1.2 U	1.2 UJ	46 UJ	2.3 UJ	46 U
2-CHLOROETHYL VINYL ETHER	1.5 UR	77 UR	1.5 UR	1.5 UR	61 UR	3.1 UR	61 UR
2-CHLOROTOLUENE	0.57 U	29 U	0.57 U	0.57 U	23 UJ	1.1 UJ	23 U
2-HEXANONE	1.1 U	56 U	1.1 U	1.1 UJ	44 UJ	2.2 UJ	44 U
4-CHLOROTOLUENE	0.43 U	22 U	0.43 U	0.43 U	17 U	0.86 U	17 U
4-ISOPROPYLTOLUENE	0.56 U	28 U	0.56 U	0.56 U	22 U	1.1 U	22 U
4-METHYL-2-PENTANONE	0.99 U	50 U	0.99 U	0.99 UJ	40 UJ	2 UJ	40 U
ACETONE	5.4 U	270 U	5.4 U	5.4 UJ	220 UJ	11 UJ	220 U
ACROLEIN	--	--	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--	--	--
BENZENE	0.42 U	26 U	0.42 U	0.42 U	17 U	0.86 U	17 U
BROMOBENZENE	0.5 U	25 U	0.5 U	0.5 U	20 U	1 U	20 U
BROMOCHLOROMETHANE	0.54 U	27 U	0.54 U	0.54 U	22 U	1.1 U	22 U
BROMODICHLOROMETHANE	0.17 U	8.5 U	0.17 U	0.17 U	6.8 U	0.34 U	6.8 U
BROMOFORM	0.76 UJ	38 UJ	0.76 UJ	0.76 U	30 U	1.5 U	30 UJ
BROMOMETHANE	0.42 UJ	21 UJ	0.42 UJ	0.42 U	17 U	0.84 U	17 UJ
CARBON DISULFIDE	0.59 U	30 U	0.59 U	0.59 U	24 U	1.2 U	24 U
CARBON TETRACHLORIDE	0.26 U	13 U	0.26 U	0.26 U	10 U	0.52 U	10 U
CHLOROBENZENE	0.38 U	19 U	0.38 U	0.38 U	15 U	0.76 U	15 U
CHLORODIBROMOMETHANE	0.39 U	20 U	0.39 U	0.39 U	16 U	0.78 U	16 UJ
CHLORODIFLUOROMETHANE	1 UJ	50 UJ	1 UJ	1 UJ	40 UJ	2 UJ	40 UJ
CHLOROETHANE	0.83 U	42 U	0.83 U	0.83 UJ	33 UJ	1.7 UJ	33 U
CHLOROFORM	0.47 U	24 U	0.47 U	0.47 U	19 U	0.94 U	19 U
CHLOROMETHANE	0.63 U	32 U	0.63 U	0.63 UJ	25 UJ	1.3 UJ	25 U
CIS-1,2-DICHLOROETHENE	0.46 U	75	0.46 U	0.46 U	480	22	270
CIS-1,3-DICHLOROPROPENE	0.61 U	31 U	0.61 U	0.61 UJ	24 UJ	1.2 UJ	24 U
DIBROMOMETHANE	0.4 U	20 U	0.4 U	0.4 U	16 U	0.8 U	16 U
DICHLORODIFLUOROMETHANE	0.35 U	18 U	0.35 U	0.35 U	14 U	0.7 U	14 U
DIISOPROPYL ETHER	0.17 U	8.5 U	0.17 U	0.17 U	6.8 U	0.34 U	6.8 U
ETHYL TERT-BUTYL ETHER	0.4 U	20 U	0.4 U	0.4 U	16 U	0.8 U	16 U
ETHYLBENZENE	0.42 U	21 U	0.42 U	0.42 U	17 U	0.84 U	17 U
HEXACHLOROBUTADIENE	0.83 UJ	42 UJ	0.83 UJ	0.83 U	33 U	1.7 U	33 U
ISOPROPYLBENZENE	0.49 U	25 U	0.49 U	0.49 U	20 U	0.98 U	20 UJ
M+P-XYLENES	0.42 U	21 U	0.42 U	0.42 U	17 U	0.84 U	17 U
METHYL TERT-BUTYL ETHER	0.47 U	24 U	0.47 U	0.47 U	19 U	0.94 U	19 U
METHYLENE CHLORIDE	2.6 U	130 U	2.6 U	2.6 U	100 U	5.2 U	100 U
NAPHTHALENE	0.8 U	40 U	0.8 U	0.8 U	32 U	1.6 U	32 U
N-BUTYLBENZENE	0.6 U	30 U	0.6 U	0.6 UJ	24 UJ	1.2 UJ	24 UJ
N-PROPYLBENZENE	0.57 U	29 U	0.57 U	0.57 U	23 U	1.1 U	23 U
O-XYLENE	0.42 U	21 U	0.42 U	0.42 U	17 U	0.84 U	17 U
SEC-BUTYLBENZENE	0.53 U	27 U	0.53 U	0.53 U	21 U	1.1 U	21 U
STYRENE	0.45 U	23 U	0.45 U	0.45 U	18 U	0.9 U	18 U
TERT-AMYL METHYL ETHER	0.43 U	22 U	0.43 U	0.43 U	17 U	0.86 U	17 U
TERT-BUTYLBENZENE	0.48 U	24 U	0.48 U	0.48 U	19 U	0.96 U	19 U
TERTIARY-BUTYL ALCOHOL	7.2 U	360 U	7.2 U	7.2 UJ	290 UJ	14 UJ	290 U
TETRACHLOROETHENE	0.44 U	22 U	0.44 U	0.44 U	18 U	0.88 U	18 U
TOLUENE	0.44 U	22 U	0.44 U	0.44 U	18 U	0.88 U	18 U
TOTAL XYLENES	0.42 U	21 U	0.42 U	0.42 U	17 U	0.84 U	17 U
TRANS-1,2-DICHLOROETHENE	0.51 U	26 U	0.51 U	0.51 U	20 U	1 U	20 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	34 U	0.67 U	0.67 UJ	27 UJ	1.3 UJ	27 U
TRICHLOROETHENE	0.44 U	22 U	0.44 U	0.44 U	2500 U	0.88 U	1600
TRICHLORODIFLUOROMETHANE	0.45 U	23 U	0.45 U	0.45 U	18 U	0.9 U	18 U
VINYL ACETATE	0.61 U	31 U	0.61 U	0.61 UJ	24 UJ	1.2 UJ	24 UJ
VINYL CHLORIDE	0.45 U	1400	0.45 U	0.45 U	33 U	83	18 U
SEMI-VOLATILES (UG/L)							
1,4-DIOXANE	0.37 U	15	0.37 U	0.37 U	0.37 U	130 U	0.39 U
METALS (UG/L)							
ANTIMONY	--	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	--	19	0.75 U	0.75 U	6.5	0.78 U	2.5 U
BERYLLIUM	--	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
CADMIUM	--	0.2 U	0.2 U	0.2 U	0.31 U	0.2 U	0.2 U
CHROMIUM	--	2.5 U	2.5 U	2.5 U	2.5 U	2.9 U	2.5 U
COPPER	--	1.7 U	3.4	4.7	3.2	1.7 U	1.7 U
LEAD	--	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	--	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
NICKEL	--	1.5 U	9.4	11	53	28	35
SELENIUM	--	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	--	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
ZINC	--	15 U	15 U	19 U	87	23	72
METALS FILTERED (UG/L)							
ANTIMONY	--	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	--	19	0.75 U	0.75 U	4 U	0.75 U	1.6 U
BERYLLIUM	--	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
CADMIUM	--	0.2 U	0.2 U	0.2 U	0.29 U	0.2 U	0.2 U
CHROMIUM	--	2.5 U	2.5 U	2.5 U	2.5 U	2.7 U	2.5 U
COPPER	--	1.7 U	3.3	5.3	1.8 U	1.7 U	1.7 U
LEAD	--	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	--	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
NICKEL	--	1.5 U	9.7	11	50	25	30
SELENIUM	--	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	--	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
ZINC	--	15 U	15 U	17 U	81	15 U	65
MISCELLANEOUS (UG/L)							
HEXAVALENT CHROMIUM	0.065 U	--	0.44	0.3	--	--	--
PETROLEUM HYDROCARBONS (UG/L)							
TPH (C6-C10)	--	--	--	--	--	54 U	--
TPH (C10-C28)	--	--	--	--	--	230 U	--
RADIONUCLIDES (PCI/L)							
RADIUM-228	--	--	--	0.906	--	0.667	--
TOTAL ALPHA RADIUM	--	--	--	0.443 U	--	0.67	--

LOCATION	MSA-MW-175	MSA-MW-181	MSA-MW-185	MSA-MW-19D	MSA-MW-20D	MSA-MW-20I	MSA-MW-20S
SAMPLE ID	MSA-MW-175-061022	MSA-MW-181-051822	MSA-MW-185-051822	MSA-MW-19D-060722	MSA-MW-20D-051322	MSA-MW-20I-051322	MSA-MW-20S-051322
SAMPLE DATE	20220610	20220518	20220518	20220607	20220513	20220513	20220513
VOLATILES (UG/L)							
1,1,1,2-TETRACHLOROETHANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
1,1,1-TRICHLOROETHANE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
1,1,2,2-TETRACHLOROETHANE	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,1-DICHLOROETHENE	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,1-DICHLOROPROPENE	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
1,2,3-TRICHLOROBENZENE	0.54 UJ	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
1,2,3-TRIMETHYLBENZENE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,2,4-TRICHLOROBENZENE	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
1,2,4-TRIMETHYLBENZENE	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,2-DICHLOROBENZENE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,3-DICHLOROBENZENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
2,2-DICHLOROPROPANE	0.78 U	0.78 U	0.78 U	0.78 UJ	0.78 U	0.78 U	0.78 U
2-BUTANONE	1.2 U	1.2 UJ	1.2 UJ	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	1.5 UR	1.5 UR	1.5 UR	1.5 UR	1.5 UR	1.5 UR	1.5 UR
2-CHLOROTOLUENE	0.57 U	0.57 UJ	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-HEXANONE	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
4-CHLOROTOLUENE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
4-ISOPROPYLTOLUENE	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U
4-METHYL-2-PENTANONE	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
ACROLEIN	--	--	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--	--	--
BENZENE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
BROMOBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOCHLOROMETHANE	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 UJ	0.42 UJ	0.42 UJ	0.42 UJ	0.42 UJ	0.42 U	0.42 U
CARBON DISULFIDE	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.38 U	0.42 J	0.38 U	0.38 U	0.38 U	0.38 U	2.9
CHLORODIBROMOMETHANE	0.39 UJ	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 UJ	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
CHLOROMETHANE	0.63 U	0.63 UJ	0.63 UJ	0.63 U	0.63 U	0.63 U	0.63 U
CIS-1,2-DICHLOROETHENE	3.6	3.6	2.6	0.46 U	2.9	0.5 J	18
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
DICHLORODIFLUOROMETHANE	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
ETHYLBENZENE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
HEXACHLOROBUTADIENE	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
ISOPROPYLBENZENE	0.49 UJ	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
M+P-XYLENES	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
METHYL TERT-BUTYL ETHER	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
NAPHTHALENE	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
N-BUTYLBENZENE	0.6 UJ	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
N-PROPYLBENZENE	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
O-XYLENE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
SEC-BUTYLBENZENE	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
STYRENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
TERT-AMYL METHYL ETHER	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
TERT-BUTYLBENZENE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
TERTIARY-BUTYL ALCOHOL	7.2 U	7.2 UJ	7.2 UJ	7.2 UJ	7.2 UJ	7.2 UJ	7.2 UJ
TETRACHLOROETHENE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
TOLUENE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
TOTAL XYLENES	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
TRANS-1,2-DICHLOROETHENE	1.6	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.59 J
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	5.4	2.2	0.44 U	24	4.8	0.44 U	2.5
TRICHLORODIFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 UJ	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.61 UJ	0.61 UJ	0.61 UJ	0.61 U	0.61 UJ	0.61 UJ	0.61 UJ
VINYL CHLORIDE	0.45 U	3.4	0.8 J	0.45 U	0.56 J	0.45 UJ	5 J
SEMI-VOLATILES (UG/L)							
1,4-DIOXANE	0.39 U	0.37 UJ	1.2 J	0.36 U	0.37 UJ	0.37 UJ	1.3 J
METALS (UG/L)							
ANTIMONY	0.57 U	0.57 U	--	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	3.4 J	0.87 J	--	0.75 U	0.75 U	1 J	0.83 J
BERYLLIUM	0.62 U	0.62 U	--	0.62 J	0.62 U	0.62 U	0.62 U
CADMIUM	0.2 U	2.3	--	0.2 U	1	0.2 U	0.2 U
CHROMIUM	2.5 U	2.5 U	--	5.8	2.5 U	2.5 U	2.5 U
COPPER	1.7 J	--	--	1.7 U	3.1	3.3	4.9
LEAD	0.54 J	0.71 J	--	0.45 U	0.45 U	0.52 J	0.85 J
MERCURY	0.13 U	0.13 J	--	0.13 U	1.7	0.13 U	0.13 U
NICKEL	43	1.7 J	--	11	40	1.5 U	1.5 U
SELENIUM	0.89 U	0.89 U	--	0.89 U	0.93 J	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	--	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	--	0.42 J	0.2 U	0.2 U	0.2 U
ZINC	23	15 U	--	15 U	69	15 U	15 U
METALS FILTERED (UG/L)							
ANTIMONY	0.57 U	0.57 U	--	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	3.1 J	0.75 U	--	0.75 U	0.75 U	0.75 U	0.75 U
BERYLLIUM	0.62 U	0.62 U	--	0.93 J	0.62 U	0.62 U	0.62 U
CADMIUM	0.2 U	2.1	--	0.2 J	0.93 J	0.2 U	0.2 U
CHROMIUM	2.5 U	2.5 U	--	5.5	2.5 U	2.5 U	2.5 U
COPPER	1.7 U	1.7 U	--	1.7 U	2.6	2.4	4
LEAD	0.45 U	0.45 U	--	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.13 U	0.13 J	--	0.13 U	0.13 U	0.13 U	0.13 U
NICKEL	42	1.8 J	--	12	40	1.5 U	1.5 U
SELENIUM	0.89 U	0.89 U	--	0.9 J	0.89 J	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	--	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	--	0.84 J	0.2 U	0.2 U	0.2 U
ZINC	17 J	15 U	--	15 U	68	15 U	15 U
MISCELLANEOUS (UG/L)							
HEXAVALENT CHROMIUM	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/L)							
TPH (C6-C10)	49 U	--	49 U	--	--	--	49 U
TPH (C10-C28)	230 U	--	230 U	--	--	--	220 U
RADIONUCLIDES (PCI/L)							
RADIUM-228	--	--	--	--	--	--	--
TOTAL ALPHA RADIUM	--	--	--	--	--	--	--

LOCATION	MSA-MW-255	MSA-MW-27D	MSA-MW-29D	MSA-MW-29D	MSA-MW-30D	MSA-MW-30I	MSA-MW-31D
SAMPLE ID	MSA-MW-255-060622	MSA-MW-27D-051722	MSA-MW-29D-061522	MSA-MW-29D-061622	MSA-MW-30D-061522	MSA-MW-30I-060822	MSA-MW-31D-061522
SAMPLE DATE	20220606	20220517	20220614	20220616	20220615	20220607	20220615
VOLATILES (UG/L)							
1,1,1,2-TETRACHLOROETHANE	0.43 U	0.43 U	0.43 U	--	0.43 U	4.3 U	--
1,1,1-TRICHLOROETHANE	0.48 U	0.48 U	0.48 U	--	0.48 U	4.8 U	--
1,1,2-TETRACHLOROETHANE	0.6 U	0.6 U	0.6 U	--	0.6 U	6 U	--
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	--	0.41 U	4.1 U	--
1,1-DICHLOROETHANE	0.47 U	0.47 U	0.47 U	--	0.47 U	4.7 U	--
1,1-DICHLOROETHENE	0.49 U	0.49 U	0.49 U	--	0.49 U	4.9 U	--
1,1-DICHLOROPROPENE	0.36 U	0.36 U	0.36 U	--	0.36 U	3.6 U	--
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 U	0.54 U	--	0.54 U	5.4 U	--
1,2,3-TRICHLOROPROPANE	0.52 U	0.52 U	0.52 U	--	0.52 U	5.2 U	--
1,2,3-TRIMETHYLBENZENE	0.31 U	0.31 U	0.31 U	--	0.31 U	3.1 U	--
1,2,4-TRICHLOROBENZENE	0.77 U	0.77 U	0.77 U	--	0.77 U	7.7 U	--
1,2,4-TRIMETHYLBENZENE	0.52 U	0.52 U	0.52 U	--	0.52 U	5.2 U	--
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	--	0.91 U	9.1 U	--
1,2-DIBROMOETHANE	0.41 U	0.41 U	0.41 U	--	0.41 U	4.1 U	--
1,2-DICHLOROBENZENE	0.48 U	0.48 U	0.48 U	--	0.48 U	4.8 U	--
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	--	0.21 U	2.1 U	--
1,2-DICHLOROPROPANE	0.47 U	0.47 U	0.47 U	--	0.47 U	4.7 U	--
1,3-DICHLOROBENZENE	0.45 U	0.45 U	0.45 U	--	0.45 U	4.5 U	--
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	--	0.21 U	2.1 U	--
1,4-DICHLOROBENZENE	0.41 U	0.41 U	0.41 U	--	0.41 U	4.1 U	--
2,2-DICHLOROPROPANE	0.78 UJ	0.78 U	0.78 U	--	0.78 U	7.8 UJ	--
2-BUTANONE	1.2 U	1.2 U	1.2 U	--	1.2 U	12 U	--
2-CHLOROETHYL VINYL ETHER	1.5 UR	1.5 UR	1.5 UR	--	1.5 UR	15 UR	--
2-CHLOROTOLUENE	0.57 U	0.57 U	0.57 U	--	0.57 U	5.7 U	--
2-HEXANONE	1.1 U	1.1 U	1.1 U	--	1.1 U	11 U	--
4-CHLOROTOLUENE	0.43 U	0.43 U	0.43 U	--	0.43 U	4.3 U	--
4-ISOPROPYLTOLUENE	0.56 U	0.56 U	0.56 U	--	0.56 U	5.6 U	--
4-METHYL-2-PENTANONE	0.99 U	0.99 U	0.99 U	--	0.99 U	9.9 U	--
ACETONE	5.4 U	5.4 U	5.4 U	--	5.4 U	54 U	--
ACROLEIN	--	--	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--	--	--
BENZENE	0.42 U	0.42 U	0.42 U	--	0.42 U	4.2 U	--
BROMOBENZENE	0.5 U	0.5 U	0.5 U	--	0.5 U	5 U	--
BROMOCHLOROMETHANE	0.54 U	0.54 U	0.54 U	--	0.54 U	5.4 U	--
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	--	0.17 U	1.7 U	--
BROMOFORM	0.76 U	0.76 U	0.76 U	--	0.76 U	7.6 U	--
BROMOMETHANE	0.42 UJ	0.42 UJ	0.42 UJ	--	0.42 UJ	4.2 UJ	--
CARBON DISULFIDE	0.59 U	0.59 U	0.59 U	--	0.59 U	5.9 UJ	--
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	--	0.26 U	62	--
CHLOROBENZENE	0.38 U	0.38 U	0.38 U	--	0.38 U	3.8 U	--
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	--	0.39 U	3.9 U	--
CHLORODIFLUOROMETHANE	1 UJ	1 UJ	1 UJ	--	1 UJ	10 UJ	--
CHLOROETHANE	0.83 UJ	0.83 U	0.83 U	--	0.83 U	8.3 UJ	--
CHLOROFORM	0.47 U	0.47 U	0.47 U	--	0.47 U	5.7 U	--
CHLOROMETHANE	0.63 U	0.63 U	0.63 U	--	0.63 U	6.3 U	--
CIS-1,2-DICHLOROETHENE	7.5	0.46 U	0.46 U	--	0.46 U	4.6 U	--
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	--	0.61 U	6.1 U	--
DIBROMOMETHANE	0.4 U	0.4 U	0.4 U	--	0.4 U	4 U	--
DICHLORODIFLUOROMETHANE	0.35 U	0.35 UJ	0.35 U	--	0.35 U	3.5 U	--
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	--	0.17 U	1.7 U	--
ETHYL TERT-BUTYL ETHER	0.4 U	0.4 U	0.4 U	--	0.4 U	4 U	--
ETHYLBENZENE	0.42 U	0.42 U	0.42 U	--	0.42 U	4.2 U	--
HEXACHLOROBUTADIENE	0.83 U	0.83 U	0.83 U	--	0.83 U	8.3 U	--
ISOPROPYLBENZENE	0.49 U	0.49 U	0.49 U	--	0.49 U	4.9 U	--
M+P-XYLENES	0.42 U	0.42 U	0.42 U	--	0.42 U	4.2 U	--
METHYL TERT-BUTYL ETHER	0.47 U	0.47 U	0.47 U	--	0.47 U	4.7 U	--
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	--	2.6 U	26 U	--
NAPHTHALENE	0.8 U	0.8 U	0.8 U	--	0.8 U	8 U	--
N-BUTYLBENZENE	0.6 U	0.6 U	0.6 U	--	0.6 U	6 U	--
N-PROPYLBENZENE	0.57 U	0.57 U	0.57 U	--	0.57 U	5.7 U	--
O-XYLENE	0.42 U	0.42 U	0.42 U	--	0.42 U	4.2 U	--
SEC-BUTYLBENZENE	0.53 U	0.53 U	0.53 U	--	0.53 U	5.3 U	--
STYRENE	0.45 U	0.45 U	0.45 U	--	0.45 U	4.5 U	--
TERT-AMYL METHYL ETHER	0.43 U	0.43 U	0.43 U	--	0.43 U	4.3 U	--
TERT-BUTYLBENZENE	0.48 U	0.48 U	0.48 U	--	0.48 U	4.8 U	--
TERTIARY-BUTYL ALCOHOL	7.2 UJ	7.2 UJ	7.2 UJ	--	7.2 UJ	72 U	--
TETRACHLOROETHENE	0.44 U	0.44 U	0.44 U	--	0.44 U	4.4 U	--
TOLUENE	0.44 U	0.44 U	0.44 U	--	0.44 U	4.4 U	--
TOTAL XYLENES	0.42 U	0.42 U	0.42 U	--	0.42 U	4.2 U	--
TRANS-1,2-DICHLOROETHENE	0.51 U	0.51 U	0.51 U	--	0.51 U	5.1 U	--
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	--	0.67 U	6.7 U	--
TRICHLOROETHENE	0.44 U	0.44 U	0.44 U	--	0.44 U	560	--
TRICHLORODIFLUOROMETHANE	0.45 UJ	0.45 U	0.45 U	--	0.45 U	4.5 UJ	--
VINYL ACETATE	0.61 U	0.61 UJ	0.61 U	--	0.61 U	6.1 U	--
VINYL CHLORIDE	20	0.45 U	0.45 U	--	0.45 U	4.5 U	--
SEMI-VOLATILES (UG/L)							
1,4-DIOXANE	0.39 U	0.39 UJ	0.37 U	--	0.37 U	0.39 U	--
METALS (UG/L)							
ANTIMONY	0.57 U	0.57 U	0.57 U	--	--	0.57 U	0.57 U
ARSENIC	4.9 J	0.75 U	0.75 U	--	--	0.75 U	0.75 U
BERYLLIUM	0.62 U	0.62 U	0.62 U	--	--	0.62 UJ	0.62 U
CADMIUM	0.2 U	0.2 U	0.2 U	--	--	0.35 J	0.2 U
CHROMIUM	2.8 J	2.5 U	2.5 U	--	--	2.5 U	3 J
COPPER	2.9	3.9	1.7 U	--	--	5.3 J	2.3
LEAD	1.3	0.45 U	0.45 U	--	--	0.45 U	0.54 J
MERCURY	0.13 U	0.13 U	0.13 U	--	--	0.13 U	0.13 U
NICKEL	15	6.5	1.7 J	--	--	1.7 J	1.5 U
SELENIUM	0.89 U	0.89 U	0.89 U	--	--	0.89 UJ	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	--	--	0.053 UJ	0.053 U
THALLIUM	0.2 U	0.42 U	0.2 U	--	--	0.45 J	0.2 U
ZINC	15 U	29	19 J	--	--	420 J	310
METALS FILTERED (UG/L)							
ANTIMONY	0.57 U	0.57 U	0.57 U	--	--	0.57 U	0.57 U
ARSENIC	4.5 J	0.75 U	0.75 U	--	--	0.75 U	0.75 U
BERYLLIUM	0.62 U	0.62 U	0.62 UJ	--	--	0.62 UJ	0.62 UJ
CADMIUM	0.2 U	0.2 U	0.2 U	--	--	0.36 J	0.2 U
CHROMIUM	2.8 J	2.5 U	2.5 U	--	--	2.5 U	2.6 J
COPPER	3.1	3.3	1.7 U	--	--	5.3 J	1.7 U
LEAD	1.4	0.45 U	0.45 U	--	--	0.45 U	0.45 U
MERCURY	0.13 U	0.13 U	0.13 U	--	--	0.13 U	0.13 U
NICKEL	15	6.4	1.7 J	--	--	1.8 J	1.5 U
SELENIUM	0.89 U	0.89 U	0.89 U	--	--	0.89 UJ	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	--	--	0.053 UJ	0.053 U
THALLIUM	0.2 U	0.58 U	0.2 U	--	--	0.5 U	0.2 U
ZINC	15 U	20	32	--	--	410 J	95
MISCELLANEOUS (UG/L)							
HEXAVALENT CHROMIUM	--	--	0.35	--	0.099	--	0.05 U
PETROLEUM HYDROCARBONS (UG/L)							
TPH (C6-C10)	49 U	--	--	--	--	--	--
TPH (C10-C28)	240 U	--	--	--	--	--	--
RADIONUCLIDES (PCI/L)							
RADIUM-228	--	--	--	0.412 U	--	--	--
TOTAL ALPHA RADIUM	--	--	--	0.254 U	--	--	--

LOCATION	MSA-MW-375	MSA-MW-385	MSA-MW-401	MSA-MW-405	MSA-MW-411	MSA-MW-415	MSA-MW-421
SAMPLE ID	MSA-MW-375-060622	MSA-MW-385-060822	MSA-MW-401-052722	MSA-MW-405-052722	MSA-MW-411-060222	MSA-MW-415-060222	MSA-MW-421-060222
SAMPLE DATE	20220606	20220608	20220527	20220527	20220602	20220602	20220527
VOLATILES (UG/L)							
1,1,1,2-TETRACHLOROETHANE	--	--	8.6 U	17 U	17 U	17 U	17 U
1,1,1-TRICHLOROETHANE	--	--	9.6 U	19 U	19 U	19 U	19 U
1,1,2-TETRACHLOROETHANE	--	--	12 U	24 U	24 U	24 U	24 U
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	8.2 U	16 U	16 U	16 U	16 U
1,1-DICHLOROETHANE	--	--	9.4 U	19 U	19 U	19 U	19 U
1,1-DICHLOROETHENE	--	--	9.8 U	20 U	20 U	20 U	20 U
1,1-DICHLOROPROPENE	--	--	7.2 U	14 U	14 U	14 U	14 U
1,2,3-TRICHLOROBENZENE	--	--	11 UJ	22 UJ	22 UJ	22 UJ	22 UJ
1,2,3-TRICHLOROPROPANE	--	--	10 U	21 U	21 U	21 U	21 U
1,2,3-TRIMETHYLBENZENE	--	--	6.2 U	12 U	12 U	12 U	12 U
1,2,4-TRICHLOROBENZENE	--	--	15 U	31 U	31 U	31 U	31 U
1,2,4-TRIMETHYLBENZENE	--	--	10 U	21 U	21 U	21 U	21 U
1,2-DIBROMO-3-CHLOROPROPANE	--	--	18 U	36 U	36 U	36 U	36 U
1,2-DIBROMOETHANE	--	--	8.2 U	16 U	16 U	16 U	16 U
1,2-DICHLOROBENZENE	--	--	9.6 U	19 U	19 U	19 U	19 U
1,2-DICHLOROETHANE	--	--	4.2 U	8.4 U	22 J	53	8.4 U
1,2-DICHLOROPROPANE	--	--	9.4 U	19 U	19 U	19 U	19 U
1,3-DICHLOROBENZENE	--	--	9 U	18 U	18 U	18 U	18 U
1,3-DICHLOROPROPANE	--	--	4.2 U	8.4 U	8.4 U	8.4 U	8.4 U
1,4-DICHLOROBENZENE	--	--	8.2 U	16 U	26 J	16 U	16 U
2,2-DICHLOROPROPANE	--	--	16 U	31 U	31 U	31 U	31 U
2-BUTANONE	--	--	23 U	46 U	46 U	46 U	46 U
2-CHLOROETHYL VINYL ETHER	--	--	31 UR	61 UR	61 UR	61 UR	61 UR
2-CHLOROTOLUENE	--	--	11 U	23 U	23 U	23 U	23 U
2-HEXANONE	--	--	22 U	44 U	44 U	44 U	44 U
4-CHLOROTOLUENE	--	--	8.6 U	17 U	17 U	17 U	17 U
4-ISOPROPYLTOLUENE	--	--	11 UJ	22 U	22 U	22 U	22 U
4-METHYL-2-PENTANONE	--	--	20 U	40 U	40 U	40 U	40 U
ACETONE	--	--	110 U	220 U	220 U	220 U	220 U
ACROLEIN	--	--	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--	--	--
BENZENE	--	--	8.4 U	17 U	34 J	32 J	17 U
BROMOBENZENE	--	--	10 U	20 U	20 U	20 U	20 U
BROMOCHLOROMETHANE	--	--	11 U	22 U	22 U	22 U	22 U
BROMODICHLOROMETHANE	--	--	3.4 U	6.8 U	6.8 U	6.8 U	6.8 U
BROMOFORM	--	--	15 UJ	30 UJ	30 UJ	30 UJ	30 UJ
BROMOMETHANE	--	--	8.4 UJ	17 UJ	17 UJ	17 UJ	17 UJ
CARBON DISULFIDE	--	--	12 U	24 U	24 U	24 U	24 U
CARBON TETRACHLORIDE	--	--	5.2 U	10 U	10 U	10 U	10 U
CHLOROBENZENE	--	--	7.6 U	15 U	580	91	15 U
CHLORODIBROMOMETHANE	--	--	7.8 UJ	16 UJ	16 U	16 U	16 U
CHLORODIFLUOROMETHANE	--	--	20 UJ	40 UJ	40 UJ	40 UJ	40 UJ
CHLOROETHANE	--	--	17 U	33 U	33 U	33 U	33 U
CHLOROFORM	--	--	9.4 U	19 U	19 U	19 U	19 U
CHLOROMETHANE	--	--	13 U	25 U	25 U	25 U	25 U
CIS-1,2-DICHLOROETHENE	--	--	750	1800	1200	1500	990
CIS-1,3-DICHLOROPROPENE	--	--	12 U	24 U	24 U	24 U	24 U
DIBROMOMETHANE	--	--	8 U	16 U	16 U	16 U	16 U
DICHLORODIFLUOROMETHANE	--	--	7 U	14 U	14 U	14 U	14 U
DIISOPROPYL ETHER	--	--	3.4 U	6.8 U	6.8 U	6.8 U	6.8 U
ETHYL TERT-BUTYL ETHER	--	--	8 U	16 U	16 U	16 U	16 U
ETHYLBENZENE	--	--	8.4 U	17 U	17 U	17 U	17 U
HEXACHLOROBUTADIENE	--	--	17 U	33 U	33 U	33 U	33 U
ISOPROPYLBENZENE	--	--	9.8 UJ	20 U	20 U	20 U	20 U
M+P-XYLENES	--	--	8.4 U	17 U	24 J	17 U	66 J
METHYL TERT-BUTYL ETHER	--	--	9.4 U	19 U	19 U	19 U	19 U
METHYLENE CHLORIDE	--	--	52 U	100 U	100 U	120 J	100 U
NAPHTHALENE	--	--	16 U	32 U	32 U	32 U	32 U
N-BUTYLBENZENE	--	--	12 UJ	24 U	24 U	24 U	24 U
N-PROPYLBENZENE	--	--	11 U	23 U	23 U	23 U	23 U
O-XYLENE	--	--	8.4 U	17 U	17 U	17 U	17 U
SEC-BUTYLBENZENE	--	--	11 U	21 U	21 U	21 U	21 U
STYRENE	--	--	9 U	18 U	18 U	18 U	18 U
TERT-AMYL METHYL ETHER	--	--	8.6 U	17 U	17 U	17 U	17 U
TERT-BUTYLBENZENE	--	--	9.6 UJ	19 U	19 U	19 U	19 U
TERTIARY-BUTYL ALCOHOL	--	--	140 U	290 U	290 U	290 U	290 U
TETRACHLOROETHENE	--	--	8.8 U	18 U	18 U	18 U	18 U
TOLUENE	--	--	8.8 U	18 U	18 U	18 U	18 U
TOTAL XYLENES	--	--	8.4 U	17 U	24 J	17 U	66 J
TRANS-1,2-DICHLOROETHENE	--	--	27	68	20 U	20 U	20 U
TRANS-1,3-DICHLOROPROPENE	--	--	13 U	27 U	27 U	27 U	27 U
TRICHLOROETHENE	--	--	93	86	460	2300	75
TRICHLORODIFLUOROMETHANE	--	--	9 U	18 U	18 U	18 U	18 U
VINYL ACETATE	--	--	12 U	24 U	24 U	24 U	24 U
VINYL CHLORIDE	--	--	36	52	920	1300	210
SEMI-VOLATILES (UG/L)							
1,4-DIOXANE	--	--	5	2.5	140	0.39 UJ	22
METALS (UG/L)							
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	1.1 J	11	5.1	3.1 J	3.4 J	0.75 U	2.9 J
BERYLLIUM	0.62 U	0.62 UJ	0.66 J	0.62 U	0.62 U	0.62 U	0.62 U
CADMIUM	0.2 U	0.2 U	0.22 J	0.2 U	3.7	67	0.2 U
CHROMIUM	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
COPPER	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 U	2.7	2.9
LEAD	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	1.1
MERCURY	1.4	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
NICKEL	2	5.9 J	1.5 J	1.7 J	6.2	89	2.7
SELENIUM	0.89 U	0.89 UJ	0.98 J	0.89 U	0.89 U	1.1 J	0.89 U
SILVER	0.053 U	0.053 UJ	0.053 U	0.053 U	0.053 U	0.053 U	0.08 J
THALLIUM	0.2 U	0.23 U	0.38 J	0.74 J	0.2 U	0.2 U	0.36 J
ZINC	17 J	19 J	15 U	15 U	42	720	31
METALS FILTERED (UG/L)							
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	10	4.5 J	2.8 J	3.9 J	0.75 U	3.1 J
BERYLLIUM	0.62 U	0.62 UJ	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
CADMIUM	0.2 U	0.2 U	0.2 U	0.2 U	3.9	67	0.2 U
CHROMIUM	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
COPPER	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 U	3	1.7 U
LEAD	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.17 J	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
NICKEL	1.9 J	5.8 J	1.6 J	1.8 J	6.9	94	3
SELENIUM	0.89 U	0.89 UJ	0.89 U	0.89 U	0.89 U	1.3 J	0.89 U
SILVER	0.053 U	0.053 UJ	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.56 J	0.37 J	0.2 U	0.2 U	0.42 J
ZINC	17 J	16 J	15 U	15 U	43	720	15 U
MISCELLANEOUS (UG/L)							
HEXAVALENT CHROMIUM	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/L)							
TPH (C6-C10)	49 U	--	--	1000	--	2300	--
TPH (C10-C28)	230 U	--	--	250 J	--	300 J	--
RADIONUCLIDES (PCI/L)							
RADIUM-228	--	--	--	--	--	--	--
TOTAL ALPHA RADIUM	--	--	--	--	--	--	--

LOCATION	MSA-MW-425	MSA-MW-435	MSA-MW-445	MSA-MW-455	MSA-MW-46D	MSA-MW-46I
SAMPLE ID	MSA-MW-425-060222	MSA-MW-435-061322	MSA-MW-445-052022	MSA-MW-455-060722	MSA-MW-46D-061322	MSA-MW-46I-061322
SAMPLE DATE	20220602	20220613	20220520	20220607	20220613	20220613
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	0.43 U	0.43 U	0.43 U	43 U	0.86 U	1.7 U
1,1,1-TRICHLOROETHANE	0.48 U	0.48 U	0.48 U	48 U	0.96 U	1.9 U
1,1,2,2-TETRACHLOROETHANE	0.6 U	0.6 U	0.6 U	60 U	1.2 U	2.4 U
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	41 U	0.82 U	1.6 U
1,1-DICHLOROETHANE	0.47 U	0.47 U	2	47 U	0.94 U	1.9 U
1,1-DICHLOROETHENE	0.49 U	0.49 U	0.49 U	49 U	0.98 U	2.8 J
1,1-DICHLOROPROPENE	0.36 U	0.36 U	0.36 U	36 U	0.72 U	1.4 U
1,2,3-TRICHLOROBENZENE	0.54 UJ	0.54 U	0.54 U	54 U	1.1 U	2.2 U
1,2,3-TRICHLOROPROPANE	0.52 U	0.52 U	0.52 U	52 U	1 U	2.1 U
1,2,3-TRIMETHYLBENZENE	6.1	0.31 U	0.31 UJ	31 U	0.62 U	1.2 U
1,2,4-TRICHLOROBENZENE	0.77 U	0.77 U	0.77 U	77 U	1.5 U	3.1 U
1,2,4-TRIMETHYLBENZENE	13	0.52 U	0.52 UJ	52 U	1 U	2.1 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 UJ	91 U	1.8 U	3.6 U
1,2-DIBROMOETHANE	0.41 U	0.41 U	0.41 U	41 U	0.82 U	1.6 U
1,2-DICHLOROBENZENE	0.48 U	0.48 U	0.48 U	48 U	0.96 U	1.9 U
1,2-DICHLOROETHANE	2	0.21 U	0.21 U	61 J	2.8	6.2
1,2-DICHLOROPROPANE	0.47 U	0.47 U	0.47 U	47 U	0.94 U	1.9 U
1,3-DICHLOROBENZENE	0.45 U	0.45 U	0.45 U	45 U	0.9 U	1.8 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	21 U	0.42 U	0.84 U
1,4-DICHLOROBENZENE	0.41 U	0.41 U	8	41 U	0.82 U	1.6 U
2,2-DICHLOROPROPANE	0.78 U	0.78 U	0.78 U	78 UJ	1.6 U	3.1 U
2-BUTANONE	1.2 J	1.2 U	1.2 U	120 U	2.3 U	4.6 U
2-CHLOROETHYL VINYL ETHER	1.5 UR	1.5 UR	1.5 UR	150 UR	3.1 UR	6.1 UR
2-CHLOROTOLUENE	0.57 U	0.57 UJ	0.57 U	57 U	1.1 U	2.3 U
2-HEXANONE	1.1 U	1.1 U	1.1 U	110 U	2.2 U	4.4 U
4-CHLOROTOLUENE	0.43 U	0.43 U	0.43 U	43 U	0.86 U	1.7 U
4-ISOPROPYLTOLUENE	0.57 J	0.56 U	0.56 UJ	56 U	1.1 U	2.2 U
4-METHYL-2-PENTANONE	0.99 U	0.99 U	0.99 U	99 U	2 U	4 U
ACETONE	11	5.4 U	5.4 U	540 U	11 U	22 U
ACROLEIN	--	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--	--
BENZENE	2.9	0.42 U	0.42 U	49 J	0.84 U	1.7 U
BROMOBENZENE	0.5 U	0.5 U	0.5 U	50 U	1 U	2 U
BROMOCHLOROMETHANE	0.54 U	0.54 U	0.54 U	54 U	1.1 U	2.2 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	17 U	0.34 U	0.68 U
BROMOFORM	0.76 UJ	0.76 U	0.76 UJ	76 U	1.5 U	3 U
BROMOMETHANE	0.42 UJ	0.42 U	0.42 UJ	42 UJ	0.84 U	1.7 U
CARBON DISULFIDE	0.59 U	0.59 U	0.59 U	59 UJ	1.2 U	2.4 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	26 U	0.52 U	1 U
CHLOROBENZENE	1.7	0.38 U	4.1	210	0.76 U	13
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	39 U	0.78 U	1.6 U
CHLORODIFLUOROMETHANE	1 UJ	1 UJ	1 UJ	100 UJ	2 UJ	4 UJ
CHLOROETHANE	0.83 U	0.83 U	0.83 UJ	83 UJ	1.7 U	3.3 U
CHLOROFORM	0.47 U	0.47 U	0.47 U	47 U	0.94 U	1.9 U
CHLOROMETHANE	0.63 U	0.63 U	0.63 U	63 U	1.3 U	2.5 U
CIS-1,2-DICHLOROETHENE	2	0.46 U	0.63 J	2100	53	110
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	61 U	1.2 U	2.4 U
DIBROMOMETHANE	0.4 U	0.4 U	0.4 U	40 U	0.8 U	1.6 U
DICHLORODIFLUOROMETHANE	0.35 U	0.35 U	0.35 U	35 U	0.7 U	1.4 U
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	17 U	0.34 U	0.68 U
ETHYL TERT-BUTYL ETHER	0.4 U	0.4 U	0.4 U	40 U	0.8 U	1.6 U
ETHYLBENZENE	48	0.42 U	0.42 U	42 U	0.84 U	1.7 U
HEXACHLOROBUTADIENE	0.83 U	0.83 U	0.83 UJ	83 U	1.7 U	3.3 U
ISOPROPYLBENZENE	1.1	0.49 U	0.49 U	49 U	0.98 U	2 U
M+P-XYLENES	740	0.42 U	1.1 J	42 U	0.84 U	1.7 U
METHYL TERT-BUTYL ETHER	0.47 U	0.47 U	0.47 U	47 U	0.94 U	1.9 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	260 U	5.2 U	10 U
NAPHTHALENE	0.8 U	0.8 U	120 J	80 U	1.6 U	3.2 U
N-BUTYLBENZENE	0.6 U	0.6 U	0.6 UJ	60 U	1.2 U	2.4 U
N-PROPYLBENZENE	0.76 J	0.57 U	0.57 U	57 U	1.1 U	2.3 U
O-XYLENE	110	0.42 U	0.51 J	42 U	1.1 J	1.7 U
SEC-BUTYLBENZENE	0.53 J	0.53 U	0.53 U	53 U	1.1 U	2.1 U
STYRENE	0.45 U	0.45 U	0.45 U	45 U	0.9 U	1.8 U
TERT-AMYL METHYL ETHER	0.43 U	0.43 U	0.43 U	43 U	0.86 U	1.7 U
TERT-BUTYLBENZENE	0.48 U	0.48 U	0.48 U	48 U	0.96 U	1.9 U
TERTIARY-BUTYL ALCOHOL	7.2 U	7.2 UJ	7.2 UJ	720 U	14 UJ	29 UJ
TETRACHLOROETHENE	0.44 U	0.44 U	0.44 U	44 U	0.88 U	1.8 U
TOLUENE	22	0.44 U	0.44 U	44 U	0.88 U	1.8 U
TOTAL XYLENES	850	0.42 U	1.6 J	42 U	1.1 J	1.7 U
TRANS-1,2-DICHLOROETHENE	0.51 U	0.51 U	0.51 U	51 U	1 U	2 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	67 U	1.3 U	2.7 U
TRICHLOROETHENE	0.44 U	0.44 U	0.44 U	2700	140	250
TRICHLORODIFLUOROMETHANE	0.45 U	0.45 U	0.45 UJ	45 UJ	0.9 U	1.8 U
VINYL ACETATE	0.61 U	0.61 U	0.61 U	61 U	1.2 U	2.4 U
VINYL CHLORIDE	1.6	0.45 U	0.54 J	1600	13	86
SEMI-VOLATILES (UG/L)						
1,4-DIOXANE	0.37 UJ	0.4 U	7.4 J	450	0.39 U	11
METALS (UG/L)						
ANTIMONY	0.65 J	--	0.57 U	0.83 J	0.57 U	0.57 U
ARSENIC	2.6 J	--	0.75 U	0.75 U	2.2 J	0.75 U
BERYLLIUM	0.62 U	--	0.62 U	0.62 U	0.62 U	0.62 U
CADMIUM	0.2 U	--	0.2 U	81	0.2 U	0.88 J
CHROMIUM	6.7	--	2.5 U	2.5 U	2.5 U	2.5 U
COPPER	4.1	--	1.7 U	3	1.7 U	1.7 U
LEAD	1.6	--	0.45 U	0.45 U	0.83 J	0.45 U
MERCURY	0.15 J	--	0.13 U	0.13 U	0.13 U	0.13 U
NICKEL	1.5 U	--	1.5 U	110	22	60
SELENIUM	0.89 U	--	0.89 U	2 J	0.89 U	0.89 U
SILVER	0.065 J	--	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.36 J	--	0.2 U	0.77 J	0.25 J	0.2 U
ZINC	42	--	28	830	41	190
METALS FILTERED (UG/L)						
ANTIMONY	0.57 U	--	0.57 U	0.61 J	0.57 U	0.57 U
ARSENIC	1.9 J	--	0.75 U	0.75 U	2.7 J	0.75 U
BERYLLIUM	0.62 U	--	0.62 U	0.62 U	0.62 U	0.62 U
CADMIUM	0.2 U	--	0.2 U	79	0.2 U	0.87 J
CHROMIUM	5.8	--	2.5 U	2.5 U	2.5 U	2.5 U
COPPER	1.7 U	--	1.7 U	3.2	1.7 U	1.7 U
LEAD	0.45 U	--	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.13 U	--	0.13 U	0.13 U	0.13 U	0.13 U
NICKEL	1.5 U	--	1.5 U	110	25	59
SELENIUM	0.89 U	--	0.89 U	1.9 J	0.89 U	0.89 U
SILVER	0.053 U	--	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	--	0.2 U	0.39 J	0.2 U	0.2 U
ZINC	15 U	--	15 U	830	48	180
MISCELLANEOUS (UG/L)						
HEXAVALENT CHROMIUM	--	--	--	--	0.005 U	0.03
PETROLEUM HYDROCARBONS (UG/L)						
TPH (C6-C10)	2500	49 U	49 U	2500	--	--
TPH (C10-C28)	390 J	250 J	510	360 J	--	--
RADIONUCLIDES (PCI/L)						
RADIUM-228	--	--	--	--	--	--
TOTAL ALPHA RADIUM	--	--	--	--	--	--

LOCATION	MSA-MW-465	MSA-MW-47D	MSA-MW-47I	MSA-MW-47S	MSA-MW-48D	MSA-MW-48I
SAMPLE ID	MSA-MW-465-061422	MSA-MW-47D-061422	MSA-MW-47I-061422	MSA-MW-47S-061422	MSA-MW-48D-052422	MSA-MW-48I-052422
SAMPLE DATE	20220614	20220614	20220614	20220614	20220524	20220524
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	0.43 U	4.3 U	1.7 U	0.43 U	8.6 U	0.43 U
1,1,1-TRICHLOROETHANE	0.48 U	4.8 U	1.9 U	0.48 U	10 J	0.48 U
1,1,2,2-TETRACHLOROETHANE	0.6 U	6 U	2.4 U	0.6 U	12 U	0.6 U
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	4.1 U	1.6 U	0.41 U	8.2 U	0.41 U
1,1-DICHLOROETHANE	0.47 U	4.7 U	1.9 U	0.47 U	9.4 U	0.47 U
1,1-DICHLOROETHENE	0.49 U	4.9 U	2 U	0.49 U	15 J	0.49 U
1,1-DICHLOROPROPENE	0.36 U	3.6 U	1.4 U	0.36 U	7.2 U	0.36 U
1,2,3-TRICHLOROBENZENE	0.54 U	5.4 UJ	2.2 U	0.54 U	11 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.52 U	5.2 U	2.1 U	0.52 U	10 U	0.52 U
1,2,3-TRIMETHYLBENZENE	0.31 U	3.1 U	1.2 U	0.31 U	6.2 U	0.31 U
1,2,4-TRICHLOROBENZENE	0.77 U	7.7 U	3.1 U	0.77 U	15 U	2.4
1,2,4-TRIMETHYLBENZENE	0.52 U	5.2 U	2.1 U	0.52 U	10 U	0.52 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	9.1 U	3.6 U	0.91 U	18 U	0.91 U
1,2-DIBROMOETHANE	0.41 U	4.1 U	1.6 U	0.41 U	8.2 U	0.41 U
1,2-DICHLOROBENZENE	0.48 U	4.8 U	1.9 U	0.48 U	9.6 U	2.2
1,2-DICHLOROETHANE	0.21 U	8.1 J	4.6	0.21 U	4.2 U	0.21 U
1,2-DICHLOROPROPANE	0.47 U	4.7 U	1.9 U	0.47 U	9.4 U	0.47 U
1,3-DICHLOROBENZENE	0.45 U	4.5 U	1.8 U	0.45 U	9 U	5.5
1,3-DICHLOROPROPANE	0.21 U	2.1 U	0.84 U	0.21 U	4.2 U	0.21 U
1,4-DICHLOROBENZENE	0.41 U	4.1 U	1.6 U	0.41 U	21	35
2,2-DICHLOROPROPANE	0.78 U	7.8 U	3.1 U	0.78 U	16 U	0.78 U
2-BUTANONE	1.2 U	12 U	4.6 U	1.2 U	23 U	1.2 U
2-CHLOROETHYL VINYL ETHER	1.5 UR	15 UR	6.1 UR	1.5 UR	31 UR	1.5 UR
2-CHLOROTOLUENE	0.57 U	5.7 U	2.3 U	0.57 U	11 U	0.57 U
2-HEXANONE	1.1 U	11 U	4.4 U	1.1 U	22 U	1.1 U
4-CHLOROTOLUENE	0.43 U	4.3 U	1.7 U	0.43 U	8.6 U	0.43 U
4-ISOPROPYLTOLUENE	0.56 U	5.6 U	2.2 U	0.56 U	11 U	0.56 U
4-METHYL-2-PENTANONE	0.99 U	9.9 U	4 U	0.99 U	20 U	0.99 U
ACETONE	5.4 U	54 U	22 U	5.4 U	110 U	5.4 U
ACROLEIN	--	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--	--
BENZENE	0.42 U	4.2 U	1.7 U	0.89 J	8.4 U	1.1
BROMOBENZENE	0.5 U	5 U	2 U	0.5 U	10 U	0.5 U
BROMOCHLOROMETHANE	0.54 U	5.4 U	2.2 U	0.54 U	11 U	0.54 U
BROMODICHLOROMETHANE	0.17 U	1.7 U	0.68 U	0.17 U	3.4 U	0.17 U
BROMOFORM	0.76 U	7.6 U	3 U	0.76 U	15 U	0.76 U
BROMOMETHANE	0.42 U	4.2 U	1.7 U	0.42 U	8.4 UJ	0.42 UJ
CARBON DISULFIDE	0.59 U	5.9 U	2.4 U	0.59 U	12 U	0.59 U
CARBON TETRACHLORIDE	0.26 U	2.6 U	1 U	0.26 U	5.2 U	0.26 U
CHLOROBENZENE	0.38 U	3.8 U	6	1.5	7.6 U	8
CHLORODIBROMOMETHANE	0.39 U	3.9 U	1.6 U	0.39 U	7.8 U	0.39 U
CHLORODIFLUOROMETHANE	1 UJ	10 UJ	4 UJ	1 UJ	20 UJ	1 UJ
CHLOROETHANE	0.83 U	8.3 U	3.3 U	0.83 U	17 UJ	0.83 UJ
CHLOROFORM	0.47 U	4.7 U	1.9 U	0.47 U	9.4 U	0.47 U
CHLOROMETHANE	0.63 U	6.3 U	2.5 U	0.63 U	13 UJ	0.63 UJ
CIS-1,2-DICHLOROETHENE	0.46 U	4.7	3.7	0.76 J	5.70	50
CIS-1,3-DICHLOROPROPENE	0.61 U	6.1 U	2.4 U	0.61 U	12 U	0.61 U
DIBROMOMETHANE	0.4 U	4 U	1.6 U	0.4 U	8 U	0.4 U
DICHLORODIFLUOROMETHANE	0.35 U	3.5 U	1.4 U	0.35 U	7 U	0.35 U
DIISOPROPYL ETHER	0.17 U	1.7 U	0.68 U	0.39 J	3.4 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.4 U	4 U	1.6 U	0.4 U	8 U	0.4 U
ETHYLBENZENE	0.42 U	4.2 U	1.7 U	0.42 U	8.4 U	0.42 U
HEXACHLOROBUTADIENE	0.83 U	8.3 U	3.3 U	0.83 U	17 U	0.83 U
ISOPROPYLBENZENE	0.49 U	4.9 U	2 U	0.49 U	9.8 U	0.49 U
M+P-XYLENES	0.42 U	4.2 U	1.7 U	0.42 U	8.4 U	0.42 U
METHYL TERT-BUTYL ETHER	0.47 U	4.7 U	1.9 U	0.47 U	9.4 U	0.47 U
METHYLENE CHLORIDE	2.6 U	26 U	10 U	2.6 U	52 U	2.6 U
NAPHTHALENE	0.8 U	8 U	3.2 U	0.8 U	16 UJ	0.8 UJ
N-BUTYLBENZENE	0.6 U	6 U	2.4 U	0.6 U	12 U	0.6 U
N-PROPYLBENZENE	0.57 U	5.7 U	2.3 U	0.57 U	11 U	0.57 U
O-XYLENE	0.42 U	4.2 U	1.7 U	0.42 U	8.4 U	0.42 U
SEC-BUTYLBENZENE	0.53 U	5.3 U	2.1 U	0.53 U	11 U	0.53 U
STYRENE	0.45 U	4.5 U	1.8 U	0.45 U	9 U	0.45 U
TERT-AMYL METHYL ETHER	0.43 U	4.3 U	1.7 U	0.43 U	8.6 U	0.43 U
TERT-BUTYLBENZENE	0.48 U	4.8 U	1.9 U	0.48 U	9.6 U	0.48 U
TERTIARY-BUTYL ALCOHOL	7.2 U	72 UJ	29 U	24 J	140 UJ	7.2 UJ
TETRACHLOROETHENE	0.44 U	4.4 U	1.8 U	0.44 U	8.8 U	0.44 U
TOLUENE	0.44 U	4.4 U	1.8 U	0.44 U	8.8 U	0.44 U
TOTAL XYLENES	0.42 U	4.2 U	1.7 U	0.42 U	8.4 U	0.42 U
TRANS-1,2-DICHLOROETHENE	0.51 U	5.1 U	2 U	0.51 U	10 U	0.51 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	6.7 U	2.7 U	0.67 U	13 U	0.67 U
TRICHLOROETHENE	0.44 U	360	150	0.61 J	590	4.3
TRICHLORODIFLUOROMETHANE	0.45 U	4.5 U	1.8 U	0.45 U	9 UJ	0.45 UJ
VINYL ACETATE	0.61 U	6.1 U	2.4 U	0.61 U	12 U	0.61 U
VINYL CHLORIDE	0.45 U	6.4 J	3.7	8.2	95	9.3
SEMI-VOLATILES (UG/L)						
1,4-DIOXANE	1.5	14	15	44	13	1
METALS (UG/L)						
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	5.5	0.84 J	2 J	4.4 J	2.4 J	2.4 J
BERYLLIUM	0.62 U	0.62 U	0.89 J	0.62 U	1.2	0.62 U
CADMIUM	0.2 U	0.51 J	21	0.2 U	0.74 J	0.2 U
CHROMIUM	2.9 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
COPPER	2.9	1.7 U	18	1.7 U	1.7 U	1.7 U
LEAD	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.14 J	0.13 U	0.18 J	0.13 U	0.22	0.13 U
NICKEL	2.4	85	14	1.5 U	24	1.5 U
SELENIUM	0.89 U	0.89 U	14	0.89 U	0.94 J	0.89 U
SILVER	0.053 U	0.16 J	1.9	0.053 U	0.053 U	0.053 U
THALLIUM	0.21 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
ZINC	15 U	69	73	15 U	18 J	15 U
METALS FILTERED (UG/L)						
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	4.3 J	2.2 J	1.5 J	5.3	3.5 J	2.4 J
BERYLLIUM	0.62 U	0.62 U	0.62 U	0.62 U	1.2	0.62 U
CADMIUM	0.2 U	0.2 U	6.3	0.2 U	0.23 J	0.2 U
CHROMIUM	2.9 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
COPPER	1.7 U	1.7 U	6	1.7 U	1.7 U	1.7 U
LEAD	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
NICKEL	2.3	96	15	1.5 U	24	1.5 U
SELENIUM	0.89 U	0.89 U	6.3	0.89 U	0.9 J	0.89 U
SILVER	0.053 U	0.053 U	0.62 J	0.053 U	0.053 U	0.053 U
THALLIUM	0.21 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
ZINC	15 U	66	68	15 U	15 U	15 U
MISCELLANEOUS (UG/L)						
HEXAVALENT CHROMIUM	0.034	0.005 U	0.013 J	0.017 J	0.005 U	0.005 U
PETROLEUM HYDROCARBONS (UG/L)						
TPH (C6-C10)	49 U	--	--	49 U	--	--
TPH (C10-C28)	240 U	--	--	500	--	--
RADIONUCLIDES (PCI/L)						
RADIUM-228	--	--	--	--	--	--
TOTAL ALPHA RADIUM	--	--	--	--	--	--

LOCATION	MSA-MW-511	MSA-MW-515	MSA-MW-52D	MSA-MW-521	MSA-MW-525
SAMPLE ID	MSA-MW-511-060722	MSA-MW-515-060722	MSA-MW-52D-061622	MSA-MW-521-061622	MSA-MW-525-061622
SAMPLE DATE	20220607	20220607	20220616	20220616	20220616
VOLATILES (UG/L)					
1,1,1,2-TETRACHLOROETHANE	0.43 U	0.43 U	86 U	22 U	0.43 U
1,1,1-TRICHLOROETHANE	0.48 U	0.48 U	96 U	24 U	0.48 U
1,1,2-TETRACHLOROETHANE	0.6 U	0.6 U	120 U	30 U	0.6 U
1,1,2-TRICHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	82 U	21 U	0.41 U
1,1-DICHLOROETHANE	0.47 U	0.47 U	94 U	24 U	0.47 U
1,1-DICHLOROETHENE	0.49 U	0.49 U	98 U	25 U	0.49 U
1,1-DICHLOROPROPENE	0.36 U	0.36 U	72 U	18 U	0.36 U
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 U	110 UJ	27 UJ	0.54 U
1,2,3-TRICHLOROPROPANE	0.52 U	0.52 U	100 U	26 U	0.52 U
1,2,3-TRIMETHYLBENZENE	0.31 U	0.31 U	62 U	16 U	0.31 UJ
1,2,4-TRICHLOROBENZENE	0.77 U	0.77 U	150 UJ	57	0.77 UJ
1,2,4-TRIMETHYLBENZENE	0.52 U	0.52 U	100 U	26 U	0.52 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	180 U	46 U	0.91 U
1,2-DIBROMOETHANE	0.41 U	0.41 U	82 U	21 U	0.41 U
1,2-DICHLOROBENZENE	0.48 U	0.48 U	96 U	24 U	0.48 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	42 U	15 J	1
1,2-DICHLOROPROPANE	0.47 U	0.47 U	94 U	24 U	0.47 U
1,3-DICHLOROBENZENE	0.45 U	0.45 U	90 U	23 U	0.45 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	42 U	11 U	0.21 U
1,4-DICHLOROBENZENE	0.41 U	0.41 U	82 U	21 U	0.41 U
2,2-DICHLOROPROPANE	0.78 UJ	0.78 UJ	160 U	39 U	0.78 U
2-BUTANONE	1.2 U	1.2 U	230 U	58 U	1.2 J
2-CHLOROETHYL VINYL ETHER	1.5 UR	1.5 UR	310 UR	77 UR	1.5 UR
2-CHLOROTOLUENE	0.57 U	0.57 U	110 U	29 U	0.57 U
2-HEXANONE	1.1 U	1.1 U	220 U	56 U	1.1 U
4-CHLOROTOLUENE	0.43 U	0.43 U	86 U	22 U	0.43 U
4-ISOPROPYLTOLUENE	0.56 U	0.56 U	110 U	28 U	0.56 U
4-METHYL-2-PENTANONE	0.99 U	0.99 U	200 U	50 U	0.99 U
ACETONE	5.4 U	5.4 U	1100 UJ	270 U	5.4 J
ACROLEIN	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--
BENZENE	0.42 U	0.42 U	84 U	21 U	1.9
BROMOBENZENE	0.5 U	0.5 U	100 U	25 U	0.5 U
BROMOCHLOROMETHANE	0.54 U	0.54 U	110 U	27 U	0.54 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	34 U	8.5 U	0.17 U
BROMOFORM	0.76 U	0.76 U	150 U	38 U	0.76 U
BROMOMETHANE	0.42 UJ	0.42 UJ	84 U	21 U	0.42 U
CARBON DISULFIDE	0.59 UJ	0.59 U	120 U	30 U	0.59 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	52 U	13 U	0.26 U
CHLOROBENZENE	0.38 U	0.38 U	76 U	19 U	1.4
CHLORODIBROMOMETHANE	0.39 U	0.39 U	78 U	20 U	0.39 U
CHLORODIFLUOROMETHANE	1 UJ	1 UJ	200 UJ	50 UJ	1 UJ
CHLOROETHANE	0.83 UJ	0.83 UJ	170 U	42 U	0.83 U
CHLOROFORM	0.47 U	0.47 U	94 U	24 U	0.47 U
CHLOROMETHANE	0.63 U	0.63 U	130 U	32 U	0.63 U
CIS-1,2-DICHLOROETHENE	3.5	65	410	1500	18
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	120 U	31 U	0.61 U
DIBROMOMETHANE	0.4 U	0.4 U	80 U	20 U	0.4 U
DICHLORODIFLUOROMETHANE	0.35 U	0.35 U	70 U	18 U	0.35 U
DIISOPROPYL ETHER	0.17 U	0.17 U	34 U	8.5 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.4 U	0.4 U	80 U	20 U	0.4 U
ETHYLBENZENE	0.42 U	0.42 U	84 U	21 U	0.42 U
HEXACHLOROBUTADIENE	0.83 U	0.83 U	170 U	42 U	0.83 U
ISOPROPYLBENZENE	0.49 U	0.49 U	98 U	25 U	0.49 U
M+P-XYLENES	0.42 U	0.42 U	84 U	21 U	0.42 U
METHYL TERT-BUTYL ETHER	0.47 U	0.47 U	94 U	24 U	0.47 U
METHYLENE CHLORIDE	2.6 U	2.6 U	520 U	130 U	2.6 U
NAPHTHALENE	0.8 U	0.8 U	160 U	40 U	0.8 U
N-BUTYLBENZENE	0.6 U	0.6 U	120 U	30 U	0.6 U
N-PROPYLBENZENE	0.57 U	0.57 U	110 U	29 U	0.57 U
O-XYLENE	0.42 U	0.42 U	84 U	21 U	0.42 U
SEC-BUTYLBENZENE	0.53 U	0.53 U	110 U	27 U	0.53 U
STYRENE	0.45 U	0.45 U	90 U	23 U	0.45 U
TERT-AMYL METHYL ETHER	0.43 U	0.43 U	86 U	22 U	0.43 U
TERT-BUTYLBENZENE	0.48 U	0.48 U	96 U	24 U	0.48 U
TERTIARY-BUTYL ALCOHOL	7.2 U	7.2 UJ	1400 UJ	360 U	96
TETRACHLOROETHENE	0.44 U	0.44 U	88 U	22 U	0.44 U
TOLUENE	0.44 U	0.44 U	88 U	22 U	0.44 U
TOTAL XYLENES	0.42 U	0.42 U	84 U	21 U	0.42 U
TRANS-1,2-DICHLOROETHENE	0.51 U	0.51 J	100 U	26 U	2.4
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	130 U	34 U	0.67 U
TRICHLOROETHENE	2	59	3700	930	0.78 J
TRICHLORODIFLUOROMETHANE	0.45 UJ	0.45 UJ	90 U	23 U	0.45 U
VINYL ACETATE	0.61 U	0.61 U	120 U	31 U	0.61 U
VINYL CHLORIDE	0.45 U	1.9	110 J	410	21
SEMI-VOLATILES (UG/L)					
1,4-DIOXANE	0.39 UJ	0.39 UJ	30	29	69
METALS (UG/L)					
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	0.75 U	0.75 U	0.75 U	13
BERYLLIUM	3.4	2.5	4.7	2	0.62 U
CADMIUM	1.8	1.1	180	260	0.2 U
CHROMIUM	2.5 J	2.5 U	7.2	2.5 U	2.5 U
COPPER	19	1.7 U	13	1.7 U	1.7 U
LEAD	0.56 J	0.45 U	1.4	2.5	0.45 U
MERCURY	0.24	0.24	0.13 U	0.13 U	0.13 U
NICKEL	58	15	110	39	2.5
SELENIUM	0.89 U	0.89 U	2 J	0.89 U	1.3 J
SILVER	0.053 U	0.12 J	1.1	0.4 J	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
ZINC	100	21	330	140	15 U
METALS FILTERED (UG/L)					
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	0.75 U	0.75 U	0.86 J	8.4
BERYLLIUM	3.7	2.6	4.4	1.9	0.62 U
CADMIUM	1.7	1	170	52	0.2 U
CHROMIUM	2.7 J	2.5 U	6.5	2.5 U	2.5 U
COPPER	20	1.7 U	11	1.7 U	1.7 U
LEAD	0.55 J	0.45 U	1.4	0.46 J	0.45 U
MERCURY	0.26	0.29	0.13 U	0.13 U	0.13 U
NICKEL	59	15	98	38	3
SELENIUM	0.89 U	0.89 U	1.7 J	0.89 U	1.4 J
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
ZINC	110	15 U	300	110	17 J
MISCELLANEOUS (UG/L)					
HEXAVALENT CHROMIUM	0.005 U	0.005 U	0.005 U	0.02	0.005 U
PETROLEUM HYDROCARBONS (UG/L)					
TPH (C6-C10)	--	67 J	--	--	49 U
TPH (C10-C28)	--	240 U	--	--	1600
RADIONUCLIDES (PCI/L)					
RADIUM-228	--	--	--	--	--
TOTAL ALPHA RADIUM	--	--	--	--	--

LOCATION	MSA-MW-531	MSA-MW-535	MSA-MW-541	MSA-MW-545	MT-MW015	MT-MW025	QC
SAMPLE ID	MSA-MW-531-052522	MSA-MW-535-052322	MSA-MW-541-060922	MSA-MW-545-060922	MT-MW-015-061022	MT-MW-025-061022	T8-051322
SAMPLE DATE	20220525	20220523	20220609	20220609	20220610	20220610	20220513
VOLATILES (UG/L)							
1,1,1,2-TETRACHLOROETHANE	220 U	0.43 U	430 U	430 U	--	--	0.43 U
1,1,1-TRICHLOROETHANE	240 U	0.48 U	480 U	480 U	--	--	0.48 U
1,1,2-TETRACHLOROETHANE	300 UJ	0.6 U	600 U	600 U	--	--	0.6 U
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	210 U	0.41 U	410 U	410 U	--	--	0.41 U
1,1-DICHLOROETHANE	240 U	0.47 U	470 U	470 U	--	--	0.47 U
1,1-DICHLOROETHENE	250 U	0.49 U	490 U	490 U	--	--	0.49 U
1,1-DICHLOROPROPENE	180 U	0.36 U	360 U	360 U	--	--	0.36 U
1,2,3-TRICHLOROBENZENE	270 U	0.54 U	540 U	540 U	--	--	0.54 U
1,2,3-TRICHLOROPROPANE	260 U	0.52 U	520 U	520 U	--	--	0.52 U
1,2,3-TRIMETHYLBENZENE	160 U	0.31 UJ	310 U	310 U	--	--	0.31 U
1,2,4-TRICHLOROBENZENE	390 U	0.77 U	770 U	770 U	--	--	0.77 U
1,2,4-TRIMETHYLBENZENE	260 U	0.52 UJ	520 U	520 U	--	--	0.52 U
1,2-DIBROMO-3-CHLOROPROPANE	460 UJ	0.91 UJ	910 U	910 U	--	--	0.91 U
1,2-DIBROMOETHANE	210 U	0.41 U	410 U	410 U	--	--	0.41 U
1,2-DICHLOROBENZENE	240 U	0.48 U	480 U	480 U	--	--	0.48 U
1,2-DICHLOROETHANE	110 U	0.82 J	210 U	210 U	--	--	0.21 U
1,2-DICHLOROPROPANE	240 U	0.47 U	470 U	470 U	--	--	0.47 U
1,3-DICHLOROBENZENE	230 U	0.45 U	450 U	450 U	--	--	0.45 U
1,3-DICHLOROPROPANE	110 U	0.21 U	210 U	210 U	--	--	0.21 U
1,4-DICHLOROBENZENE	210 U	0.41 U	410 U	410 U	--	--	0.41 U
2,2-DICHLOROPROPANE	390 UJ	0.78 U	780 U	780 U	--	--	0.78 U
2-BUTANONE	580 UJ	1.2 U	1200 U	1200 U	--	--	1.2 U
2-CHLOROETHYL VINYL ETHER	770 UR	1.5 UR	1500 UR	1500 UR	--	--	1.5 UR
2-CHLOROTOLUENE	290 U	0.57 U	570 U	570 U	--	--	0.57 U
2-HEXANONE	560 UJ	1.1 U	1100 U	1100 U	--	--	1.1 U
4-CHLOROTOLUENE	220 U	0.43 U	430 U	430 U	--	--	0.43 U
4-ISOPROPYLTOLUENE	280 U	0.56 UJ	560 U	560 U	--	--	0.56 U
4-METHYL-2-PENTANONE	500 UJ	0.99 U	990 U	990 U	--	--	0.99 U
ACETONE	2700 UJ	5.4 U	5400 U	5400 U	--	--	5.4 U
ACROLEIN	--	--	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--	--	--
BENZENE	210 U	0.54 J	420 U	420 U	--	--	0.42 U
BROMOBENZENE	250 U	0.5 U	500 U	500 U	--	--	0.5 U
BROMOCHLOROMETHANE	270 U	0.54 U	540 U	540 U	--	--	0.54 U
BROMODICHLOROMETHANE	85 U	0.17 U	170 U	170 U	--	--	0.17 U
BROMOFORM	380 U	0.76 UJ	760 U	760 U	--	--	0.76 U
BROMOMETHANE	210 U	0.42 UJ	420 U	420 U	--	--	0.42 U
CARBON DISULFIDE	300 U	0.59 U	590 U	590 U	--	--	0.59 U
CARBON TETRACHLORIDE	130 U	0.26 U	7200	950 J	--	--	0.26 U
CHLOROBENZENE	190 U	0.38 U	380 U	380 U	--	--	0.38 U
CHLORODIBROMOMETHANE	200 U	0.39 U	390 U	390 U	--	--	0.39 U
CHLORODIFLUOROMETHANE	500 UJ	1 UJ	1000 UJ	1000 UJ	--	--	1 UJ
CHLOROETHANE	420 UJ	0.83 UJ	830 U	830 U	--	--	0.83 U
CHLOROFORM	240 U	0.47 U	1700	1300	--	--	0.47 U
CHLOROMETHANE	320 UJ	0.63 U	630 U	630 U	--	--	0.63 U
CIS-1,2-DICHLOROETHENE	19000	2.9	5200	23000	--	--	0.46 U
CIS-1,3-DICHLOROPROPENE	310 UJ	0.61 U	610 U	610 U	--	--	0.61 U
DIBROMOMETHANE	200 U	0.4 U	400 U	400 U	--	--	0.4 U
DICHLORODIFLUOROMETHANE	180 U	0.35 U	350 U	350 U	--	--	0.35 U
DIISOPROPYL ETHER	85 U	0.17 U	170 U	170 U	--	--	0.17 U
ETHYL TERT-BUTYL ETHER	200 U	0.4 U	400 U	400 U	--	--	0.4 U
ETHYLBENZENE	210 U	0.42 U	420 U	420 U	--	--	0.42 U
HEXACHLOROBUTADIENE	420 U	0.83 UJ	830 U	830 U	--	--	0.83 U
ISOPROPYLBENZENE	250 U	0.49 U	490 U	490 U	--	--	0.49 U
M+P-XYLENES	210 U	0.42 U	420 U	420 U	--	--	0.42 U
METHYL TERT-BUTYL ETHER	240 U	0.47 U	470 U	470 U	--	--	0.47 U
METHYLENE CHLORIDE	1300 U	2.6 U	2600 U	2600 U	--	--	2.6 U
NAPHTHALENE	400 U	0.8 UJ	800 U	800 U	--	--	0.8 U
N-BUTYLBENZENE	300 UJ	0.6 UJ	600 U	600 U	--	--	0.6 U
N-PROPYLBENZENE	290 U	0.57 U	570 U	570 U	--	--	0.57 U
O-XYLENE	210 U	0.42 U	420 U	420 U	--	--	0.42 U
SEC-BUTYLBENZENE	270 U	0.53 U	530 U	530 U	--	--	0.53 U
STYRENE	230 U	0.45 U	450 U	450 U	--	--	0.45 U
TERT-AMYL METHYL ETHER	220 U	0.43 U	430 U	430 U	--	--	0.43 U
TERT-BUTYLBENZENE	240 U	0.48 U	480 U	480 U	--	--	0.48 U
TERTIARY-BUTYL ALCOHOL	3600 UJ	9.5 J	7200 U	7200 U	--	--	7.2 UJ
TETRACHLOROETHENE	220 U	0.44 U	440 U	440 U	--	--	0.44 U
TOLUENE	220 U	0.44 U	1700	6900	--	--	0.44 U
TOTAL XYLENES	210 U	0.42 U	420 U	420 U	--	--	0.42 U
TRANS-1,2-DICHLOROETHENE	260 U	0.51 U	510 U	510 U	--	--	0.51 U
TRANS-1,3-DICHLOROPROPENE	340 UJ	0.67 U	670 U	670 U	--	--	0.67 U
TRICHLOROETHENE	6000	1.8	20000	12000	--	--	0.44 U
TRICHLORODIFLUOROMETHANE	230 U	0.45 UJ	450 U	450 U	--	--	0.45 U
VINYL ACETATE	310 UJ	0.61 U	610 U	610 U	--	--	0.61 UJ
VINYL CHLORIDE	4300	6.8	450 U	6400	--	--	0.45 UJ
SEMI-VOLATILES (UG/L)							
1,4-DIOXANE	140	75 J	95	230	--	--	--
METALS (UG/L)							
ANTIMONY	0.57 U	0.57 U	0.57 U	0.92 J	--	--	--
ARSENIC	0.75 U	4.2 J	6.8	14	--	--	--
BERYLLIUM	2.1	0.62 U	0.62 U	0.62 U	--	--	--
CADMIUM	100	0.29 J	39	19	--	--	--
CHROMIUM	21	3.1 J	9.8	13	--	--	--
COPPER	150	1.7 U	2.3	4.8	--	--	--
LEAD	0.96 J	0.45 U	0.86 J	1.8	--	--	--
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	--	--	--
NICKEL	160	22	120	26	--	--	--
SELENIUM	1.9 J	0.89 U	1.6 J	1.5 J	--	--	--
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	--	--	--
THALLIUM	0.23 J	0.2 U	0.2 U	0.2 U	--	--	--
ZINC	280	25	1000	100	--	--	--
METALS FILTERED (UG/L)							
ANTIMONY	0.57 U	0.57 U	0.57 U	0.73 J	--	--	--
ARSENIC	0.75 U	0.75 U	0.75 U	10	--	--	--
BERYLLIUM	2	0.62 U	0.62 U	0.62 U	--	--	--
CADMIUM	97	0.23 J	23	5.2	--	--	--
CHROMIUM	19	2.5 U	6.2	8.9	--	--	--
COPPER	140	1.7 U	1.7 U	1.7 U	--	--	--
LEAD	0.9 J	0.45 U	0.45 U	0.45 U	--	--	--
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	--	--	--
NICKEL	160	21	110	23	--	--	--
SELENIUM	1.6 J	0.89 U	1.4 J	1.1 J	--	--	--
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	--	--	--
THALLIUM	0.23 J	0.2 U	0.2 U	0.2 U	--	--	--
ZINC	270	23	920	33	--	--	--
MISCELLANEOUS (UG/L)							
HEXAVALENT CHROMIUM	0.005 U	0.005 U	0.05 U	0.05 U	--	--	--
PETROLEUM HYDROCARBONS (UG/L)							
TPH (C6-C10)	--	49 U	--	29000	49 U	1700	--
TPH (C10-C28)	--	680 U	--	320000	470 J	7400	--
RADIONUCLIDES (PCI/L)							
RADIUM-228	--	--	--	--	--	--	--
TOTAL ALPHA RADIUM	--	--	--	--	--	--	--

LOCATION	QC	QC	QC	QC	QC	QC	QC
SAMPLE ID	TB-051622	TB-051722	TB 051822	TB-052322	TB-052422	TB-052522	TB-052622
SAMPLE DATE	20220516	20220517	20220518	20220523	20220524	20220525	20220526
VOLATILES (UG/L)							
1,1,1,2-TETRACHLOROETHANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
1,1,1-TRICHLOROETHANE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
1,1,2-TETRACHLOROETHANE	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,1-DICHLOROETHENE	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,1-DICHLOROPROPENE	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
1,2,3-TRIMETHYLBENZENE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,2,4-TRICHLOROBENZENE	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
1,2,4-TRIMETHYLBENZENE	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,2-DICHLOROBENZENE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,3-DICHLOROBENZENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
2,2-DICHLOROPROPANE	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	1.5 UR	1.5 UR	1.5 UR	1.5 UR	1.5 UR	1.5 UR	1.5 UR
2-CHLOROTOLUENE	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-HEXANONE	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
4-CHLOROTOLUENE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
4-ISOPROPYLTOLUENE	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U
4-METHYL-2-PENTANONE	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
ACROLEIN	--	--	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--	--	--
BENZENE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
BROMOBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOCHLOROMETHANE	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
CHLOROMETHANE	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
CIS-1,2-DICHLOROETHENE	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
DICHLORODIFLUOROMETHANE	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
ETHYLBENZENE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
HEXACHLOROBUTADIENE	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
ISOPROPYLBENZENE	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
M+P-XYLENES	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
METHYL TERT-BUTYL ETHER	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
NAPHTHALENE	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
N-BUTYLBENZENE	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
N-PROPYLBENZENE	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
O-XYLENE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
SEC-BUTYLBENZENE	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
STYRENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
TERT-AMYL METHYL ETHER	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
TERT-BUTYLBENZENE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
TERTIARY-BUTYL ALCOHOL	7.2 UJ	7.2 UJ	7.2 UJ	7.2 UJ	7.2 UJ	7.2 UJ	7.2 UJ
TETRACHLOROETHENE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
TOLUENE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
TOTAL XYLENES	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
TRANS-1,2-DICHLOROETHENE	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
TRICHLORODIFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.61 UJ	0.61 UJ	0.61 UJ	0.61 UJ	0.61 UJ	0.61 UJ	0.61 UJ
VINYL CHLORIDE	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ	0.45 UJ
SEMI-VOLATILES (UG/L)							
1,4-DIOXANE	--	--	--	--	--	--	--
METALS (UG/L)							
ANTIMONY	--	--	--	--	--	--	--
ARSENIC	--	--	--	--	--	--	--
BERYLLIUM	--	--	--	--	--	--	--
CADMIUM	--	--	--	--	--	--	--
CHROMIUM	--	--	--	--	--	--	--
COPPER	--	--	--	--	--	--	--
LEAD	--	--	--	--	--	--	--
MERCURY	--	--	--	--	--	--	--
NICKEL	--	--	--	--	--	--	--
SELENIUM	--	--	--	--	--	--	--
SILVER	--	--	--	--	--	--	--
THALLIUM	--	--	--	--	--	--	--
ZINC	--	--	--	--	--	--	--
METALS FILTERED (UG/L)							
ANTIMONY	--	--	--	--	--	--	--
ARSENIC	--	--	--	--	--	--	--
BERYLLIUM	--	--	--	--	--	--	--
CADMIUM	--	--	--	--	--	--	--
CHROMIUM	--	--	--	--	--	--	--
COPPER	--	--	--	--	--	--	--
LEAD	--	--	--	--	--	--	--
MERCURY	--	--	--	--	--	--	--
NICKEL	--	--	--	--	--	--	--
SELENIUM	--	--	--	--	--	--	--
SILVER	--	--	--	--	--	--	--
THALLIUM	--	--	--	--	--	--	--
ZINC	--	--	--	--	--	--	--
MISCELLANEOUS (UG/L)							
HEXAVALENT CHROMIUM	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/L)							
TPH (C6-C10)	--	--	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--	--	--
RADIONUCLIDES (PCI/L)							
RADIUM-228	--	--	--	--	--	--	--
TOTAL ALPHA RADIUM	--	--	--	--	--	--	--

LOCATION	QC	QC	QC	QC	QC	QC
SAMPLE ID	TB-052722	TB-060222	TB-060322	TB-060622	TB-060722	TB-060822
SAMPLE DATE	20220527	20220602	20220603	20220606	20220607	20220608
VOLATILES (UG/L)						
1,1,1,2-TETRACHLOROETHANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
1,1,1-TRICHLOROETHANE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
1,1,2,2-TETRACHLOROETHANE	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,1-DICHLOROETHENE	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,1-DICHLOROPROPENE	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
1,2,3-TRICHLOROBENZENE	0.54 UJ	0.54 UJ	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
1,2,3-TRIMETHYLBENZENE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,2,4-TRICHLOROBENZENE	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
1,2,4-TRIMETHYLBENZENE	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,2-DICHLOROBENZENE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,3-DICHLOROBENZENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
2,2-DICHLOROPROPANE	0.78 U	0.78 U	0.78 U	0.78 UJ	0.78 UJ	0.78 UJ
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	1.5 UR	1.5 UR	1.5 UR	1.5 UR	1.5 UR	1.5 UR
2-CHLOROTOLUENE	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-HEXANONE	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
4-CHLOROTOLUENE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
4-ISOPROPYLTOLUENE	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U
4-METHYL-2-PENTANONE	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
ACROLEIN	--	--	--	--	--	--
ACRYLONITRILE	--	--	--	--	--	--
BENZENE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
BROMOBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOCHLOROMETHANE	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 UJ	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 UJ	0.42 UJ	0.42 UJ	0.42 UJ	0.42 UJ	0.42 UJ
CARBON DISULFIDE	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 UJ
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
CHLORODIBROMOMETHANE	0.39 UJ	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 UJ	0.83 UJ	0.83 UJ
CHLOROFORM	0.75 J	0.64 J	0.62 J	0.58 J	0.53 J	0.53 J
CHLOROMETHANE	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
CIS-1,2-DICHLOROETHENE	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
DICHLORODIFLUOROMETHANE	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
ETHYLBENZENE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
HEXACHLOROBUTADIENE	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
ISOPROPYLBENZENE	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
M+P-XYLENES	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
METHYL TERT-BUTYL ETHER	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
NAPHTHALENE	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
N-BUTYLBENZENE	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
N-PROPYLBENZENE	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
O-XYLENE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
SEC-BUTYLBENZENE	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
STYRENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
TERT-AMYL METHYL ETHER	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
TERT-BUTYLBENZENE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
TERTIARY-BUTYL ALCOHOL	7.2 U	7.2 U	7.2 U	7.2 UJ	7.2 UJ	7.2 U
TETRACHLOROETHENE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
TOLUENE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
TOTAL XYLENES	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
TRANS-1,2-DICHLOROETHENE	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
TRICHLORODIFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 UJ	0.45 UJ	0.45 UJ
VINYL ACETATE	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
VINYL CHLORIDE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
SEMI-VOLATILES (UG/L)						
1,4-DIOXANE	--	--	--	--	--	--
METALS (UG/L)						
ANTIMONY	--	--	--	--	--	--
ARSENIC	--	--	--	--	--	--
BERYLLIUM	--	--	--	--	--	--
CADMIUM	--	--	--	--	--	--
CHROMIUM	--	--	--	--	--	--
COPPER	--	--	--	--	--	--
LEAD	--	--	--	--	--	--
MERCURY	--	--	--	--	--	--
NICKEL	--	--	--	--	--	--
SELENIUM	--	--	--	--	--	--
SILVER	--	--	--	--	--	--
THALLIUM	--	--	--	--	--	--
ZINC	--	--	--	--	--	--
METALS FILTERED (UG/L)						
ANTIMONY	--	--	--	--	--	--
ARSENIC	--	--	--	--	--	--
BERYLLIUM	--	--	--	--	--	--
CADMIUM	--	--	--	--	--	--
CHROMIUM	--	--	--	--	--	--
COPPER	--	--	--	--	--	--
LEAD	--	--	--	--	--	--
MERCURY	--	--	--	--	--	--
NICKEL	--	--	--	--	--	--
SELENIUM	--	--	--	--	--	--
SILVER	--	--	--	--	--	--
THALLIUM	--	--	--	--	--	--
ZINC	--	--	--	--	--	--
MISCELLANEOUS (UG/L)						
HEXAVALENT CHROMIUM	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/L)						
TPH (C6-C10)	--	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--	--
RADIONUCLIDES (PCI/L)						
RADIUM-228	--	--	--	--	--	--
TOTAL ALPHA RADIUM	--	--	--	--	--	--

LOCATION	QC	QC	QC	QC	QC
SAMPLE ID	TB-060922	TB-061022	TB-061322	TB-061422	TB-061522-02
SAMPLE DATE	20220609	20220610	20220613	20220614	20220615
VOLATILES (UG/L)					
1,1,1,2-TETRACHLOROETHANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
1,1,1-TRICHLOROETHANE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
1,1,2-TETRACHLOROETHANE	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,1,2-TRICHLOROETHANE	0.45 U	0.45 U	0.45 U	0.45 U	--
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,1-DICHLOROETHENE	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,1-DICHLOROPROPENE	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 UJ	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
1,2,3-TRIMETHYLBENZENE	0.31 U	0.31 U	0.31 UJ	0.31 U	0.31 U
1,2,4-TRICHLOROBENZENE	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
1,2,4-TRIMETHYLBENZENE	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,2-DICHLOROBENZENE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,3-DICHLOROBENZENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
2,2-DICHLOROPROPANE	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	1.5 UR	1.5 UR	1.5 UR	1.5 UR	1.5 UR
2-CHLOROTOLUENE	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-HEXANONE	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
4-CHLOROTOLUENE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
4-ISOPROPYLTOLUENE	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U
4-METHYL-2-PENTANONE	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
ACROLEIN	3.6 UR	3.6 UR	3.6 UR	3.6 UR	--
ACRYLONITRILE	2.2 U	2.2 U	2.2 U	2.2 U	--
BENZENE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
BROMOBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOCHLOROMETHANE	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
BROMOFORM	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U
BROMOMETHANE	0.42 U	0.42 UJ	0.42 UJ	0.42 U	0.42 UJ
CARBON DISULFIDE	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
CHLORODIBROMOMETHANE	0.39 U	0.39 UJ	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	0.65 J	0.58 J	0.74 J+	0.68 J	0.67 J
CHLOROMETHANE	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
CIS-1,2-DICHLOROETHENE	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
DIBROMOMETHANE	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
DICHLORODIFLUOROMETHANE	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
DIISOPROPYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
ETHYL TERT-BUTYL ETHER	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
ETHYLBENZENE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
HEXACHLOROBUTADIENE	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
ISOPROPYLBENZENE	0.49 U	0.49 UJ	0.49 U	0.49 U	0.49 U
M+P-XYLENES	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
METHYL TERT-BUTYL ETHER	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
NAPHTHALENE	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
N-BUTYLBENZENE	0.6 U	0.6 UJ	0.6 U	0.6 U	0.6 U
N-PROPYLBENZENE	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
O-XYLENE	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
SEC-BUTYLBENZENE	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
STYRENE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
TERT-AMYL METHYL ETHER	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
TERT-BUTYLBENZENE	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
TERTIARY-BUTYL ALCOHOL	7.2 U	7.2 UJ	7.2 UJ	7.2 U	7.2 UJ
TETRACHLOROETHENE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
TOLUENE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
TOTAL XYLENES	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
TRANS-1,2-DICHLOROETHENE	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
TRICHLORODIFLUOROMETHANE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	0.61 U	0.61 UJ	0.61 U	0.61 U	0.61 U
VINYL CHLORIDE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
SEMI-VOLATILES (UG/L)					
1,4-DIOXANE	--	--	--	--	--
METALS (UG/L)					
ANTIMONY	--	--	--	--	--
ARSENIC	--	--	--	--	--
BERYLLIUM	--	--	--	--	--
CADMIUM	--	--	--	--	--
CHROMIUM	--	--	--	--	--
COPPER	--	--	--	--	--
LEAD	--	--	--	--	--
MERCURY	--	--	--	--	--
NICKEL	--	--	--	--	--
SELENIUM	--	--	--	--	--
SILVER	--	--	--	--	--
THALLIUM	--	--	--	--	--
ZINC	--	--	--	--	--
METALS FILTERED (UG/L)					
ANTIMONY	--	--	--	--	--
ARSENIC	--	--	--	--	--
BERYLLIUM	--	--	--	--	--
CADMIUM	--	--	--	--	--
CHROMIUM	--	--	--	--	--
COPPER	--	--	--	--	--
LEAD	--	--	--	--	--
MERCURY	--	--	--	--	--
NICKEL	--	--	--	--	--
SELENIUM	--	--	--	--	--
SILVER	--	--	--	--	--
THALLIUM	--	--	--	--	--
ZINC	--	--	--	--	--
MISCELLANEOUS (UG/L)					
HEXAVALENT CHROMIUM	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/L)					
TPH (C6-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--
RADIONUCLIDES (PCI/L)					
RADIUM-228	--	--	--	--	--
TOTAL ALPHA RADIUM	--	--	--	--	--

Appendix E is available Upon Request
**APPENDIX E—DATA-VALIDATION REPORTS WITH CHAIN-
OF-CUSTODY FORMS**

Appendix F is available Upon Request
APPENDIX F—FULL LABORATORY ANALYTICAL
REPORTS