

# Ecological Research on PFAS Contamination of Wildlife at Holloman Lake

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## 1. Introduction

Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this report for the New Mexico Environment Department (NMED) to present the results of ecological research on per- and polyfluoroalkyl substances (PFAS) contamination at Holloman Lake. To better understand the scope of potential and existing environmental contamination associated with PFAS around the state, NMED has worked with state and federal partners to conduct sampling for PFAS in sediment, surface water, and groundwater around the state. In 2021, with funding from NMED and in partnership with the University of New Mexico (UNM) Museum of Southwestern Biology (MSB), DBS&A began an ecological study on PFAS contamination at Holloman Lake, a wastewater lake located in a publicly accessible area of Holloman Air Force Base (AFB) in Otero County. Very high PFAS concentrations were documented in waterfowl tissue samples, prompting concern about duck hunting and human consumption of contaminated meat (Witt et al., 2024). Very high PFAS concentrations were also found in the tissues of small mammals both along the lake shoreline and in the uplands (Witt et al., 2024).

In early 2024, DBS&A and MSB proposed to expand the scope of the ecological study to conduct the following activities: (1) collect and analyze duck tissue samples from other New Mexico wetlands and, as needed, compare their PFAS contamination profiles with those from Holloman Lake, (2) analyze oryx (or gemsbok, *Oryx gazella*) tissue samples from White Sands Missile Range and other locations to investigate risks associated with hunting of large game species in the vicinity of Holloman Lake, (3) conduct post-mortem examinations of at least 10 euthanized animals from Holloman Lake with microscopic analysis of multiple organs including kidneys and liver, (4) analyze a small number of tissue samples obtained from carcasses of carnivores killed by vehicle traffic along U.S. Highway 70 (US 70) near Holloman Lake, and (5) document PFAS contamination levels at increasing distances from the shoreline, along transects extending in the direction of prevailing winds. The primary goals of the proposed research were to help determine risks to human communities outside of the immediate footprint of PFAS contamination at Holloman Lake and Holloman AFB, begin assessing ecological toxicity, and better understand what physical, chemical, biological, and historical factors contribute to some of the highest contamination levels in wildlife documented worldwide (Witt et al., 2024). The scope of this research does not include any assessment of the size, shape, and directionality of the PFAS groundwater plume, which remains to be investigated due to the continued lack of access for drilling exploratory wells (DBS&A, 2022).

## 2. Site Description

Established in 1942, Holloman AFB occupies approximately 50,763 acres of federally owned land in Otero County, New Mexico. It is located 6 miles southwest of the central business district of Alamogordo, southeast of and contiguous to the much larger (2.2 million-acre) White Sands Missile Range. US 70, which runs southwest-northeast across New Mexico, borders the south end of Holloman AFB (Figure 1).

Holloman Lake and so-called "Stinky" Playa immediately to the south are remnant alkali playa lakes that were modified in the 1960s through the construction of a non-engineered dam that now separates them (Photographs 1 and 2). The dam was intended to store domestic stormwater and effluent from a chain of wetlands and the Holloman AFB wastewater treatment plant (WWTP), all located upstream of Holloman Lake and forming a wastewater catchment system for the base. Around 2010, additional development at Holloman Lake involved opening the area to the public for camping, nature trails, and bird watching opportunities.



**Photograph 1. View to the northwest from the dam at the southern end of Holloman Lake.**



**Photograph 2. View to the south from the dam at the southern end of Holloman Lake. The presence of water in "Stinky" Playa is indicative of seepage under the dam.**

Today, Holloman Lake is an Audubon-designated Important Bird Area sustaining thousands of birds for at least part of the year. A total of 252 bird species have been recorded at Holloman Lake, 113 of which are aquatic species and 41 of which are game species that can be legally hunted (Witt et al., 2024). Through 2023, hunting was still permitted at Holloman Lake at designated times of the year. However, in light of mounting PFAS contamination evidence, Holloman AFB altered its stance on permissible recreational activities in 2024. It no longer authorizes hunting at the lake, though other public uses of the area, such as camping, continue. Cattle and oryx are also a common occurrence in the freshwater wetland at the northern end of the lake.

Holloman Lake currently receives a continuous flow of treated effluent at the north outfall (Figure 1). Before the current WWTP was built in 1996, wastewater was funneled through a series of storage/evaporation lagoons that discharged into the east outfall canal then into the lake. Today, the east outfall canal only carries stormwater; it is lined by vegetation dominated by the non-native, invasive saltcedar (*Tamarix* sp.). Salinity is high in Holloman Lake due to the abundance of calcium sulfate deposits in the area. At the north end of the lake, however, freshwater conditions prevail, sustaining the existence of a wetland with lush vegetation including southern cattail (*Typha domiguensis*), marsh fleabane (*Pluchea odorata*), saltcedar, and desert saltgrass (*Distichlis spicata*). A complete ecosystem exists at Holloman Lake and on the

surrounding uplands, from algae and diatoms to primary and secondary consumers to apex predators, including the peregrine falcon (*Falco peregrinus*), which preys on local waterfowl.

### 3. Background

PFAS are a large family (perhaps more than 8,000 [Buck et al., 2021]) of manmade organofluorine compounds that were developed in the early 1940s. Certain PFAS, such as perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS), are mobile, persistent, and bioaccumulative, and are not known to degrade in the environment. The chemical structure of PFAS gives them unique and valuable properties, including the ability to reduce friction and make products more resistant to soil, stain, grease, water, fire, and temperature. These chemical properties make them useful components in a wide array of industrial and commercial applications, such as textiles and leather products, metal plating, the photographic industry, photolithography, semiconductors, paper and packaging, non-stick cookware, food packaging, waterproof clothing, fabric stain protectors, lubricants, and pesticides. Some PFAS are also used as high-performance surfactants in products where an even flow is essential, such as paints, coatings, cleaning products, and fire-fighting foams, such as aqueous film-forming foam (AFFF), for use on liquid (hydrocarbon) fuel fires (U.S. EPA, 2009 and 2021).

PFAS are characterized by linear or branched carbon-fluorine chains connected to a functional group and can vary in length from 4 to 14 molecules. The number of carbon atoms, and therefore the length of the chain comprising a particular PFAS, affects its toxicity and persistence and behavior in humans, wildlife, and the environment. Perfluorosulfonic acids (PFSAs) with six or more carbons (e.g., PFOS) and perfluorinated carboxylic acids (PFCAs) with seven or more carbon atoms (e.g., PFOA) are considered long-chain substances (Buck et al., 2011; U.S. EPA, 2021; ATSDR, 2021). In general, as chain length increases, the bioaccumulation potential of PFAS appears to increase.

PFAS are extremely persistent in environmental mediums because the highly stable carbon-fluorine structure of PFAS can only be broken down at very high temperature. Larger PFAS compounds may transform in the environment to so-called "terminal" PFAS compounds, which are typically less than, or equal to, eight carbon-chain molecules such as PFOA and PFOS, and are resistant to environmental degradation processes such as biodegradation, atmospheric photo-oxidation, direct photolysis, and hydrolysis (ITRC, 2021). Dissipation is by advection, dispersion, and sorption to particulate matter. PFOS has low volatility in ionized form but can

adsorb under limited hydrogeochemical conditions to positively charged sediment particles and be deposited on the ground and into surface water bodies. Because of its persistence, it can be transported long distances in air or water (U.S. EPA, 2016).

Of particular concern at the Holloman site is the use of AFFF to extinguish fires involving highly flammable liquids. AFFF creates a vapor-sealing film on a hydrocarbon fuel surface, cooling the liquid fuel, depriving the fuel of oxygen, and providing protection against reignition by preventing evaporation (Leeson et al., 2021). In 1970, the U.S. Air Force (USAF) began purchasing and using PFAS-containing AFFF for extinguishing petroleum fires and during firefighting training activities (AFIMSC, 2017). By mid-2018, the USAF had transitioned to a new AFFF formula, Phos-Check 3 Percent, which is PFOS-free and contains only trace amounts of PFOA (AFCEC, 2018), although it is possible that stockpiles of old AFFF were used after that time. The USAF restricts use of AFFF to emergency responses and treats all releases as hazardous spills. AFFF contained in aircraft hangar fire protection systems was scheduled to be replaced by the end of 2018 (AFCEC, 2018).

The results of sampling for PFAS conducted by various parties in the Holloman-Alamogordo area indicate that releases of PFAS have occurred from several sources at Holloman AFB, including the AFFF source areas identified by the USAF, as well as Petroleum, Oils, and Lubricants (POL) site 2, and from as yet undetermined sources at the Alamogordo PFAS site in southwest Alamogordo. Additional investigations are required to determine the extent of PFAS contamination in both areas. In 2022, the NMED Ground Water Quality Bureau (GWQB) Superfund Oversight section was planning an additional investigation at the Alamogordo PFAS site, but the schedule for this work had not been determined (DBS&A, 2022).

PFAS concentrations documented at Holloman Lakes from 2021-2023 reached thousands and tens of thousands of nanograms per gram, wet weight (ng/g ww) in liver samples, or near world-records (Witt et al., 2024). The inclusion of historical specimens in the Witt et al. (2024) study showed that contamination of the local wildlife spanned a period of at least three decades. High contamination levels in waterfowl in particular raised concern about the possible ingestion of contaminated meat by local hunters, the apparent reason that Holloman AFB made the decision to no longer allow hunting at Holloman Lake in 2024. However, movement of waterfowl from Holloman Lake to other wetlands around the state still carries a risk for hunters elsewhere. A similar risk exists for large game hunters, as a herd of oryx was often observed at Holloman Lake (Witt et al., 2024). This species should be considered susceptible to PFAS ingestion in the vicinity of the lake.

Recent studies have reported ecological toxicity in Eurasian otters (*Lutra lutra*) (O'Rourke et al., 2024a), Macquarie River turtles (*Emydura macquarii macquarii*) (Beale et al., 2024), and tree swallows (*Tachycineta bicolor*) (Custer et al., 2012 and 2014) at lower or much lower concentrations than those observed at Holloman Lake. In tree swallows, for example, negative associations have been reported between hatching success and PFOS concentrations as low as 150 ng/g ww in eggs (Custer et al., 2012), with Custer et al. (2014) also finding a 20 percent decrease in hatching success at PFOS concentrations of 283 ng/g. In Australia, liver concentrations of PFSAs and PFCAs averaged 3.0 and 0.1 ng/g, respectively, in Macquarie River turtles (Beale et al., 2024). This level of contamination was high enough to produce significant metabolic disruptions in turtles, specifically related to amino acid and lipid metabolism, energy production, and oxidative stress responses. Although no gross or histopathological phenotypical abnormalities could be directly linked to PFAS exposure, proteomic analysis identified several biomarkers of early disease progression (Beale et al., 2024). Gravid females from contaminated sites also showed altered egg composition, particularly in magnesium to calcium ratios, while the biochemical profiles of egg albumin and yolk also exhibited significant differences in metabolites and lipids between contaminated and control sites, suggesting potential impacts on embryo development. Hatchling deformities (e.g., abnormal intergular scale shapes and marginal scale counts) were found to be more pronounced and occur at a higher incidence at the contaminated site. Of particular concern, a lack of juvenile recruitment into the breeding population was observed at the contaminated site, suggesting potential long-term population declines in Macquarie River turtles in Australia. In northern England, linear PFOS (L-PFOS) was detected at a median concentration of 1,740 ng/g ww in river otters (O'Rourke et al., 2024b), or a level of contamination approaching that typically observed at Holloman Lake (Witt et al., 2024). Laboratory studies have suggested associations between exposure to PFSAs and PFCAs and immunotoxicity in animals (Fenton et al., 2020), and in England and Wales, O'Rourke et al. (2024a) found enlarged adrenal glands and unilateral cryptorchidism (linked to environmental pollution) in four otters, three of which showed some of the highest PFOS contamination levels during the study.

## 4. Methodology

Research conducted in 2024 aimed at (1) studying the fate and transport of PFAS at Holloman Lake to better understand why the local wildlife is contaminated at such high levels, (2) documenting ecological toxicity using a combination of necropsies and reproductive

monitoring, and (3) assessing risks to hunters from the ingestion of contaminated waterfowl and/or oryx meat.

## 4.1 Ecosystem-Wide Contamination Profiles

### 4.1.1 Sampling

Collection efforts at Holloman Lake in 2024 resulted in obtaining or preparing 109 surface water, soil, and biological samples for PFAS screening. All collection occurred only in publicly accessible areas around the lake, primarily along the lake shoreline including the freshwater wetland to the north, and in the uplands to the east and northeast (Figure 1). Biological samples included muscle, liver, and bone tissue from birds, mammals, and reptiles, in addition to eggshells and plant, algae, invertebrate, and fish tissue. The shed skin of a western diamondback rattlesnake (*Crotalus atrox*) was also sampled for PFAS screening.

Four surface water samples were collected in the lake at the north and east outfalls and along the south and west shorelines. Soil samples were collected along the east shoreline and at 100-meter intervals along two 900-meter sampling transects extending to the northeast, in the direction of prevailing winds (Figure 1). Sampling of upland plants and invertebrates also occurred every 300 meters along the two transects. Soil, plant, invertebrate, fish, mammal, and/or bird samples were obtained both from the wetland and the main body of the lake, for a comparison of PFAS levels.

Birds were collected by licensed hunters using netting or shotguns with nontoxic shot, operating under federal and state scientific collecting permits and, for game species, in compliance with federal and state hunting regulations. Small mammals were trapped overnight using both live-capture Sherman traps and Museum Special (MS) snap and Victor rat traps, following standard protocols for museum collection and under state scientific collecting permits. Field research protocols were approved by the UNM Institutional Animal Care and Use Committee (Protocols 21-201225-MC and 19-200908-MC).

A coyote (*Canis latrans*) and a western coachwhip (*Masticophis flagellum*) killed by road traffic along US 70 near the turnoff to Holloman Lake were also collected and incorporated into the study.

#### 4.1.2 PFAS Screening

All PFAS screening was conducted by Eurofins Environment Testing Northern California, LLC (Eurofins), where tissue extraction requires 1 gram (g) of homogenized material, weighed out to three significant figures. Tissues were spiked with isotopically labeled extracted internal standards (EISs), and then solvated with 0.4 percent potassium hydroxide (KOH) in methanol and sonicated for 1 hour. Samples were separated by centrifuge at 4,700 relative centrifugal force (RCF) followed by decanting the supernate to a new vessel prior to a second 0.4 percent KOH/methanol solvation. This solution was shaken briefly and sonicated and separated as above. Supernates were combined and the sample was diluted to 125 milliliters (mL) with deionized water and neutralized with glacial acetic acid to pH of 6 to 8. This extract was then passed over a conditioned WAX/graphite carbon black (GCB) solid phase extraction (SPE) (500 milligrams [mg], 50 mg, 6 mL). Cartridges were washed with small volumes of methanol in water prior to drying and then eluted with 0.3 percent ammonium hydroxide in methanol. Samples were not concentrated after SPE, but rather spiked with standards and brought to 10 mL of 80:20 methanol:water prior to analysis.

One method blank (MB) and two laboratory control sample (LCS)/LCS duplicate (LCS/LCSDs) containing 2 percent bovine serum albumin (BSA) for blood batches and 0.02 g corn oil for tissue batches were included with each field sample at a rate of 5 percent (1 MB, LCS/LCSD per 20 samples). The LCS/LCSDs were also spiked with known concentrations of native PFAS. These QC samples are standard practice among U.S. Environmental Protection Agency (EPA) methods and serve as both positive (LCS/LCSD) and negative (MB) controls, as they follow all field samples throughout extraction and analysis.

The analytical configuration consisted of an Exion LC system with two pumps and a SCIEX 5500 mass spectrometer for tissue analyses. Pump-A contained 20 millimole per liter (20mM) ammonium acetate and pump-B delivered 0.5 percent ammonium hydroxide (NH<sub>4</sub>OH) in methanol. Pump-A was used to load 20 microliters ( $\mu$ L) of sample extract onto an analytical column (Gemini 3 um C18 50X2 mm) heated to 45°C, where compounds of interest were separated before introduction into the instrument source. The electrospray source was operated in negative polarity, and data were acquired in multiple reaction monitoring (MRM) mode with a minimum of 10 scans per peak. Prior to analysis, optimal voltages for both ionization and collision induced disassociation were determined by direct infusion. Analysis time for this process resulted in an approximate 9-minute cycle time.

## 4.2 Necropsies

A total of 24 animals (13 small mammals and 11 birds) (Table 1) were collected from Holloman Lake in 2024 and euthanized prior to undergoing necropsies and microscopic analyses of all their organs at the New Mexico Department of Agriculture Veterinary Diagnostic Services (VDS). PFAS screening of their livers and/or muscles was also conducted.

All gross necropsies and microscopic examinations of organ tissues were conducted by VDS pathologists Drs. John Ragsdale and Teresa Garcia. Necropsy reports included organ weights, together with findings of abnormalities listed by organ.

## 4.3 Bird Nest Monitoring

Nest searches were conducted weekly or biweekly from May through July 2024 along the accessible shoreline of Holloman Lake and in the uplands. Nests were geo-referenced and monitored to determine reproductive outcome to the extent possible.

## 4.4 Statewide Waterfowl Hunting Risk Assessment

A total of 47 avian tissue samples were sent to Eurofins for establishing a contamination profile specific to Holloman Lake and for PFAS pre-screening of waterfowl from wetlands around New Mexico. Of the 47 samples, 19 were from individual birds collected from 2021 to 2023 at Holloman Lake. The remaining 28 samples were from waterfowl collected at other wetlands around New Mexico. The majority of samples were pooled (or composite) samples that each consisted of several birds belonging to the same feeding guild (dabbling ducks, diving ducks, grazers) and, in most cases, from the same region of New Mexico, while also covering one of several time periods since the 1990s. The 47 samples were prepared from waterfowl livers, hearts, and muscles cryogenically preserved in liquid nitrogen and archived at the MSB. A limitation of the non-Holloman sample PFAS screening was that most of the waterfowl specimens archived at MSB are from northwestern New Mexico.

MSB also prepared and widely distributed a flyer to enlist the assistance of hunters from around New Mexico, asking for donations of (1) frozen carcasses that had been breastested out or (2) at least 4 grams of fresh-frozen liver and one frozen wing from each duck, in separate sealed bags, labeled with date and locality. Volunteer participants were asked to fill out an online form with their contact information for follow-up instructions on how to participate. This critical additional effort started just prior to the expiration of DBS&A's contract with NMED.

## 4.5 Oryx Hunting Risk Assessment

DBS&A and MSB could not enlist the participation of White Sands Missile Range for acquiring oryx samples from harvested animals. However, owners of the Walker Ranch (adjacent to Holloman Lake and home to a large oryx herd) were contacted, as were Major Wildlife Studios (a Las Cruces area taxidermist that processes many oryx monthly), and a Las Cruces meat processor that deals with hunter-collected oryx. These entities expressed early support for this project, and were projected to be the means of future sample collection.

# 5. Results and Discussion

## 5.1 PFAS Fate and Transport

Previous investigations of soil and groundwater indicate that the most significant PFAS source areas at Holloman AFB are the firefighting training area northeast of the main base and the evaporation pond used to test firefighting equipment in the West Area of the main base (DBS&A, 2022). PFAS released to soil at these locations (and potentially other source areas not yet investigated) likely migrated vertically through the vadose zone and impacted groundwater in the basin fill aquifer at and downgradient of the areas (DBS&A, 2022). The USAF investigation of the base-wide sewer system indicated that the sewer was probably leaking, and sampling confirmed that wastewater contained PFAS, making this another source of PFAS contamination in groundwater (DBS&A, 2022). Wastewater was also discharged directly to the now defunct unlined sewage lagoons and eventually to Lake Holloman before the WWTP was constructed in 1996 (DBS&A, 2022). After 1996, treated wastewater (containing PFAS) was discharged to Lagoon G, eventually reaching Lake Holloman (DBS&A, 2022). During a part of this time, treated effluent from the WWTP was used to water the Holloman AFB golf course (DBS&A, 2022). The initial assessment conducted by the USAF in 2017 identified impacts to soil, surface water, and groundwater. The USAF had not determined the extent of PFAS contamination at the base, but impacts reported at Lake Holloman likely extended off-site beyond the lake (DBS&A, 2022).

Ongoing analyses of data collected in 2024 show that surface water and soil contamination may reflect contamination by three (instead of just two) different generations of AFFFs. Sorption of PFAS from surface water to soils was primarily influenced by the length of the fluorinated chain, as expected based on published studies elsewhere (e.g., Fabregat-Palau et al., 2024). Due likely to a combination of factors (e.g., evaporation, a dilution effect from the input of less contaminated effluent at the north outfall), plants and animals collected in the wetland

appeared to be much less contaminated than biotas using the main body of the lake and its shoreline. Particularly low levels of PFAS contamination were detected in the western mosquitofish (*Gambusia affinis*) and the variegated meadowhawk (*Sympetrum corruptum*), both collected from the wetland. PFOS concentrations measured in two composite mosquitofish samples averaged 77 ng/g, while PFOS was detected in the meadowhawk, a dragonfly, at a concentration of only 1.1 ng/g.

PFAS concentrations in soil decreased rapidly to background levels at a distance of 200 meters from the shoreline along both transects but increased again at some of the most distant sampling locations. The rebound in PFAS concentrations was particularly notable at the end of the southern transect (NE4), 900 meters from the shoreline. At that sampling location, soils were found to have a PFOS concentration of 710 ng/g, greater than the concentration found at the edge of the lake along the same transect. Historical aerial and LANDSAT imagery revealed the explanation for this finding. The end of NE4 was shown to correspond to a ghost wetland, where dense vegetation (indicated by a normalized difference vegetation index [NDVI] value of 0.19) existed in 1996, but conditions have now reverted to desert uplands (Photograph 3).



**Photograph 3. View to the east from the end of Transect NE-4, 900 meters northeast of the shoreline. A few iodine bushes and saltcedars are all that remain from a past contaminated wetland that has now almost completely reverted to desert vegetation.**

Historical imagery further showed the past existence of an overflow spillway and ditch connecting the wastewater storage lagoons to the wetland. Further analysis of the transect

sampling data is forthcoming, but air transport of contaminated dust was ruled out as a mechanism responsible for the contamination of wildlife in the uplands. Instead, historical wastewater transport and possibly groundwater discharge may be more important. LANDSAT imagery of the study area with the ghost wetland is shown in Figure 2.

## 5.2 Contamination Profiles

Two degradation products of 6:2 FTS, the short carbon-chain perfluorocarboxylic acids PFHxA (six carbons) and PFPeA (five carbons), were the dominant PFAS in surface water in the lake. In contrast, PFOS was the main PFAS found in sediments along the shoreline. PFOS was the most abundant PFAS found in nearly all biological samples (except in some plants in the freshwater wetland and the uplands). Examples of contamination profiles are shown in Figures 3 through 8.

Among plants, there was a striking difference in the contamination profiles of saltcedar, fourwing saltbush (*Atriplex canescens*), and iodine bush (*Allenrolfea occidentalis*) along the main body of the lake (with PFOS dominant and overall PFAS concentrations much higher) versus southern cattail and fleabane in the wetland or saltbush in the uplands. A possible explanation is that saltcedar, saltbush, and iodine bush growing along the shore of the lake might reach the water table, whereas the other plants do not. As wetland plants, cattail and marsh fleabane in particular are both characterized by shallow, subsurface rhizomes as their root system (Chen et al., 2024; Nature Collective, 2025).

## 5.3 Bioaccumulation

High PFAS levels were detected in nearly all the biological samples from Holloman Lake analyzed in 2024, confirming contamination of the entire ecosystem from algae and terrestrial plants to macroinvertebrates, mammals, birds, and reptiles (Appendix A). PFOS was the most abundant PFAS congener in all animal tissue samples. The highest PFOS concentrations recorded to date are listed in Table 2.

PFAS contamination of wildlife was detected south and southeast of Holloman Lake. Two salvaged specimens found along US 70, a coyote and a western coachwhip—both killed by vehicle traffic—exhibited PFOS tissue concentrations of 640 ng/g ww (muscle) and 6,800 ng/g ww (liver), respectively.

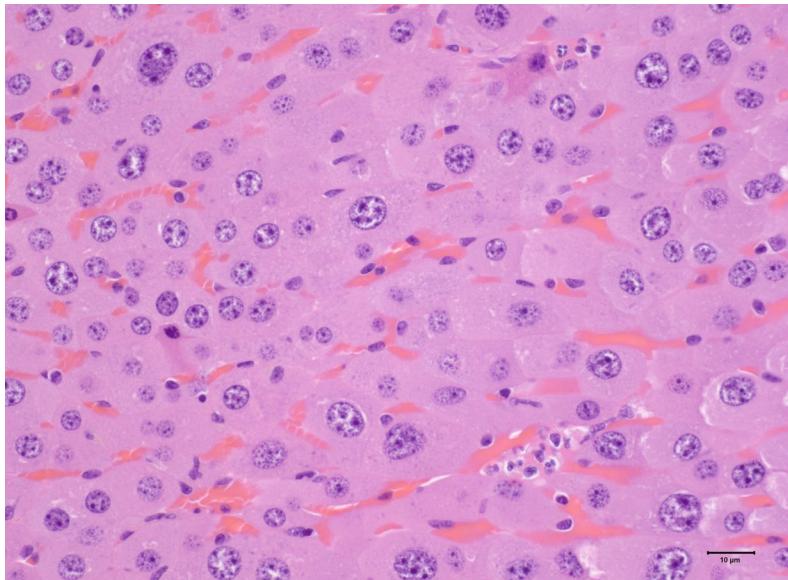
## 5.4 PFAS Ecological Toxicity

### 5.4.1 Necropsies

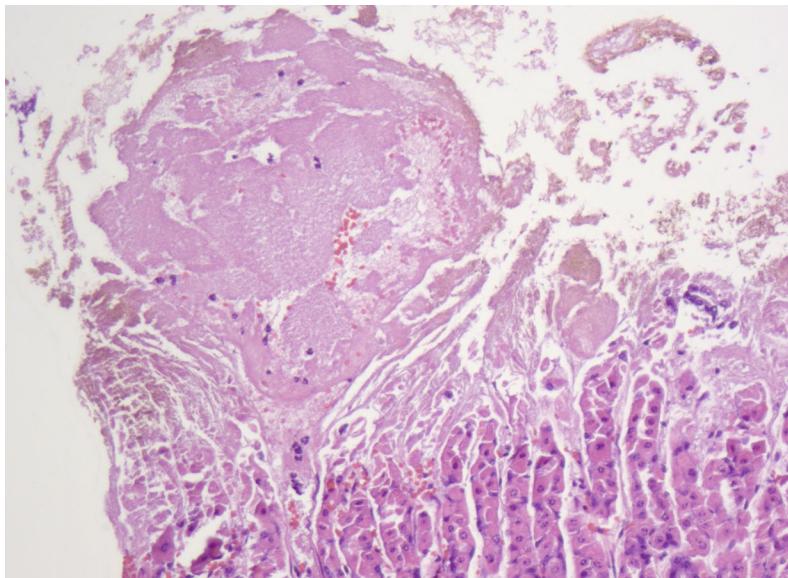
Results of the necropsies are summarized in Table 3. Complete results are provided in Appendix B.

All of the animals necropsied for this study were found to have PFOS concentrations greater than 1,000 ng/g in their livers or muscles. Normal tissues in several migratory birds present at Holloman Lake for only part of the year, two red-winged blackbirds (*Agelaius phoeniceus*) and two common yellowthroats (*Geothlypis trichas*), showed that acute, time-limited exposure does not necessarily lead to observable lesions at the organ or tissue level. The same was true with some of the rodents, all of which are year-round residents at Holloman Lake but also short-lived animals.

Possible abnormalities related to PFAS exposure included liver microgranulomas, spleen and adrenal hyperplasia, and gastric ulcers (Photographs 4 and 5), though these possible signs of toxicity can only be firmly established by also including a control group in future research activities. Possible diffuse cortical hypertrophy of the adrenal gland was discovered in particular in one deer mouse (*Peromyscus maniculatus*) with a PFOS concentration of 290 ng/g in its muscle tissues. Enlarged cells, the presence of anisocytosis (differing cell size), anisokaryosis (differing nuclear size), and multinucleated cells were most consistent with the diagnosis of diffuse cortical hypertrophy (Brändli-Baiocco et al., 2018). However, these same changes are not described in the context of cortical hypertrophy in guidelines from the International Harmonization of Nomenclature and Diagnostic Criteria for Lesions in Rats and Mice. Diffuse adrenocortical hypertrophy is typically caused by increased adrenocorticotropic hormone (ACTH) production—either due to stress or disease, or exogenously administered ACTH (Brändli-Baiocco et al., 2018). Although pollutants that inhibit steroid synthesis can cause cortical hypertrophy of the adrenal gland, they typically also cause increased vacuolation, not observed in the deer mouse that was necropsied.



**Photograph 4.** Possible diffuse adrenocortical hypertrophy in a deer mouse (*Peromyscus maniculatus*) from Holloman Lake. Anisocytosis, anisokaryosis, and multinucleation can all be observed in the adrenal cortex of this rodent.



**Photograph 5.** Multiple punctate gastric erosions/ulcers in a Merriam's kangaroo rat. The ulcers resulted in blood loss into the gastrointestinal tract. The underlying cause could not be determined, as there was no evidence of inflammation, infectious organisms, neoplasia, or parasites. Starvation and/or stress could not be ruled out.

A Merriam's kangaroo rat (*Dipodomys merriami*) with one of the highest PFOS concentrations recorded at Holloman Lake (94,000 ng/g ww in liver) showed a dry hypodermis during the postmortem gross examination. It appeared dehydrated, and the stomach, small intestine, and large intestine were filled with dark red to black digested blood. Histopathology showed multifocal necrosis of the glandular epithelium of the mucosa of the stomach that varied in thickness. The foci of necrosis were filled with necrotic debris, fibrin, hemorrhage, and hemoglobin-breakdown pigments. The submucosa associated with the mucosal epithelial necrosis was edematous. The adjacent gastric glandular epithelium was degenerate with hemorrhage in the associated lamina propria. No obvious underlying cause for the ulcers could be determined.

As indicated by O'Rourke et al. (2024a), it may be challenging to establish a definite link between PFAS exposure and disease in field studies due to many confounding variables with possible impacts on animal health and survival. An association between immune system health and environmentally relevant concentrations of PFCAs and PFSAs has been reported, with PFOA and PFOS concentrations significantly higher in sea otters (*Enhydra lutris*) that died of infectious disease compared to non-diseased animals (Kannan et al., 2006). Many of the animals necropsied had endoparasites, but so do wild rodents and birds in general (e.g., Mohammadi et al., 2022; Parsa et al. 2023).

#### 5.4.2 Monitoring of Breeding Success

Since 2021, a total of 11 bird species have been documented breeding at Holloman Lake. These species consist of the Swainson's hawk (*Buteo swainsoni*), American avocet (*Recurvirostra americana*), black-necked stilt (*Himantopus mexicanus*), killdeer (*Charadrius vociferus*), snowy plover (*Charadrius nivosus*), white-winged dove (*Zenaida asiatica*), Say's phoebe (*Sayornis saya*), western kingbird (*Tyrannus verticalis*), northern mockingbird (*Mimus polyglottos*), red-winged blackbird, and common yellowthroat.

Nest searches were conducted from May through July 2024. A total of 10 shorebird nests were found and monitored for the rest of the breeding season. More nests likely occurred in shoreline areas with restricted access. All four of the monitored black-necked stilt nests failed, as did the two American avocet nests. A snowy plover nest succeeded, with three juveniles observed together with an adult. Two killdeer juveniles were observed at two different locations, though at least one of the monitored nests failed. At the other killdeer nest, two eggs never hatched, while another disappeared and a hatchling was found dead next to the nest, with

no evidence of predation (Photograph 6). In the uplands, a Swainson's hawk nest produced one fledgling from an observed brood of two nestlings.



**Photograph 6. Killdeer hatchling found dead within 1 meter of its nest in June 2024.**

The dead killdeer hatchling could not be necropsied, but one tissue sample was found to have a PFOS concentration of 48,000 ng/g, the highest PFAS concentration recorded in any bird during this study. The predicted no-effect concentration (PNEC) and toxicity reference value (TRV) derived by Newsted et al. (2005) for PFOS in egg yolk (based on acute and chronic laboratory exposure in northern bobwhite quail [*Colinus virginianus*] and mallard [*Anas platyrhynchos*]) are 1000 and 1700 ng/g, respectively.

A Say's phoebe (*Sayornis saya*) nest with two eggs was discovered on June 3, 2024 on a shelf in an abandoned shed at the northern end of Holloman Lake. As the eggs had not hatched more than two months later, they were collected on July 16, 2024 and one of them was analyzed for PFAS. PFOS eggshell concentration was found to be 1,500 ng/g, more than 5 times greater than the value associated with a 20 percent decrease in hatching success in a population of tree swallows in Minnesota and Wisconsin (Custer et al., 2014).

## 5.5 Statewide Waterfowl Hunting Risk Assessment

The 47 waterfowl tissue samples used for the preliminary statewide waterfowl hunting risk assessment are listed in Table 4, together with information on species and tissue type composition, collecting location, and PFOS concentration. Of the 47 samples, 19 represented single individual birds from Holloman Lake. These 19 birds exhibited a distinctive contamination profile based on the specific proportions of PFAS analytes detected in their tissues (Figure 9). As

with other wildlife from Holloman Lake, PFOS concentrations were highest by at least an order of magnitude, followed by PFHxS concentrations. PFOA concentrations typically averaged another order of magnitude lower than PFHxS concentrations, while PFHpS could also be abundant in tissue samples at more variable concentrations.

PFOS concentrations above 100 ng/g were found in 25 (89 percent) of the 28 non-Holloman samples (Table 4). In nearly half of the 28 samples, PFOS concentrations exceeded 500 ng/g—even reaching 1,000 ng/g in two instances—indicating high (or very high) contamination in at least some waterfowl that were represented in those samples (Table 4). None of the composite non-Holloman samples had PFOS concentrations below 100 ng/g. Results indicated waterfowl PFAS contamination in waterfowl in northwestern New Mexico and southeastern New Mexico in particular, though the contamination profiles appeared to differ from those found at Holloman Lake, with PFHxS concentrations low and long-chain PFCAs relatively more abundant (Figure 9). A red-breasted merganser (*Mergus serrator*) collected south of Rincon along the Rio Grande was also found to have a mean heart, liver, and muscle PFOS concentration of 750 ng/g, but PFHxS concentration was lower than perfluorodecanoic acid (PFDA) and PFOA concentrations.

PFAS screening of the 28 non-Holloman waterfowl samples should be viewed as an initial step to help guide a more robust, statewide waterfowl hunting risk assessment. More samples are being prepared to expand this effort.

## 5.6 Large Game Risk Assessment

To assess PFAS levels in mammalian game species potentially using Holloman Lake as a water/food resource, MSB has begun obtaining oryx samples for PFAS testing. Populations in and around the Holloman Lake area will be included, in addition to more distant populations from the Armendaris Ranch and Jornada Basin for an indication of background contamination levels. At the time of this report, MSB projected the collection and testing of approximately 30 to 50 oryx in 2025.

With assistance from individual licensed hunters, two oryx liver and muscle samples have already been tested from the following two animals:

- Specimen MSB:Mamm:341801: New Mexico, Otero County, Culp Canyon
- Specimen MSB:Mamm:348125: New Mexico, Otero County, White Sands Missile Range, Hunt Unit 19, Rhodes Canyon

Five more oryx specimens donated to MSB are available for PFAS testing:

- Specimen MSB:Mamm:196600: New Mexico
- Uncataloged specimen: New Mexico, Otero County, White Sands Missile Range, Hunt Unit 19, Rhodes Canyon
- Uncataloged specimen: Obtained from Major Wildlife Studio, Las Cruces, New Mexico
- Uncataloged specimen: New Mexico, Doña Ana County, San Andres Mountains
- Uncataloged specimen: New Mexico, Otero County. 23.5 km SE Orogrande

## 6. Conclusions and Recommendations

Extraordinary levels of PFAS contamination have been found in wildlife at Holloman Lake. Two Merriam's kangaroo rats collected in 2024 exhibited liver PFOS concentrations of 120,000 ng/g and 110,000 ng/g, respectively. Based on published studies, these concentrations are the highest reported in any wild animals to date, other than a wood mouse (*Apodemus sylvaticus*) liver sample near a fluorochemical plant in Belgium (Hoff et al., 2004). One saltcedar composite tissue sample from Holloman Lake was also found to have a PFOS concentration of 30,000 ng/g, an apparent world record for plants. Results from the ecological research conducted in 2024 are highly suggestive of ecological toxicity at Holloman Lake, while movements of waterfowl and large mammals indicate a likely risk associated with hunting and the consumption of contaminated game meat outside the immediate area around Holloman Lake. In the case of waterfowl, preliminary results of PFAS screening from other wetlands around New Mexico (but primarily in the northwestern part of the state) show surprisingly high contamination levels that should be further investigated. Some of the funding for this research was saved for testing of more samples with help from hunters recruited for this effort, particularly in areas of New Mexico poorly represented in the specimen collection at MSB.

High levels of contamination were found in bird eggs and in a hatchling found dead next to its nest. Because PFAS research on laboratory animals has shown impairment of both reproduction and development (Witt et al., 2024), the very high rate of nesting failure in shorebirds at Holloman Lake also needs to be investigated in relation to PFAS contamination levels, with monitoring of breeding success at Bitter Lake National Wildlife Refuge for a comparison. Necropsies of highly contaminated rodents from Holloman Lake revealed liver abnormalities such as aggregates of enlarged hepatocytes, in addition to spleen hyperplasia and gastric ulcers.

A definite link to PFAS exposure cannot be established without also including a control group from a nearby, non-contaminated site.

Specific recommendations include the following:

- Expand testing of waterfowl and oryx samples to better characterize the risk to hunters outside the immediate footprint of contamination at Holloman Lake/Holloman AFB.
- Conduct additional necropsies of rodents from Holloman Lake but also a nearby, uncontaminated site (control group) to statistically assess the significance of abnormalities detected during this study.
- Continue research on ecological toxicity at Holloman Lake and include the use of metabolic markers to identify early disease progression in short-lived species.
- Investigate the use of non-lethal tissue sampling methods to study and monitor wildlife at Holloman Lake.
- Monitor shorebird breeding success and implement a sampling protocol to determine hatching success in relation to egg PFAS concentrations, with monitoring of a control group of shorebirds at Bitter Lake National Wildlife Refuge.
- Investigate potential PFAS contamination of beef cattle raised in the Alamogordo and Holloman AFB area.
- Investigate bioaccumulation and community-wide transmission of PFAS using carnivores such as coyotes, badgers, and rattlesnakes
- Initiate a statewide monitoring program with surveys and PFAS monitoring for large game animals and other potential sentinel species.
- Continue to build partnerships with other organizations to expand monitoring and assess toxicity to wildlife and humans.

## References

- Air Force Civil Engineer Center (AFCEC). 2018. Swap complete: AF protects airmen, environment with new firefighting foam. Published June 21, 2018. <<https://www.afcec.af.mil/News/Article-Display/Article/1556282/swap-complete-af-protects-airmen-environment-with-new-firefighting-foam>>.
- Air Force Installation and Mission Support Center (AFIMSC). 2017. *Air Force response to PFOS/PFOA fact sheet*. November 2017.
- Agency for Toxic Substances and Disease Registry (ATSDR). 2021. *Toxicological profile for perfluoroalkyls*. Released May 2021.
- Beale, D.J., D. Limpus, G. Sinclair, U. Bose, N. Bourne, S. Stockwell, D.C. Lettoof, R. Shah, T.V. Nguyen, V. Gonzalez-Astudillo, C. Braun, A. Myburgh, B. Baddiley, T. Shimada, C. Limpus, and S. Vardy. 2024. Forever chemicals don't make hero mutant ninja turtles: Elevated PFAS levels linked to unusual scute development in newly emerged freshwater turtle hatchlings (*Emydura macquarii macquarii*) and a reduction in turtle populations. *Science of the Total Environment* 956: 176313. <<https://doi.org/10.1016/j.scitotenv.2024.176313>>.
- Brändli-Baiocco, A., E. Balme, M. Bruder, S. Chandra, J. Hellmann, M.J. Hoenerhoff, T. Kambara, C. Landes, B. Lenz, M. Mense, S. Rittinghausen, H. Satoh, F. Schorsch, F. Seeliger, T. Tanaka, M. Tsuchitani, Z. Wojcinski, and T.J. Rosol. 2018. Nonproliferative and proliferative lesions of the rat and mouse endocrine system. *Journal of Toxicologic Pathology* 31(3 Suppl):1S-95S.
- Buck, R.C., S.H. Korzeniowski, E. Laganis, and F. Adamsky. 2021. Identification and classification of commercially relevant per- and poly-fluoroalkyl substances (PFAS). *Integrated Environmental Assessment and Management* 17(5): 1045-1055.
- Chen, Z., N. Ryoji, and T. Shiro. 2024. The applicability of scanner method to investigate rhizosphere in wetlands. *Rhizosphere* 30: 100878.  
<<https://doi.org/10.1016/j.rhisph.2024.100878>>.
- Custer, C.M., T.W. Custer, H.L. Schoenfuss, B.H. Poganski, and L. Solem. 2012. Exposure and effects of perfluoroalkyl compounds on tree swallows nesting at Lake Johanna in east central Minnesota, USA. *Reproductive Toxicology* 33(4): 556-562. doi: 10.1016/j.reprotox.2011.01.005. PMID: 21296656.

Custer, C.M., T.W. Custer, P.M. Dummer, M.A. Etterson, W.E. Thogmartin, Q. Wu, K. Kannan, A. Trowbridge, and P.C. McKann. 2014. Exposure and effects of perfluoroalkyl substances in tree swallows nesting in Minnesota and Wisconsin, USA. *Archives of Environmental Contamination and Toxicology* 66(1): 120-38. doi: 10.1007/s00244-013-9934-0. PMID: 23860575.

Daniel B. Stephens & Associates, Inc. (DBS&A). 2022. *Phase 1 PFAS investigation report, Holloman Air Force Base and surrounding area, Otero County, New Mexico*. Prepared for the New Mexico Environment Department Hazardous Waste Bureau. June 30, 2022.

Fabregat-Palau, J., M. Vidal, and A. Rigol. 2021. Modelling the sorption behaviour of perfluoroalkyl carboxylates and perfluoroalkane sulfonates in soils. *Science of the Total Environment* 801: 149343. doi: 10.1016/j.scitotenv.2021.149343. PMID: 34418616.

Fenton, S.E., A. Ducatman, A. Boobis, J.C. DeWitt, C. Lau, C. Ng, J.S. Smith, and S.M. Roberts. 2020. Per- and poly-fluoroalkyl substance toxicity and human health review: Current state of knowledge and strategies for informing future research. *Environmental Toxicology and Chemistry* 40: 606–630.

Interstate Technology & Regulatory Council (ITRC). 2021. *Per- and polyfluoroalkyl substances technical and regulatory guidance*. December 2021.

Kannan, K., E. Perrotta, and N.J. Thomas. 2006. Association between perfluorinated compounds and pathological conditions in southern sea otters. *Environmental Science & Technology Journal* 40: 4943-4948.

Leeson, A., T. Thompson, H.F. Stroo, R.H. Anderson, J. Speicher, M.A. Mills, J. Willey, C. Coyle, R. Ghosh, C. Lebron, and C. Patton. 2021. Identifying and managing aqueous film forming foam-derived per- and polyfluoroalkyl substances in the environment. *Environmental Toxicology and Chemistry* 40(1): 24-36.

Mohammadi, A., A. Bozorgomid, M.M. Sedaghat, G. Mowlavi, M.R. Abai, and E. Mostafavi. 2022. Assessment of the endoparasite fauna amongst the rodents in Kurdistan Province, west of Iran. *Iranian Journal of Parasitology* 17(1):70-78. doi: 10.18502/ijpa.v17i1.9018. PMID: 36046563; PMCID: PMC9375714.

Nature Collective. 2025. Salt marsh fleabane (*Pluchea odorata*).  
<<https://naturecollective.org/plant-guide/details/salt-marsh-fleabane/#:~:text=Salt%>

20marsh%20fleabane%20reproduces%20both,carbohydrates%2C%20proteins%2C%20and%20nutrients>.

Newsted, J.L., P.D. Jones, K. Coady, and J.P. Giesy. 2005. Avian toxicity reference values for perfluorooctane sulfonate. *Environmental Science & Technology Journal* 39: 9357-9362. doi: 10.1021/es050989v.

O'Rourke, E., J. Hynes, S. Losada, J.L. Barber, M.G. Pereira, E.F. Kean, F. Hailer, and E.A. Chadwick. 2024a. Anthropogenic drivers of variation in concentrations of perfluoroalkyl substances in otters (*Lutra lutra*) from England and Wales. *Environmental Science & Technology Journal* 56: 1675-1687.

O'Rourke, E., S. Losada, J.L. Barber, G. Scholey, I. Bain, M.G. Pereira, F. Hailer, and E.A. Chadwick. 2024b. Persistence of PFOA pollution at a PTFE production site and occurrence of replacement PFASs in English freshwaters revealed by sentinel species, the Eurasian otter (*Lutra lutra*). *Environmental Science & Technology Journal* 58(23): 10195-10206. doi: 10.1021/acs.est.3c09405.

Parsa, F.R., S. Bayley, F. Bell, S. Dodd, R. Morris, J. Roberts, D. Wawman, S.R. Clegg, and J.C Dunn. 2023. Epidemiology of protozoan and helminthic parasites in wild passerine birds of Britain and Ireland. *Parasitology* 150(3): 297-310. doi: 10.1017/S0031182022001779. PMID: 36597822. PMCID: PMC10090598.

U.S. EPA. 2009. *Long-chain perfluorinated chemicals (PFCs) action plan*. December 30, 2009.

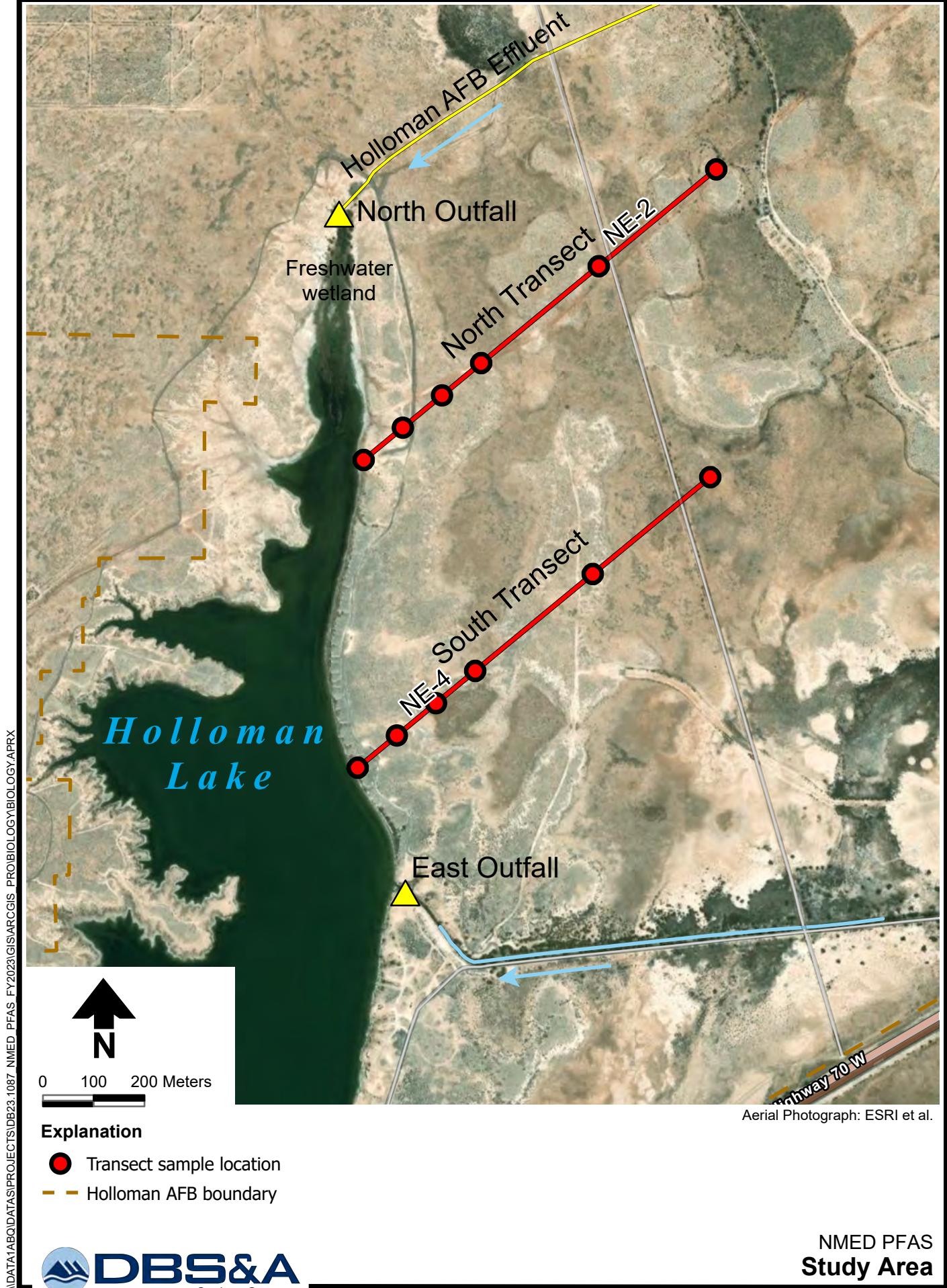
U.S. EPA. 2016. *Drinking water health advisory for perfluorooctanoic acid (PFOA)*. EPA 822-R-16-005. May 2016.

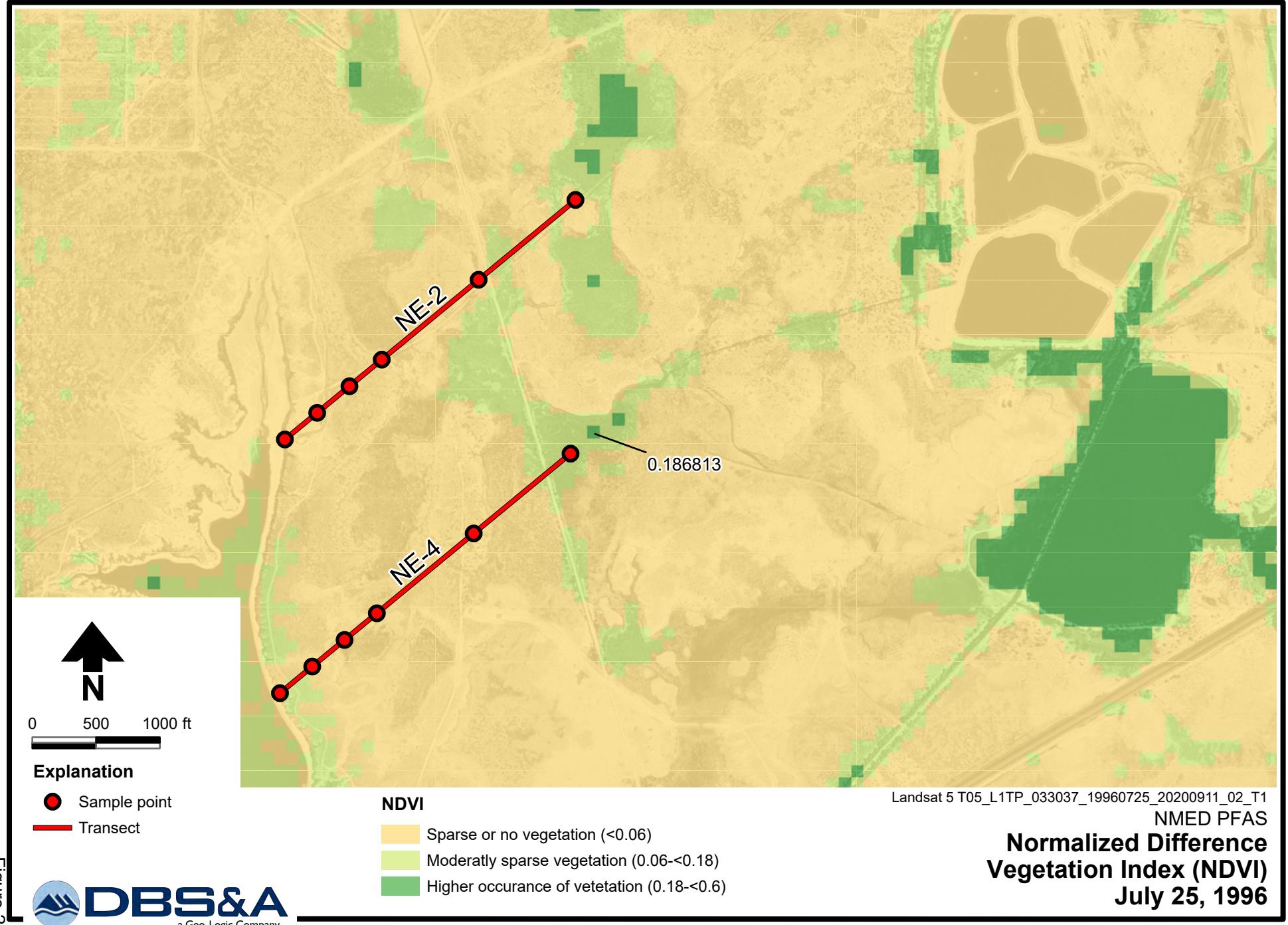
U.S. EPA. 2021. *Multi-industry per- and polyfluoroalkyl substances (PFAS) Study – 2021 preliminary report*. EPA-821-R-21-004. September 2021.

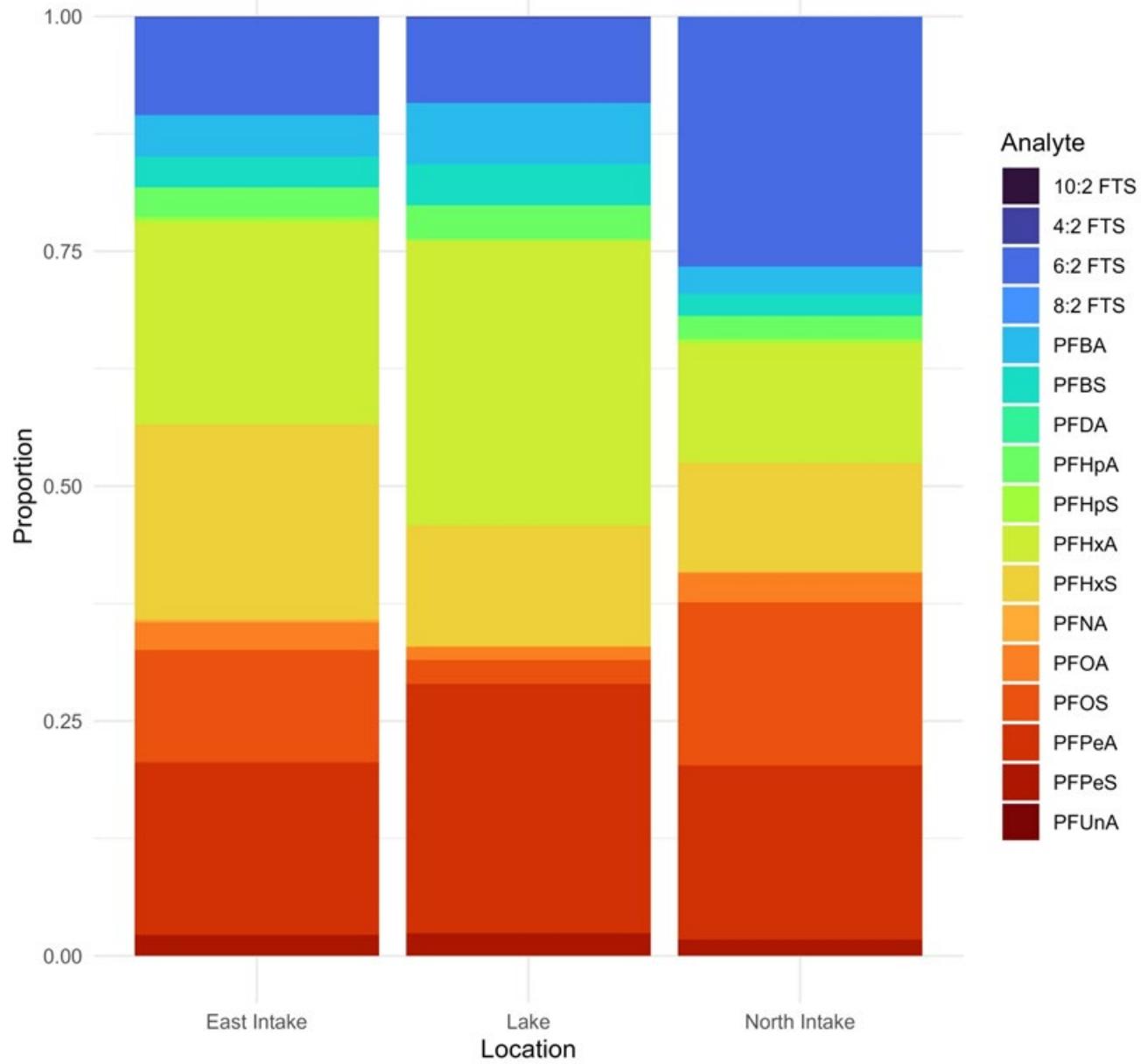
Witt, C.C., C.R. Gadek, J.-L.E. Cartron, M.J. Andersen, M.L. Campbell, M. Castro-Farías, E.F. Gyllenhaal, A.B. Johnson, J.L. Malaney, K.N. Montoya, A. Patterson, N.T. Vinciguerra, J.L. Williamson, J.A. Cook, and J.L. Dunnum. 2024. Extraordinary levels of per- and polyfluoroalkyl substances (PFAS) in vertebrate animals at a New Mexico desert oasis: Multiple pathways for wildlife and human exposure. *Environmental Research* 2024 May 15:249:118229. doi: 10.1016/j.envres.2024.118229. PMID: 38325785.

## Figures

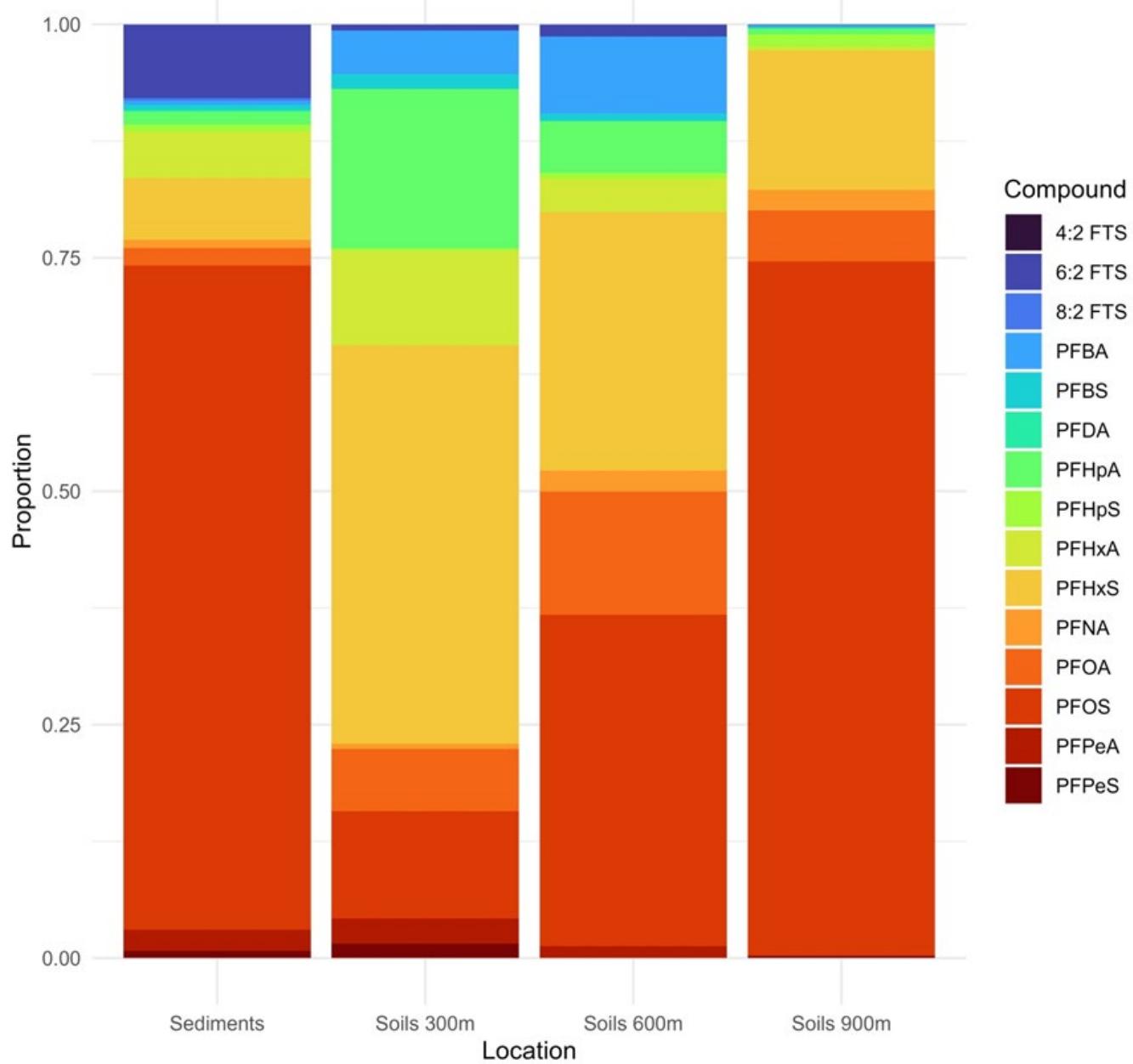
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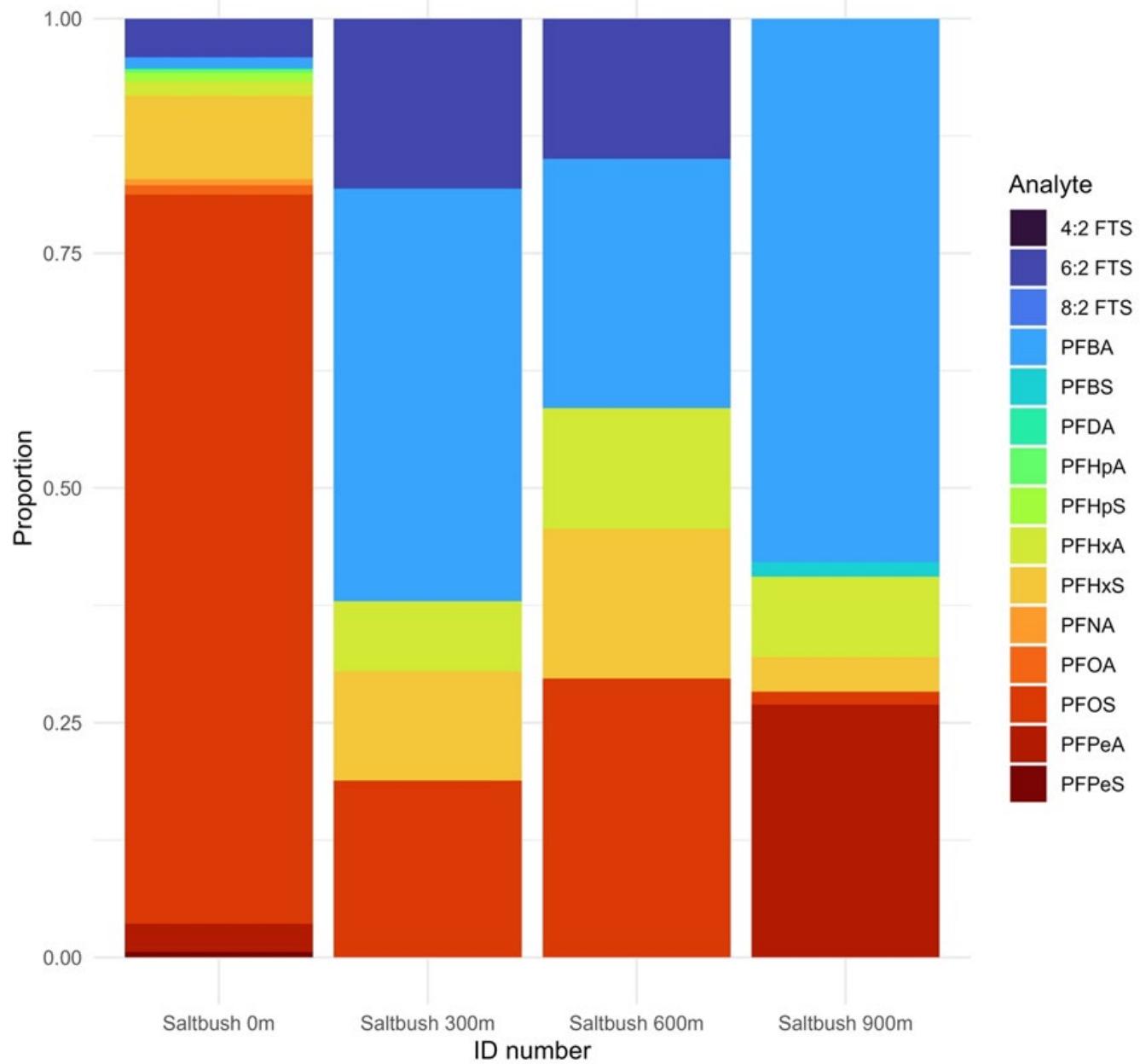


NMED PFAS  
**Proportions of PFAS Congeners  
Detected in Surface Water Samples**

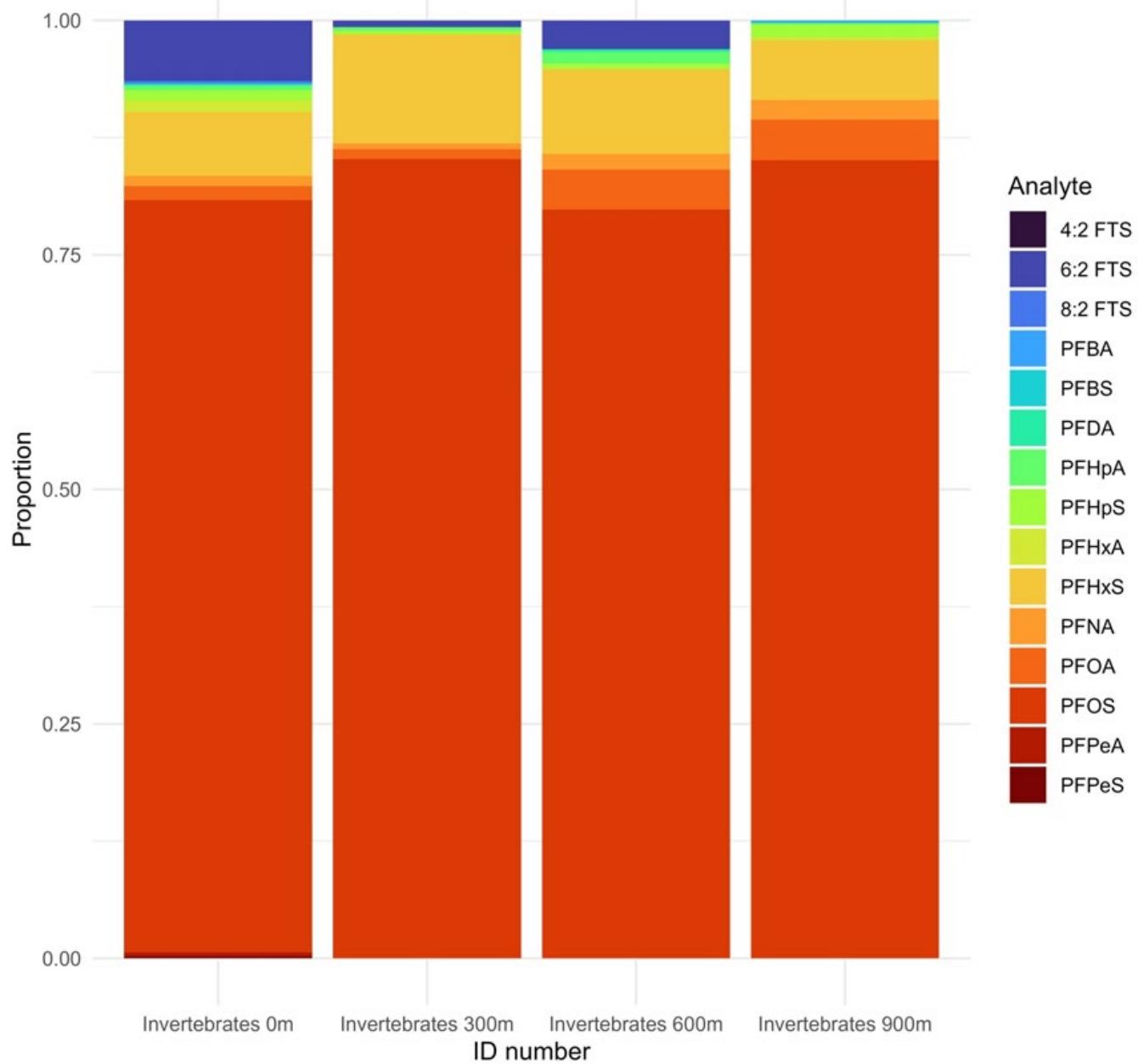


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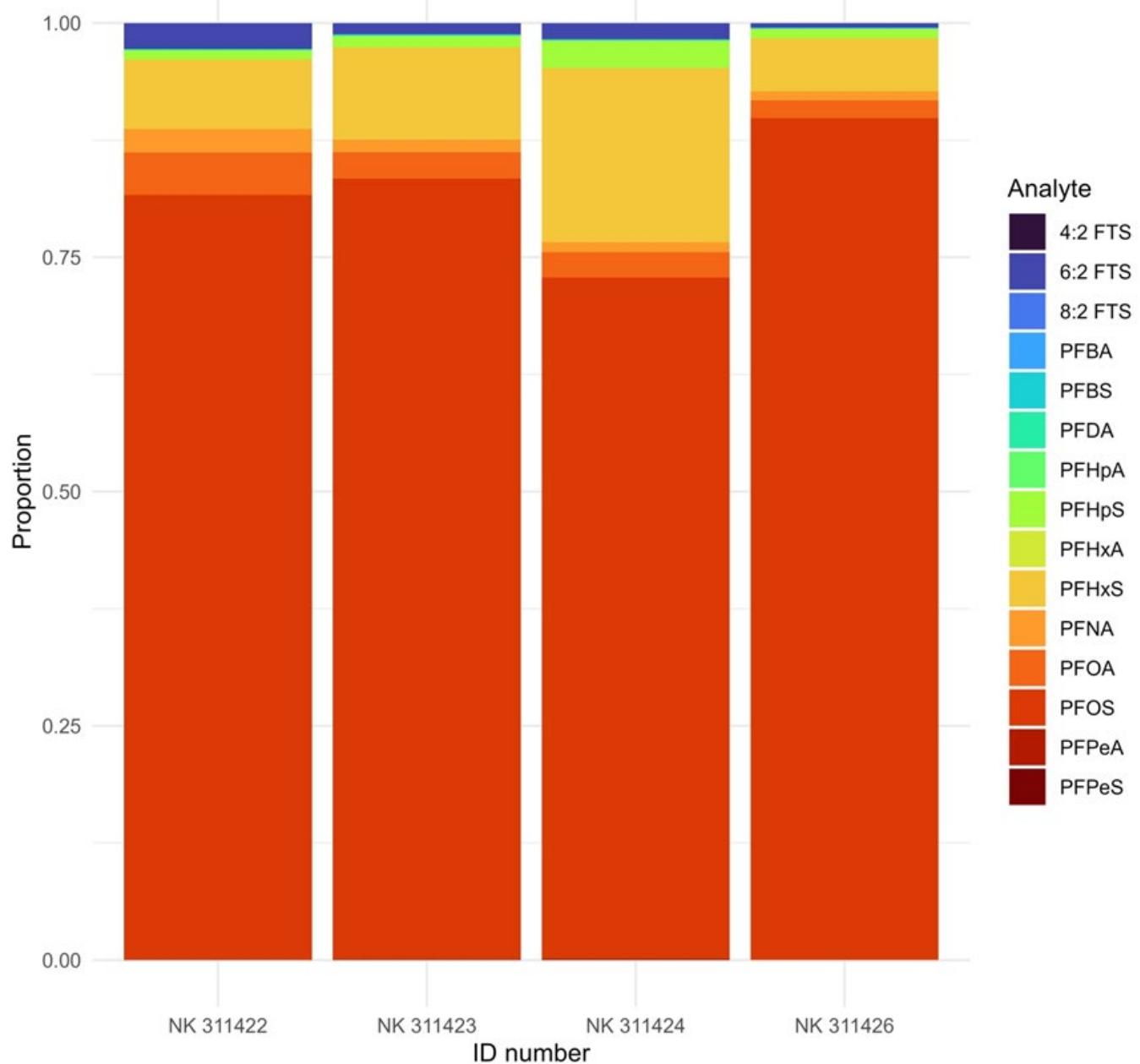
**Proportions of PFAS Congeners  
Detected in Soil Samples as a Function of  
Distance from the Shoreline along the  
Two Transects**



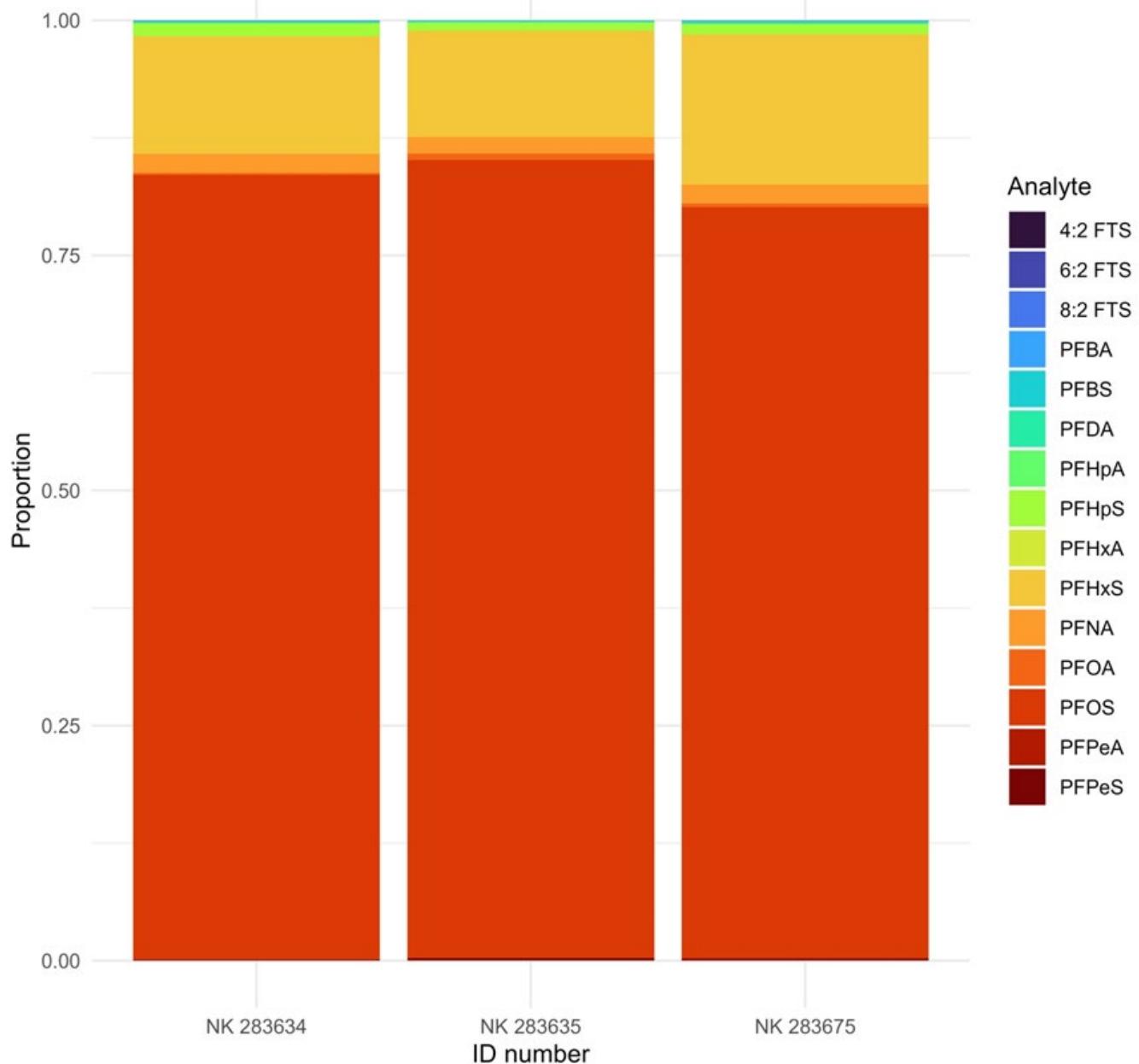
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Shoreline along the Two Transects



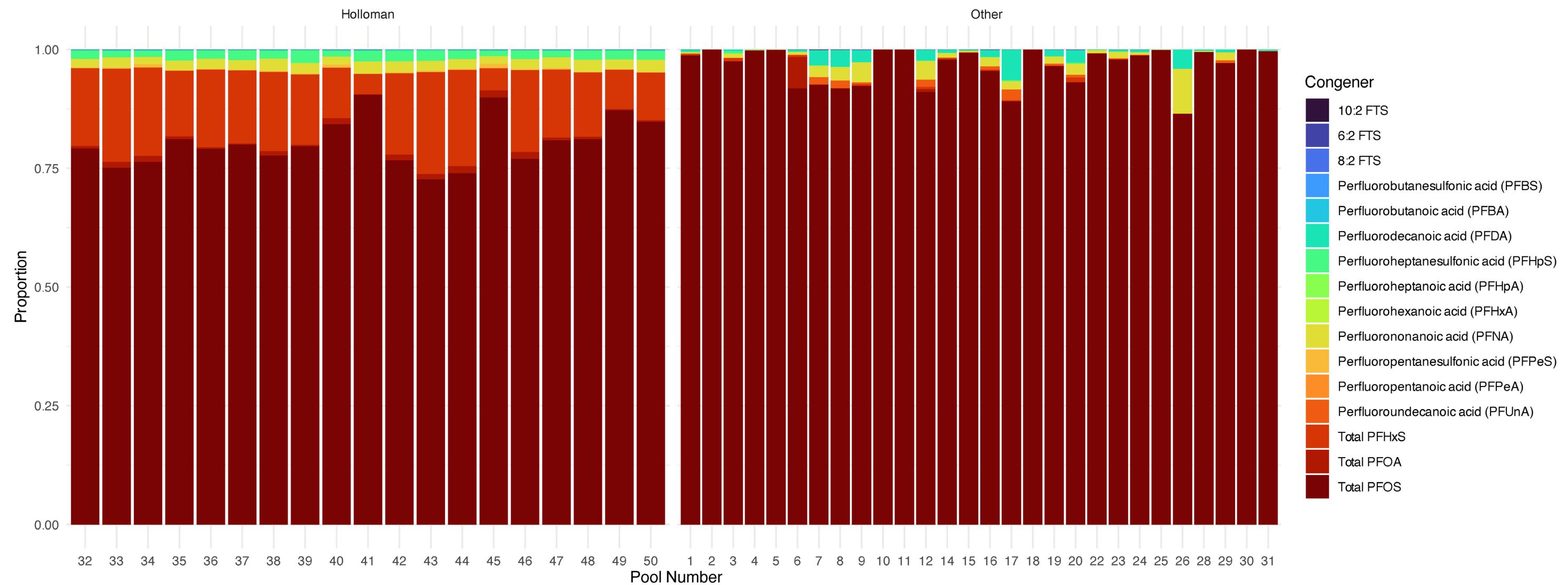
NMED PFAS  
**Proportions of PFAS Congeners  
Detected in Invertebrate Samples as a  
Function of Distance from the  
Shoreline along the Two Transects**



NMED PFAS  
Proportions of PFAS Congeners  
Detected in Four Representative  
House Mouse (*Mus musculus*)  
Liver Samples



NMED PFAS  
Proportions of PFAS Congeners  
Detected in Three Representative  
Green-Winged Teal (*Anas crecca*)  
Liver Samples



NMED PFAS  
Comparison of PFAS Contamination Profiles between Waterfowl Tissue Samples from Holloman Lake and Other Wetlands around New Mexico

## Tables

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**Table 1. Animals Included in Necropsy Study**

Common Name	Scientific Name	NK Number	Sex	Date	Method
<i>Mammals</i>					
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK311130	M	5/16/2024	Sherman
House mouse	<i>Mus musculus</i>	NK 311135	M	5/16/2024	Sherman
White-footed mouse	<i>Peromyscus leucopus</i>	NK311134	M	5/16/2024	Sherman
White-footed mouse	<i>Peromyscus leucopus</i>	NK 311139	M	5/16/2024	Sherman
Deer mouse	<i>Peromyscus maniculatus</i>	NK 311138	F	5/16/2024	Sherman
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311147	F	11/13/2024	Sherman
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311148	M	11/13/2024	Sherman
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311149	M	11/13/2024	Sherman
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311150	M	11/13/2024	Sherman
Deer Mouse	<i>Peromyscus maniculatus</i>	NK 311151	M	11/13/2024	Snap trap
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311152	F	11/13/2024	Snap trap
Chihuahuan desert pocket mouse	<i>Chaetodipus eremicus</i>	NK 311153	F	11/13/2024	Sherman
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311154	M	11/13/2024	Snap trap
<i>Birds</i>					
Red-winged blackbird	<i>Agelaius phoeniceus</i>	NK 284441	F	7/11/2024	Netted
Killdeer	<i>Charadrius vociferus</i>	NK 284442	M	7/11/2024	Shot
American avocet	<i>Recurvirostra americana</i>	NK 284443	M	7/11/2024	Shot
Red-winged blackbird	<i>Agelaius phoeniceus</i>	NK 284444	F	7/11/2024	Netted
Red-winged blackbird	<i>Agelaius phoeniceus</i>	NK 284445	F	7/11/2024	Netted
Red-winged blackbird	<i>Agelaius phoeniceus</i>	NK 284446	F	7/11/2024	Netted
Western kingbird	<i>Tyrannus verticalis</i>	NK 284447	F	7/11/2024	Netted
Western kingbird	<i>Tyrannus verticalis</i>	NK 284448	M	7/11/2024	Netted
Common yellowthroat	<i>Geothlypis trichas</i>	NK 284449	M	7/11/2024	Netted
Common yellowthroat	<i>Geothlypis trichas</i>	NK 284450	F	7/11/2024	Netted
Common yellowthroat	<i>Geothlypis trichas</i>	NK 284451	M	7/11/2024	Netted

**Table 2. Highest PFOS Tissue Concentrations Measured in Birds and Mammals from Holloman Lake and Upstream Wastewater Collection Ponds**  
**Page 1 of 2**

Common Name	Scientific Name	NK Identifier	PFOS Concentration (ng/g ww)	Substrate	Collection Site <sup>a</sup>	Collection Date
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311150	120,000	Liver	Holloman Lake	11/13/2024
		NK 311152	110,000	Liver	Holloman Lake	11/13/2024
White-footed mouse	<i>Peromyscus leucopus</i>	NK 31806	97,000	Liver	Lagoon G	8/16/1994
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311147	94,000	Liver	Holloman Lake	11/13/2024
		NK 311154	66,000	Liver	Holloman Lake	11/13/2024
House mouse	<i>Mus musculus</i>	NK 311422	65,000	Liver	Holloman Lake	10/30/2021
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311148	65,000	Liver	Holloman Lake	11/13/2024
House mouse	<i>Mus musculus</i>	NK 311426	57,000	Liver	Holloman Lake	10/30/2021
Killdeer <sup>b,c</sup>	<i>Charadrius vociferus</i>	NK 284439	48,000	Tissue	Holloman Lake	7/11/2024
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK311145	47,000	Liver	Holloman Lake	7/3/2024
		NK 311149	46,000	Liver	Holloman Lake	11/13/2024
House mouse	<i>Mus musculus</i>	NK 311423	44,000	Liver	Holloman Lake	10/30/2021
		NK3111424	43,000	Liver	Holloman Lake	10/30/2021
American wigeon	<i>Mareca americana</i>	NK 283623	38,000	Liver	Holloman Lake	1/15/2022
Spotted ground squirrel	<i>Xerospermophilus spilosoma</i>	NK 311146	24,000	Liver	Holloman Lake	7/3/2024
Killdeer	<i>Charadrius vociferus</i>	NK 283771	23,000	Liver	Holloman Lake	6/20/2022
Cactus mouse	<i>Peromyscus eremicus</i>	NK 311395	22,000	Liver	Holloman Lake	10/29/2021
Green-winged teal	<i>Anas crecca</i>	NK 283634	20,000	Liver	Holloman Lake	1/31/2022
Bufflehead	<i>Bucephala albeola</i>	NK 283693	20,000	Liver	Holloman Lake	1/30/2022
Northern shoveler	<i>Spatula clypeata</i>	NK 283666	17,000	Liver	Holloman Lake	1/8/2022
Chihuahuan pocket mouse <sup>c</sup>	<i>Chaetodipus eremicus</i>	NK311131	17,000	Liver	Holloman Lake	5/16/2024
Red-winged blackbird	<i>Agelaius phoeniceus</i>	NK284441	17,000	Liver	Holloman Lake	7/11/2024
House mouse	<i>Mus musculus</i>	NK 310921	16,000	Liver	Holloman Lake	5/5/2022
		NK 311887	15,000	Liver	Holloman Lake	5/5/2022
		NK 310884	14,000	Liver	Holloman Lake	3/4/2022

Notes are provided at the end of the table.

**Table 2. Highest PFOS Tissue Concentrations Measured in Birds and Mammals from Holloman Lake and Upstream Wastewater Collection Ponds**  
**Page 2 of 2**

Common Name	Scientific Name	NK Identifier	PFOS Concentration (ng/g ww)	Substrate	Collection Site <sup>a</sup>	Collection Date
Redhead	<i>Aythya americana</i>	NK 283668	14,000	Liver	Holloman Lake	1/8/2022
House mouse	<i>Mus musculus</i>	NK 310959	13,000	Liver	Holloman Lake	5/6/2022
		NK 310922	13,000	Liver	Holloman Lake	5/5/2022
Green-winged teal	<i>Anas crecca</i>	NK 283635	12,000	Liver	Holloman Lake	1/30/2022
House mouse	<i>Mus musculus</i>	NK 310883	12,000	Liver	Holloman Lake	3/4/2022
Red-winged blackbird	<i>Agelaius phoeniceus</i>	NK284445	12,000	Liver	Holloman Lake	7/11/2024
House mouse	<i>Mus musculus</i>	NK 310882	11,000	Liver	Holloman Lake	3/4/2022
Green-winged teal	<i>Anas crecca</i>	NK 283675	11,000	Liver	Holloman Lake	1/8/2022
House mouse	<i>Mus musculus</i>	NK 311886	10,000	Liver	Holloman Lake	5/5/2022
Northern pintail	<i>Anas acuta</i>	NK 283604	10,000	Liver	Holloman Lake	12/10/2021
Red-winged blackbird	<i>Agelaius phoeniceus</i>	NK284446	10,000	Liver	Holloman Lake	7/11/2024

<sup>a</sup> Unless otherwise indicated, all specimens from Holloman Lake were collected at the lake surface, along the shoreline, or at the mouth of the east intake.

<sup>b</sup> Salvaged specimen (hatchling found dead near its nest).

<sup>c</sup> Collected in the uplands near the southern end of the lake.

ng/g ww = Nanograms per gram, wet weight

**Table 3. Gross Necropsy and Histopathology Results**  
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Common Name	Scientific Name	NK Number	Findings
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311130	<b>Occasional, small aggregates of enlarged hepatocytes ("altered foci"), not unusual—at least in <i>Mus musculus</i>—and can increase with age and exposure to some carcinogens.</b>
House mouse	<i>Mus musculus</i>	NK 311135	No overt significant findings during gross necropsy and microscopic exam. In the small intestine, the lamina propria contains numerous lymphoid cells, but these are uniformly distributed; the number of lymphoid cells is judged to be within normal limits. The villus tips of the intestine are autolyzed, which makes interpretation difficult.
White-footed mouse	<i>Peromyscus leucopus</i>	NK311134	Mild, chronic, interstitial pneumonia. Mild to moderate, granulomatous hepatitis with intralesional trematodes (flatworms). <b>Lymphofollicular hyperplasia of the spleen, with the prominent germinal centers in the white pulp suggesting antigenic stimulation and marked erythropoiesis in the red pulp consistent with response to anemia.</b> Cestode within a lymph node adjacent to the pancreas. Occasional intracytoplasmic protozoal cysts (sarcocysts) in the tongue and in skeletal muscle surrounding bones.
White-footed mouse	<i>Peromyscus leucopus</i>	NK 311139	Extent and pattern of liver vacuolation within normal limits. Mild changes in the white and red pulp of the spleen likely within normal limits. Adrenal glands subjectively enlarged on gross necropsy but likely within normal limits and with no evidence of pathologic processes on microscopic exam (though anisocytosis, anisokaryosis, and multinucleated cells all noted).
Deer mouse	<i>Peromyscus maniculatus</i>	NK 311138	Frequent protozoal cysts (sarcocysts) within skeletal muscle fibers surrounding bones; occasional sarcocysts within the cytoplasm of skeletal muscle fibers in the wall of the esophagus and in the tongue. Liver vacuolation within normal limits for a post-prandial mouse; lymphoid cells surrounding a few bile ducts and a single small focus of necrosis in the liver considered incidental findings.

Notes are provided at the end of the table.

**Table 3. Gross Necropsy and Histopathology Results**  
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Common Name	Scientific Name	NK Number	Findings
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311147	<b>Multiple punctate gastric erosions/ulcers.</b> The foci of necrosis are filled with necrotic debris, fibrin, hemorrhage, and hemoglobin-breakdown pigments. The submucosa associated with the mucosal epithelial necrosis is edematous. The adjacent gastric glandular epithelium is degenerate with hemorrhage in the associated lamina propria. No evidence of inflammation, infectious organisms, neoplasia, or parasites that could have caused the gastric ulcer. Rare microgranulomas in the liver (i.e., rare random and multifocal small infiltrates of small numbers of macrophages and lesser numbers of lymphocytes in the liver that are occasionally associated with apoptotic hepatocytes) considered incidental findings
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311148	Endoparasitism: Small numbers of adult cestodes (tapeworms) in the lumen of the small intestine. Rare microgranulomas in the liver are considered incidental findings.
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311149	<b>Gastric ulcer</b> with focally extensive necrosis of the luminal aspect of the glandular epithelium of the mucosa of the stomach. The focus of necrosis is filled with necrotic debris, fibrin, hemorrhage, and hemoglobin-breakdown pigments. The submucosa associated with the mucosal epithelial necrosis is edematous. The adjacent gastric glandular epithelium is degenerate with hemorrhage in the associated lamina propria. No evidence of inflammation, infectious organisms, neoplasia, or stomach parasites that could have caused the gastric ulcer. Endoparasitism: The lumen of the small intestine contains small numbers of adult nematodes. Rare microgranulomas in the liver are considered an incidental finding.
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311150	No significant lesions. Rare microgranulomas in the liver are considered an incidental finding
Deer mouse	<i>Peromyscus maniculatus</i>	NK 311151	No significant lesions. Rare microgranulomas in the liver are considered an incidental finding.
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311152	Endoparasitism: Small numbers of sarcocysts in the skeletal muscle. Rare microgranulomas in the liver are considered an incidental finding.

Notes are provided at the end of the table.

**Table 3. Gross Necropsy and Histopathology Results**  
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Common Name	Scientific Name	NK Number	Findings
Chihuahuan desert pocket mouse	<i>Chaetodipus eremicus</i>	NK 311153	No significant lesions.
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	NK 311154	Endoparasitism: Small numbers of nematodes in the small intestine. Rare microgranulomas in the liver are considered an incidental finding.
Red-winged blackbird	<i>Agelaius phoeniceus*</i>	NK 284441	Normal tissue.
Killdeer	<i>Charadrius vociferus</i>	NK 284442	Endoparasitism: Lumen of the proventriculus contains two small degenerate helminths.
American avocet	<i>Recurvirostra americana</i>	NK 284443	Endoparasitism in the small intestine and ventriculus. Inflammation in the mesentery, fat adjacent to the spleen, and liver likely in response to the endoparasitism; moderate to severe lymphocytic orchitis.
Red-winged blackbird	<i>Agelaius phoeniceus</i>	NK 284444	Normal tissue.
Red-winged blackbird	<i>Agelaius phoeniceus</i>	NK 284445	Normal tissue.
Red-winged blackbird	<i>Agelaius phoeniceus</i>	NK 284446	Very mild inflammation in the portal areas of the liver.
Western kingbird	<i>Tyrannus verticalis</i>	NK 284447	Airsac nematode, nematodes in the small intestine (endoparasitism), and flukes within the portal vein (avian schistosomiasis). <b>Mild lymphohistiocytic interstitial nephritis</b> , possibly the result of parasite migration through a kidney.
Western kingbird	<i>Tyrannus verticalis</i>	NK 284448	Endoparasitism (adult tapeworm in the small intestine); testicular atrophy possibly related to seasonal cycle of testicular activity/inactivity.
Common yellowthroat	<i>Geothlypis trichas</i>	NK 284449	Normal tissue.
Common yellowthroat	<i>Geothlypis trichas</i>	NK 284450	Normal tissue.
Common yellowthroat	<i>Geothlypis trichas</i>	NK 284451	<i>Sarcocystis</i> species protozoal cysts in the skeletal muscle (sarcocystosis, rice breast disease). Small focus of nonsuppurative encephalitis likely associated with prior trauma to the area.

**Bold** indicates the most notable findings.

**Table 4. PFAS Screening of Composite and Individual Waterfowl Tissue Samples**  
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Sample No.	Species Name	Collection Locality	NK No.	Tissue Type	PFOS Concentration (ng/g)
1	Bufflehead ( <i>Bucephala albeola</i> ) Ring-necked duck ( <i>Aythya collaris</i> ) Ring-necked duck ( <i>Aythya collaris</i> ) Hooded merganser ( <i>Lophodytes cucullatus</i> ) Common merganser ( <i>Mergus merganser</i> ) Lesser scaup ( <i>Aythya affinis</i> ) Common goldeneye ( <i>Bucephala clangula</i> ) Ruddy duck ( <i>Oxyura jamaicensis</i> )	Fort Craig San Marcial San Marcial Watrous; 12 mi. W Mescalero Lake McAllister Lake Los Ojos area along Rio Chama Kirtland Air Force Base	5992 5995 5998 14474 14866 35807 35815 103113	Liver Liver Liver Liver Liver Heart, liver Heart, liver Liver	1,100
2	Snow goose ( <i>Chen caerulescens</i> )	Bosque de Apache NWR	9098	Liver	67
3	Northern shoveler ( <i>Spatula clypeata</i> )	Bosque del Apache NWR	2445	Liver	440
4	Redhead ( <i>Aythya americana</i> )	San Marcial	2444	Liver	530
5	Redhead ( <i>Aythya americana</i> ) Redhead ( <i>Aythya americana</i> ) Redhead ( <i>Aythya americana</i> ) Redhead ( <i>Aythya americana</i> )	Waterflow, San Juan County Waterflow, San Juan County Waterflow, San Juan County Waterflow, San Juan County	35658 35659 35660 35799	Liver Liver Liver Liver	650
6	Wood duck ( <i>Aix sponsa</i> ) American wigeon ( <i>Anas americana</i> ) Gadwall ( <i>Mareca strepera</i> ) American wigeon ( <i>Anas americana</i> ) American wigeon ( <i>Anas americana</i> ) Gadwall ( <i>Mareca strepera</i> ) Green-winged teal ( <i>Anas crecca</i> ) Wood duck ( <i>Aix sponsa</i> ) Green-winged teal ( <i>Anas crecca</i> )	Kirtland along San Juan River Kirtland along San Juan River Kirtland, Schmitt marsh Kirtland along San Juan River Kirtland along San Juan River Kirtland, Schmitt marsh North Shore Morgan Lake Kirtland, Schmitt property N shore Morgan Lake	35627 35628 35630 35632 35642 35649 35661 35803 35805	Heart, liver Heart, liver Heart, liver Heart, liver Heart, liver Heart, liver Heart, liver Heart, liver, muscle Heart, liver, muscle	1,000

Notes are provided at the end of the table.

**Table 4. PFAS Screening of Composite and Individual Waterfowl Tissue Samples**  
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Sample No.	Species Name	Collection Locality	NK No.	Tissue Type	PFOS Concentration (ng/g)
6 (cont.)	Wood duck ( <i>Aix sponsa</i> )	Kirtland, along San Juan River	35823	Heart, liver	1,000
	Gadwall ( <i>Mareca strepera</i> )	San Juan River	35824	Heart, liver	
	Gadwall ( <i>Mareca strepera</i> )	Kirtland, Schmitt marsh	35826	Heart, liver	
	Northern shoveler ( <i>Spatula clypeata</i> )	Fruitland along San Juan River	35833	Heart, liver	
	Mallard ( <i>Anas platyrhynchos</i> )	Kirtland, Schmitt marsh	35844	Heart, liver	
	Northern shoveler ( <i>Spatula clypeata</i> )	Kirtland, Schmitt marsh	35845	Heart, liver	
	Northern shoveler ( <i>Spatula clypeata</i> )	Kirtland, Schmitt marsh	35849	Heart, liver	
	Northern shoveler ( <i>Spatula clypeata</i> )	Kirtland, Schmitt marsh	35852	Heart, liver	
	Northern shoveler ( <i>Spatula clypeata</i> )	Kirtland, Schmitt marsh	35853	Heart, liver	
	Northern shoveler ( <i>Spatula clypeata</i> )	Kirtland, Schmitt marsh	35854	Heart, liver	
	Northern shoveler ( <i>Spatula clypeata</i> )	Kirtland, Schmitt marsh	35914	Heart, liver, muscle	
	Northern shoveler ( <i>Spatula clypeata</i> )	Near Bloomfield on San Juan River	35915	Heart, liver, muscle	
	Mallard ( <i>Anas platyrhynchos</i> )	Fruitland	35919	Heart, liver, muscle	
	Wood duck ( <i>Aix sponsa</i> )	Kirtland along San Juan River	35931	Heart, liver, muscle	
	American green-winged teal ( <i>Anas carolinensis</i> )	Kirtland, Schmitt marsh	35932	Heart, liver, muscle	
	Green-winged teal ( <i>Anas crecca</i> )	Kirtland, Schmitt marsh	35936	Heart, liver, muscle	
	Mallard ( <i>Anas platyrhynchos</i> )	Kirtland, Schmitt marsh	35937	Heart, liver	
	Northern pintail ( <i>Anas acuta</i> )	Kirtland along San Juan River	177463	Heart, liver, muscle	
	Mallard ( <i>Anas platyrhynchos</i> )	Kirtland along San Juan River	177464	Heart, liver, muscle	

Notes are provided at the end of the table.

**Table 4. PFAS Screening of Composite and Individual Waterfowl Tissue Samples**  
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Sample No.	Species Name	Collection Locality	NK No.	Tissue Type	PFOS Concentration (ng/g)
7	Bufflehead ( <i>Bucephala albeola</i> )	Kirtland along San Juan River	35626	Heart, liver	580
	Common merganser ( <i>Mergus merganser</i> )	Kirtland along San Juan River	35639	Heart, liver	
	Common merganser ( <i>Mergus merganser</i> )	Kirtland along San Juan River	35640	Heart, liver	
	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35644	Heart, liver	
	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35648	Heart, liver	
	Common merganser ( <i>Mergus merganser</i> )	Kirtland along San Juan River	35652	Heart, liver	
	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35653	Heart, liver	
	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35654	Heart, liver	
	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35655	Heart, liver	
	Common merganser ( <i>Mergus merganser</i> )	Kirtland along San Juan River	35656	Heart, liver	
	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35663	Heart, liver	
	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35668	Heart, liver	
	Bufflehead ( <i>Bucephala albeola</i> )	Kirtland along San Juan River	35798	Heart, liver, muscle	
8	Common merganser ( <i>Mergus merganser</i> )	Pena Blanca along Rio Grande	35625	Heart, liver	250
	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35646	Heart, liver	
	Common merganser ( <i>Mergus merganser</i> )	Pena Blanca along Rio Grande	35811	Heart, liver, muscle	
	Ring-necked duck ( <i>Aythya collaris</i> )	Pena Blanca along Rio Grande	35924	Heart, liver, muscle	
	Ruddy duck ( <i>Oxyura jamaicensis</i> )	Bitter Lake NWR	142004	Heart, liver	
	Bufflehead ( <i>Bucephala albeola</i> )	Bitter Lake NWR	142007	Heart, liver	
	Bufflehead ( <i>Bucephala albeola</i> )	Bitter Lake NWR	142009	Heart, liver	
9	Northern pintail ( <i>Anas acuta</i> )	Kirtland along San Juan River	35643	Heart, liver	350
	Mallard ( <i>Anas platyrhynchos</i> )	Albuquerque	100368	Liver	
	Gadwall ( <i>Mareca strepera</i> )	San Marcial	116458	Heart, liver	

Notes are provided at the end of the table.

**Table 4. PFAS Screening of Composite and Individual Waterfowl Tissue Samples**  
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Sample No.	Species Name	Collection Locality	NK No.	Tissue Type	PFOS Concentration (ng/g)
10	Snow goose ( <i>Chen caerulescens</i> )	Bitter Lake NWR	142478	Heart, liver, muscle	960
	Snow goose ( <i>Chen caerulescens</i> )	Bitter Lake NWR	142479	Heart, liver, muscle	
	Snow goose ( <i>Chen caerulescens</i> )	Bitter Lake NWR	170946	Heart, liver, muscle	
11	Redhead ( <i>Aythya americana</i> )	Bitter Lake NWR	100328	Liver	2.6
12	Common merganser ( <i>Mergus merganser</i> )	Pena Blanca along Rio Grande	35665	Heart, liver	280
	Common scoter ( <i>Melanitta nigra</i> )	Stubblefield Lake	165148	Heart, liver	
	Surf scoter ( <i>Melanitta perspicillata</i> )	Just West of Mountainair	165232	Liver	
13	Redhead ( <i>Aythya americana</i> )	Waterflow	35674	Heart, liver	640
	Redhead ( <i>Aythya americana</i> )	Waterflow	35676	Heart, liver	
	Redhead ( <i>Aythya americana</i> )	Waterflow	35677	Heart, liver	
	Redhead ( <i>Aythya americana</i> )	Waterflow	35679	Heart, liver	
	Redhead ( <i>Aythya americana</i> )	Waterflow along San Juan River	35832	Heart, liver, muscle	
	Redhead ( <i>Aythya americana</i> )	Waterflow	35925	Heart, liver, muscle	
14	Mallard ( <i>Anas platyrhynchos</i> )	Kirtland along San Juan River	35624	Heart, liver, muscle	570
	Wood duck ( <i>Aix sponsa</i> )	Kirtland along San Juan River	35672	Heart, liver	
	Wood duck ( <i>Aix sponsa</i> )	Kirtland along San Juan River	35673	Heart, liver	
	Wood duck ( <i>Aix sponsa</i> )	Kirtland along San Juan River	35678	Heart, liver	
	Wood duck ( <i>Aix sponsa</i> )	Kirtland along San Juan River	35680	Heart, liver	
	American wigeon ( <i>Anas americana</i> )	Kirtland along San Juan River	35890	Heart, liver, muscle	
	Wood duck ( <i>Aix sponsa</i> )	Kirtland along San Juan River	35898	Heart, liver, muscle	
	American green-winged teal ( <i>Anas carolinensis</i> )	Kirtland along San Juan River	35903	Heart, liver, muscle	
	Mallard ( <i>Anas platyrhynchos</i> )	Kirtland along San Juan River	35908	Heart, liver	
	Mallard ( <i>Anas platyrhynchos</i> )	Kirtland along San Juan River	35909	Heart, liver	
	Wood duck ( <i>Aix sponsa</i> )	Kirtland along San Juan River	35911	Heart, liver, muscle	
	American wigeon ( <i>Anas americana</i> )	Kirtland along San Juan River	35913	Heart, liver, muscle	

Notes are provided at the end of the table.

**Table 4. PFAS Screening of Composite and Individual Waterfowl Tissue Samples**  
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Sample No.	Species Name	Collection Locality	NK No.	Tissue Type	PFOS Concentration (ng/g)
15	Common merganser ( <i>Mergus merganser</i> )	Kirtland along San Juan River	35633	Heart, liver	340
	Common merganser ( <i>Mergus merganser</i> )	Waterflow along San Juan River	35636	Heart, liver	
	Bufflehead ( <i>Bucephala albeola</i> )	Kirtland	35647	Heart, liver	
	Ruddy duck ( <i>Oxyura jamaicensis</i> )	Kirtland along San Juan River	35650	Heart, liver	
	Ruddy duck ( <i>Oxyura jamaicensis</i> )	Kirtland	35651	Heart, liver	
	Common merganser ( <i>Mergus merganser</i> )	Kirtland along San Juan River	35666	Heart, liver	
	Common merganser ( <i>Mergus merganser</i> )	Waterflow along San Juan River	35667	Heart, liver	
	Common merganser ( <i>Mergus merganser</i> )	Kirtland along San Juan River	35669	Heart, liver	
	Common merganser ( <i>Mergus merganser</i> )	Kirtland along San Juan River	35670	Heart, liver	
	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35671	Heart, liver	
	Hooded merganser ( <i>Lophodytes cucullatus</i> )	Kirtland along San Juan River	35675	Heart, liver	
	Ring-necked duck ( <i>Aythya collaris</i> )	Waterflow along San Juan River	35681	Heart, liver	
	Common merganser ( <i>Mergus merganser</i> )	Kirtland along San Juan River	35828	Heart, liver	
	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35856	Heart, liver	
	Ring-necked duck ( <i>Aythya collaris</i> )	Waterflow	35891	Heart, liver, muscle	
	Hooded merganser ( <i>Lophodytes cucullatus</i> )	Along San Juan River	35892	Heart, liver, muscle	
	Ring-necked duck ( <i>Aythya collaris</i> )	Waterflow	35901	Heart, liver, muscle	
	Ring-necked duck ( <i>Aythya collaris</i> )	Waterflow	35902	Heart, liver, muscle	
	Ring-necked duck ( <i>Aythya collaris</i> )	Waterflow	35917	Heart, liver, muscle	
	Ring-necked duck ( <i>Aythya collaris</i> )	Waterflow	35920	Heart, liver, muscle	
16	Red-breasted merganser ( <i>Mergus serrator</i> )	S Rincon, along Rio Grande	35935	Heart, liver, muscle	750
17	Canada goose ( <i>Branta canadensis</i> )	Fruitland, along San Juan River	35958	Heart, liver, muscle	260

Notes are provided at the end of the table.

**Table 4. PFAS Screening of Composite and Individual Waterfowl Tissue Samples**  
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Sample No.	Species Name	Collection Locality	NK No.	Tissue Type	PFOS Concentration (ng/g)
18	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35791	Heart, liver, muscle	330
	Common goldeneye ( <i>Bucephala clangula</i> )	Waterflow along San Juan River	35792	Heart, liver, muscle	
	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35793	Heart, liver	
	Ring-necked duck ( <i>Aythya collaris</i> )	Waterflow along San Juan River	35800	Heart, liver	
	Ring-necked duck ( <i>Aythya collaris</i> )	Kirtland, San Juan River	35801	Heart, liver, muscle	
	Ring-necked duck ( <i>Aythya collaris</i> )	Waterflow along San Juan River	35802	Heart, liver	
	Canvasback ( <i>Aythya valisineria</i> )	Waterflow along San Juan River	35806	Heart, liver, muscle	
	Common goldeneye ( <i>Bucephala clangula</i> )	Kirtland along San Juan River	35816	Heart, liver	
	Canvasback ( <i>Aythya valisineria</i> )	Waterflow along San Juan River	35818	Heart, liver, muscle	
	Bufflehead ( <i>Bucephala albeola</i> )	Kirtland along San Juan River	35819	Heart, liver, muscle	
	Canvasback ( <i>Aythya valisineria</i> )	Waterflow along San Juan River	35825	Heart, liver	
	Hooded merganser ( <i>Lophodytes cucullatus</i> )	Flora Vista along Animas River	35827	Heart, liver	
	Ring-necked duck ( <i>Aythya collaris</i> )	Kirtland along San Juan River	35897	Heart, liver, muscle	
	Ring-necked duck ( <i>Aythya collaris</i> )	Kirtland along San Juan River	35906	Heart, liver, muscle	
	Hooded merganser ( <i>Lophodytes cucullatus</i> )	Flora Vista along Animas River	35907	Heart, liver, muscle	
	Hooded merganser ( <i>Lophodytes cucullatus</i> )	Kirtland	35927	Heart, liver, muscle	
	Canvasback ( <i>Aythya valisineria</i> )	Waterflow	35929	Heart, liver, muscle	
	Hooded merganser ( <i>Lophodytes cucullatus</i> )	Waterflow along San Juan River	35957	Heart, liver, muscle	
19	Northern pintail ( <i>Anas acuta</i> )	Kirtland along San Juan River	35804	Heart, liver, muscle	510
	Northern pintail ( <i>Anas acuta</i> )	Kirtland along San Juan River	35808	Heart, liver, muscle	
	Northern pintail ( <i>Anas acuta</i> )	Kirtland along San Juan River	35814	Heart, liver, muscle	
20	Redhead ( <i>Aythya americana</i> )	Waterflow	35876	Heart, liver, muscle	620
	Redhead ( <i>Aythya americana</i> )	Waterflow	35878	Heart, liver, muscle	
	Redhead ( <i>Aythya americana</i> )	Waterflow	35883	Heart, liver, muscle	
	Redhead ( <i>Aythya americana</i> )	Kirtland along San Juan River	35916	Heart, liver	
	Redhead ( <i>Aythya americana</i> )	Kirtland, along San Juan River	218166	Heart, liver, muscle	

Notes are provided at the end of the table.

**Table 4. PFAS Screening of Composite and Individual Waterfowl Tissue Samples**  
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Sample No.	Species Name	Collection Locality	NK No.	Tissue Type	PFOS Concentration (ng/g)
21	Mallard ( <i>Anas platyrhynchos</i> )	Kirtland	35875	Heart, liver, muscle	350
	Northern pintail ( <i>Anas acuta</i> )	Kirtland	35884	Heart, liver, muscle	
	Northern pintail ( <i>Anas acuta</i> )	Kirtland	35905	Heart, liver, muscle	
	Northern pintail ( <i>Anas acuta</i> )	Kirtland	35910	Heart, liver, muscle	
	Northern pintail ( <i>Anas acuta</i> )	Kirtland	35928	Heart, liver, muscle	
	American green-winged teal ( <i>Anas carolinensis</i> )	Kirtland	35930	Heart, liver, muscle	
	Green-winged teal ( <i>Anas crecca</i> )	Kirtland	218151	Heart, liver, muscle	
	Green-winged teal ( <i>Anas crecca</i> )	Kirtland	218152	Heart, liver, muscle	
	Green-winged teal ( <i>Anas crecca</i> )	Kirtland	218153	Heart, liver, muscle	
	Green-winged teal ( <i>Anas crecca</i> )	Kirtland	218156	Heart, liver, muscle	
	Green-winged teal ( <i>Anas crecca</i> )	Kirtland	218157	Heart, liver, muscle	
	Green-winged teal ( <i>Anas crecca</i> )	Kirtland	218158	Heart, liver, muscle	
22	Canvasback ( <i>Aythya valisineria</i> )	Waterflow along San Juan River	35817	Heart, liver, muscle	540
	Canvasback ( <i>Aythya valisineria</i> )	Waterflow	35921	Heart, liver, muscle	
	Canvasback ( <i>Aythya valisineria</i> )	Waterflow	35922	Heart, liver, muscle	
	Canvasback ( <i>Aythya valisineria</i> )	Waterflow	35923	Heart, liver, muscle	
	Lesser scaup ( <i>Aythya affinis</i> )	Kirtland along San Juan River	218164	Heart, liver, muscle	
23	Snow goose ( <i>Chen caerulescens</i> )	Kirtland	35877	Heart, liver, muscle	590
	Canada goose ( <i>Branta canadensis</i> )	Along San Juan River	218154	Heart, liver, muscle	
	Canada goose ( <i>Branta canadensis</i> )	ca. 11.5 km S Farmington	218155	Heart, liver, muscle	
	Canada goose ( <i>Branta canadensis</i> )	ca. 11.5 km S Farmington	218161	Heart, liver, muscle	
	Canada goose ( <i>Branta canadensis</i> )	ca. 11.5 km S Farmington	218162	Heart, liver, muscle	
	Canada goose ( <i>Branta canadensis</i> )	ca. 11.5 km S Farmington	218163	Heart, liver, muscle	
24	Redhead ( <i>Aythya americana</i> )	Des Moines, Union Co.	282630	Heart, liver, muscle	6.2

Notes are provided at the end of the table.

**Table 4. PFAS Screening of Composite and Individual Waterfowl Tissue Samples**  
**Page 8 of 9**

Sample No.	Species Name	Collection Locality	NK No.	Tissue Type	PFOS Concentration (ng/g)
25	American wigeon ( <i>Anas americana</i> ) Wood duck ( <i>Aix sponsa</i> ) Wood duck ( <i>Aix sponsa</i> ) Wood duck ( <i>Aix sponsa</i> ) Cinnamon teal ( <i>Spatula cyanoptera</i> ) Mallard ( <i>Anas platyrhynchos</i> )	Bosque del Apache NWR Albuquerque Corrales Albuquerque 5.7 km SE Ojo Amarillo Red River	276722 276849 276850 276851 278756 283740	Heart, liver, muscle Heart, liver, muscle Heart, liver, muscle Heart, liver, muscle Heart, liver, muscle Heart, liver, muscle	300
26	Canvasback ( <i>Aythya valisineria</i> ) Common merganser ( <i>Mergus merganser</i> ) Common merganser ( <i>Mergus merganser</i> ) Common merganser ( <i>Mergus merganser</i> ) White-winged scoter ( <i>Melanitta deglandi</i> ) Common merganser ( <i>Mergus merganser</i> ) Lesser scaup ( <i>Aythya affinis</i> ) Ruddy duck ( <i>Oxyura jamaicensis</i> )	Kirtland along the San Juan River Chama Chama Chama Santa Fe Chama Carlsbad Albuquerque	278744 282546 282547 282564 282565 282566 282604 282627	Heart, liver, muscle Heart, liver, muscle	380
27	Canada goose ( <i>Branta canadensis</i> ) Canada goose ( <i>Branta canadensis</i> )	Las Vegas Albuquerque	276660 282010	Heart, liver, muscle Heart, liver, muscle	720
28	Blue-winged teal ( <i>Spatula discors</i> ) Wood duck ( <i>Aix sponsa</i> ) Wood duck ( <i>Aix sponsa</i> ) Gadwall ( <i>Mareca strepera</i> )	Albuquerque Corrales Corrales Albuquerque	283698 282696 203651 283747	Heart, liver, muscle Heart, liver, muscle Heart, liver, muscle Heart, liver, muscle	350
29	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283601	Liver	15,000
30	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283602	Liver	6,900
31	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283605	Liver	7,400
32	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283606	Liver	10,000

Notes are provided at the end of the table.

**Table 4. PFAS Screening of Composite and Individual Waterfowl Tissue Samples**  
**Page 9 of 9**

Sample No.	Species Name	Collection Locality	NK No.	Tissue Type	PFOS Concentration (ng/g)
33	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283607	Liver	16,000
34	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283608	Liver	13,000
35	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283615	Liver	14,000
36	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283619	Liver	14,000
37	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283621	Liver	3,100
38	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283622	Liver	25,000
39	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283626	Liver	26,000
40	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283627	Liver	23,000
41	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283629	Liver	19,000
42	Redhead ( <i>Aythya americana</i> )	Holloman Lake	283631	Liver	3,700
43	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283633	Liver	21,000
44	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283641	Liver	13,000
45	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283664	Liver	21,000
46	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283669	Liver	19,000
47	Northern shoveler ( <i>Spatula clypeata</i> )	Holloman Lake	283674	Liver	22,000

ng/g = Nanograms per gram

# Appendix A

## Laboratory Reports

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Jean-Luc Cartron  
University of New Mexico  
Museum of Southwestern Biology  
Division of Mammals  
CERIA Bldg 83, Room 204  
Albuquerque, New Mexico 87131

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## JOB DESCRIPTION

Holloman Lake\_Rodent tissue

## JOB NUMBER

320-113143-1

# Eurofins Sacramento

## Job Notes

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## Authorization



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# Definitions/Glossary

Client: University of New Mexico  
Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

## Qualifiers

LCMS	Qualifier	Qualifier Description
*5+		Isotope dilution analyte is outside acceptance limits, high biased.
E		Result exceeded calibration range.
J		Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	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

# Case Narrative

Client: University of New Mexico  
Project: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

**Job ID: 320-113143-1**

**Eurofins Sacramento**

## Job Narrative 320-113143-1

### Receipt

The samples were received on 6/18/2024 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -33.8° C.

### Receipt Exceptions

Samples were not received with a Chain-of-Custody Form, but the lab received a "Specimen Invoice" that does list the sample IDs under the Description section. The collection date and time were not listed. Client provide the collection date as May 16, 2024 in email received on June 18, 2024. The samples were logged in using a default time of 00:00.

### LCMS

Method B/L/T PFAS: The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range. These analytes have been qualified; however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range. NK311130-Dipodomys merriami-muscle (320-113143-1), NK311134-Peromyscus leucopus-muscle (320-113143-2), NK311135-Mus musculus-muscle (320-113143-3), NK311138-Peromyscus maniculatus-muscle (320-113143-4) and NK311139-Peromyscus leucopus-muscle (320-113143-5)

Method B/L/T PFAS: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. NK311130-Dipodomys merriami-muscle (320-113143-1), NK311134-Peromyscus leucopus-muscle (320-113143-2), NK311135-Mus musculus-muscle (320-113143-3), NK311138-Peromyscus maniculatus-muscle (320-113143-4), NK311139-Peromyscus leucopus-muscle (320-113143-5), (MB 320-773440/1-A), (LCS 320-773440/2-A) and (LCSD 320-773440/3-A)

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

### Organic Prep

Method SHAKE: A matrix spike/matrix spike duplicate (MS/MSD) was not performed with preparation batch 320-773440.

Method SHAKE: Elevated reporting limits (RL) are provided for the following samples due to limited mass available for extraction: NK311134-Peromyscus leucopus-muscle (320-113143-2), NK311135-Mus musculus-muscle (320-113143-3), NK311138-Peromyscus maniculatus-muscle (320-113143-4) and NK311139-Peromyscus leucopus-muscle (320-113143-5).

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

# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

## Client Sample ID: NK311130-Dipodomys merriami-muscle

## Lab Sample ID: 320-113143-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	1.5		0.60	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.78		0.60	0.062	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	19		0.60	0.089	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	19		0.60	0.089	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	17		0.60	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	520	E	1.5	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	220	E	1.5	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	730		1.5	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.19	J	0.60	0.060	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK311134-Peromyscus leucopus-muscle

## Lab Sample ID: 320-113143-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	1.4	J	1.6	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	3.7		1.6	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.56	J	1.6	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	4.3		1.6	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	2.8		1.6	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	2.3		1.6	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.91	J	1.6	0.44	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	1.5	J	1.6	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	85		1.6	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	83		1.6	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	3.2		1.6	0.30	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	420	E	4.0	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	110		4.0	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	540		4.0	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.90	J	1.6	0.68	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	2.9		1.6	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.17	J	1.6	0.16	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK311135-Mus musculus-muscle

## Lab Sample ID: 320-113143-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.99	J	2.8	0.66	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	16		2.8	0.56	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	1.1	J	2.8	0.56	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	17		2.8	0.56	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	28		2.8	0.49	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.83	J	2.8	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	4.9		2.8	0.41	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	150		2.8	0.41	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	150		2.8	0.41	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	26		2.8	0.51	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	1700	E	6.9	0.56	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	680	E	6.9	0.56	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	2400		6.9	0.56	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	1.3	J	2.8	1.2	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.28	J	2.8	0.28	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

**Client Sample ID: NK311138-Peromyscus maniculatus-muscle**

**Lab Sample ID: 320-113143-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.0		1.5	0.35	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluoroheptanoic acid (PFHpA)	2.1		1.5	0.17	ug/Kg	1	B/L/T PFAS	Total/NA	
L-Perfluoroctanoic acid	28		1.5	0.30	ug/Kg	1	B/L/T PFAS	Total/NA	
Br-Perfluoroctanoic acid	1.5		1.5	0.30	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFOA	29		1.5	0.30	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluorononanoic acid (PFNA)	17		1.5	0.26	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluorodecanoic acid (PFDA)	4.2		1.5	0.15	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluoroundecanoic acid (PFUnA)	0.41 J		1.5	0.41	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluoropentanesulfonic acid (PFPeS)	0.43 J		1.5	0.27	ug/Kg	1	B/L/T PFAS	Total/NA	
Br-Perfluorohexanesulfonic acid	3.9		1.5	0.22	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFHxS	150		1.5	0.22	ug/Kg	1	B/L/T PFAS	Total/NA	
L-Perfluorohexanesulfonic acid	150 E		1.5	0.22	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluoroheptanesulfonic acid (PFHpS)	16		1.5	0.28	ug/Kg	1	B/L/T PFAS	Total/NA	
L-Perfluoroctanesulfonic acid	1400 E		3.7	0.30	ug/Kg	1	B/L/T PFAS	Total/NA	
Br-Perfluoroctanesulfonic acid	410 E		3.7	0.30	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFOS	1800		3.7	0.30	ug/Kg	1	B/L/T PFAS	Total/NA	
6:2 FTS	5.4		1.5	0.63	ug/Kg	1	B/L/T PFAS	Total/NA	
8:2 FTS	1.4 J		1.5	0.15	ug/Kg	1	B/L/T PFAS	Total/NA	

**Client Sample ID: NK311139-Peromyscus leucopus-muscle**

**Lab Sample ID: 320-113143-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.49 J		1.1	0.19	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluorohexanoic acid (PFHxA)	0.45 J		1.1	0.30	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluoroheptanoic acid (PFHpA)	0.23 J		1.1	0.13	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluorononanoic acid (PFNA)	2.0		1.1	0.19	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluorodecanoic acid (PFDA)	0.34 J		1.1	0.11	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFHxS	4.4		1.1	0.16	ug/Kg	1	B/L/T PFAS	Total/NA	
L-Perfluorohexanesulfonic acid	4.4		1.1	0.16	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluoroheptanesulfonic acid (PFHpS)	1.8		1.1	0.20	ug/Kg	1	B/L/T PFAS	Total/NA	
L-Perfluoroctanesulfonic acid	250 E		2.7	0.22	ug/Kg	1	B/L/T PFAS	Total/NA	
Br-Perfluoroctanesulfonic acid	42		2.7	0.22	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFOS	290		2.7	0.22	ug/Kg	1	B/L/T PFAS	Total/NA	
6:2 FTS	0.77 J		1.1	0.47	ug/Kg	1	B/L/T PFAS	Total/NA	
8:2 FTS	2.0		1.1	0.11	ug/Kg	1	B/L/T PFAS	Total/NA	
10:2 FTS	0.15 J		1.1	0.11	ug/Kg	1	B/L/T PFAS	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

**Client Sample ID: NK311130-Dipodomys merriami-muscle**

**Lab Sample ID: 320-113143-1**

**Matrix: Tissue**

Date Collected: 05/16/24 00:00

Date Received: 06/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.60	0.14	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
Perfluoropentanoic acid (PFPeA)	ND		0.60	0.11	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
Perfluorohexanoic acid (PFHxA)	ND		0.60	0.16	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
Perfluoroheptanoic acid (PFHpA)	ND		0.60	0.070	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
L-Perfluoroctanoic acid	ND		0.60	0.12	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
Br-Perfluoroctanoic acid	ND		0.60	0.12	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
Total PFOA	ND		0.60	0.12	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>1.5</b>		0.60	0.11	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.78</b>		0.60	0.062	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
Perfluoroundecanoic acid (PFUnA)	ND		0.60	0.16	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.60	0.10	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.60	0.11	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
Br-Perfluorohexanesulfonic acid	ND		0.60	0.089	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
<b>Total PFHxS</b>	<b>19</b>		0.60	0.089	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>19</b>		0.60	0.089	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>17</b>		0.60	0.11	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>520 E</b>		1.5	0.12	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>220 E</b>		1.5	0.12	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
<b>Total PFOS</b>	<b>730</b>		1.5	0.12	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
4:2 FTS	ND		0.60	0.16	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
6:2 FTS	ND		0.60	0.26	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
<b>8:2 FTS</b>	<b>0.19 J</b>		0.60	0.060	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
10:2 FTS	ND		0.60	0.061	ug/Kg	06/20/24 10:53	06/24/24 18:42		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	102		25 - 150			06/20/24 10:53	06/24/24 18:42		1
13C5 PFPeA	113		25 - 150			06/20/24 10:53	06/24/24 18:42		1
13C2 PFHxA	115		25 - 150			06/20/24 10:53	06/24/24 18:42		1
13C4 PFHpA	104		25 - 150			06/20/24 10:53	06/24/24 18:42		1
13C4 PFOA	92		25 - 150			06/20/24 10:53	06/24/24 18:42		1
13C5 PFNA	93		25 - 150			06/20/24 10:53	06/24/24 18:42		1
13C2 PFDA	108		25 - 150			06/20/24 10:53	06/24/24 18:42		1
13C2 PFUnA	116		25 - 150			06/20/24 10:53	06/24/24 18:42		1
13C3 PFBS	117		25 - 150			06/20/24 10:53	06/24/24 18:42		1
18O2 PFHxS	101		25 - 150			06/20/24 10:53	06/24/24 18:42		1
13C4 PFOS	96		25 - 150			06/20/24 10:53	06/24/24 18:42		1
M2-4:2 FTS	134		25 - 150			06/20/24 10:53	06/24/24 18:42		1
M2-6:2 FTS	112		25 - 150			06/20/24 10:53	06/24/24 18:42		1
M2-8:2 FTS	104		25 - 150			06/20/24 10:53	06/24/24 18:42		1
13C2 10:2 FTS	212 *5+		25 - 150			06/20/24 10:53	06/24/24 18:42		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

**Client Sample ID: NK311134-Peromyscus leucopus-muscle**

**Lab Sample ID: 320-113143-2**

**Matrix: Tissue**

Date Collected: 05/16/24 00:00

Date Received: 06/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.6	0.38	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.28	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.44	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>1.4 J</b>		1.6	0.19	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>L-Perfluorooctanoic acid</b>	<b>3.7</b>		1.6	0.33	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>Br-Perfluorooctanoic acid</b>	<b>0.56 J</b>		1.6	0.33	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>Total PFOA</b>	<b>4.3</b>		1.6	0.33	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>2.8</b>		1.6	0.28	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>2.3</b>		1.6	0.17	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.91 J</b>		1.6	0.44	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.27	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.29	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>1.5 J</b>		1.6	0.24	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>Total PFHxS</b>	<b>85</b>		1.6	0.24	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>83</b>		1.6	0.24	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>3.2</b>		1.6	0.30	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>L-Perfluorooctanesulfonic acid</b>	<b>420 E</b>		4.0	0.33	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>Br-Perfluorooctanesulfonic acid</b>	<b>110</b>		4.0	0.33	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>Total PFOS</b>	<b>540</b>		4.0	0.33	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
4:2 FTS	ND		1.6	0.43	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>6:2 FTS</b>	<b>0.90 J</b>		1.6	0.68	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>8:2 FTS</b>	<b>2.9</b>		1.6	0.16	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>10:2 FTS</b>	<b>0.17 J</b>		1.6	0.16	ug/Kg	06/20/24 10:53	06/24/24 19:01		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	116		25 - 150			06/20/24 10:53	06/24/24 19:01		1
13C5 PFPeA	114		25 - 150			06/20/24 10:53	06/24/24 19:01		1
13C2 PFHxA	121		25 - 150			06/20/24 10:53	06/24/24 19:01		1
13C4 PFHpA	107		25 - 150			06/20/24 10:53	06/24/24 19:01		1
13C4 PFOA	96		25 - 150			06/20/24 10:53	06/24/24 19:01		1
13C5 PFNA	100		25 - 150			06/20/24 10:53	06/24/24 19:01		1
13C2 PFDA	111		25 - 150			06/20/24 10:53	06/24/24 19:01		1
13C2 PFUnA	126		25 - 150			06/20/24 10:53	06/24/24 19:01		1
13C3 PFBS	127		25 - 150			06/20/24 10:53	06/24/24 19:01		1
18O2 PFHxS	106		25 - 150			06/20/24 10:53	06/24/24 19:01		1
13C4 PFOS	99		25 - 150			06/20/24 10:53	06/24/24 19:01		1
M2-4:2 FTS	124		25 - 150			06/20/24 10:53	06/24/24 19:01		1
M2-6:2 FTS	122		25 - 150			06/20/24 10:53	06/24/24 19:01		1
M2-8:2 FTS	111		25 - 150			06/20/24 10:53	06/24/24 19:01		1
13C2 10:2 FTS	251 *5+		25 - 150			06/20/24 10:53	06/24/24 19:01		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

**Client Sample ID: NK311135-Mus musculus-muscle**

**Lab Sample ID: 320-113143-3**

**Matrix: Tissue**

Date Collected: 05/16/24 00:00

Date Received: 06/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.99	J	2.8	0.66	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Perfluoropentanoic acid (PFPeA)	ND		2.8	0.49	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Perfluorohexanoic acid (PFHxA)	ND		2.8	0.76	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Perfluoroheptanoic acid (PFHpA)	ND		2.8	0.32	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
L-Perfluorooctanoic acid	16		2.8	0.56	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Br-Perfluorooctanoic acid	1.1	J	2.8	0.56	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Total PFOA	17		2.8	0.56	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Perfluorononanoic acid (PFNA)	28		2.8	0.49	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Perfluorodecanoic acid (PFDA)	0.83	J	2.8	0.29	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Perfluoroundecanoic acid (PFUnA)	ND		2.8	0.76	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Perfluorobutanesulfonic acid (PFBS)	ND		2.8	0.47	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.8	0.50	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Br-Perfluorohexanesulfonic acid	4.9		2.8	0.41	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Total PFHxS	150		2.8	0.41	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
L-Perfluorohexanesulfonic acid	150		2.8	0.41	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Perfluoroheptanesulfonic acid (PFHpS)	26		2.8	0.51	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
L-Perfluoroctanesulfonic acid	1700	E	6.9	0.56	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Br-Perfluoroctanesulfonic acid	680	E	6.9	0.56	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
Total PFOS	2400		6.9	0.56	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
4:2 FTS	ND		2.8	0.74	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
6:2 FTS	1.3	J	2.8	1.2	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
8:2 FTS	ND		2.8	0.28	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
10:2 FTS	0.28	J	2.8	0.28	ug/Kg	06/20/24 10:53	06/24/24 19:20		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	120		25 - 150			06/20/24 10:53	06/24/24 19:20		1
13C5 PFPeA	128		25 - 150			06/20/24 10:53	06/24/24 19:20		1
13C2 PFHxA	131		25 - 150			06/20/24 10:53	06/24/24 19:20		1
13C4 PFHpA	115		25 - 150			06/20/24 10:53	06/24/24 19:20		1
13C4 PFOA	98		25 - 150			06/20/24 10:53	06/24/24 19:20		1
13C5 PFNA	106		25 - 150			06/20/24 10:53	06/24/24 19:20		1
13C2 PFDA	115		25 - 150			06/20/24 10:53	06/24/24 19:20		1
13C2 PFUnA	124		25 - 150			06/20/24 10:53	06/24/24 19:20		1
13C3 PFBS	140		25 - 150			06/20/24 10:53	06/24/24 19:20		1
18O2 PFHxS	115		25 - 150			06/20/24 10:53	06/24/24 19:20		1
13C4 PFOS	109		25 - 150			06/20/24 10:53	06/24/24 19:20		1
M2-4:2 FTS	149		25 - 150			06/20/24 10:53	06/24/24 19:20		1
M2-6:2 FTS	186	*5+	25 - 150			06/20/24 10:53	06/24/24 19:20		1
M2-8:2 FTS	116		25 - 150			06/20/24 10:53	06/24/24 19:20		1
13C2 10:2 FTS	184	*5+	25 - 150			06/20/24 10:53	06/24/24 19:20		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

**Client Sample ID: NK311138-Peromyscus maniculatus-muscle**

**Lab Sample ID: 320-113143-4**

**Matrix: Tissue**

Date Collected: 05/16/24 00:00

Date Received: 06/18/24 09:20

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.0		1.5	0.35	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Perfluoropentanoic acid (PFPeA)	ND		1.5	0.26	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.41	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Perfluoroheptanoic acid (PFHpA)	2.1		1.5	0.17	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
L-Perfluorooctanoic acid	28		1.5	0.30	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Br-Perfluorooctanoic acid	1.5		1.5	0.30	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Total PFOA	29		1.5	0.30	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Perfluorononanoic acid (PFNA)	17		1.5	0.26	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Perfluorodecanoic acid (PFDA)	4.2		1.5	0.15	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Perfluoroundecanoic acid (PFUnA)	0.41 J		1.5	0.41	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.25	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Perfluoropentanesulfonic acid (PFPeS)	0.43 J		1.5	0.27	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Br-Perfluorohexanesulfonic acid	3.9		1.5	0.22	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Total PFHxS	150		1.5	0.22	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
L-Perfluorohexanesulfonic acid	150 E		1.5	0.22	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Perfluoroheptanesulfonic acid (PFHpS)	16		1.5	0.28	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
L-Perfluoroctanesulfonic acid	1400 E		3.7	0.30	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Br-Perfluoroctanesulfonic acid	410 E		3.7	0.30	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
<b>Total PFOS</b>	<b>1800</b>		3.7	0.30	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
4:2 FTS	ND		1.5	0.40	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
<b>6:2 FTS</b>	<b>5.4</b>		1.5	0.63	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
<b>8:2 FTS</b>	<b>1.4 J</b>		1.5	0.15	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
10:2 FTS	ND		1.5	0.15	ug/Kg	06/20/24 10:53	06/24/24 19:40		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	108		25 - 150				06/20/24 10:53	06/24/24 19:40	1
13C5 PFPeA	118		25 - 150				06/20/24 10:53	06/24/24 19:40	1
13C2 PFHxA	113		25 - 150				06/20/24 10:53	06/24/24 19:40	1
13C4 PFHpA	108		25 - 150				06/20/24 10:53	06/24/24 19:40	1
13C4 PFOA	97		25 - 150				06/20/24 10:53	06/24/24 19:40	1
13C5 PFNA	103		25 - 150				06/20/24 10:53	06/24/24 19:40	1
13C2 PFDA	112		25 - 150				06/20/24 10:53	06/24/24 19:40	1
13C2 PFUnA	127		25 - 150				06/20/24 10:53	06/24/24 19:40	1
13C3 PFBS	129		25 - 150				06/20/24 10:53	06/24/24 19:40	1
18O2 PFHxS	110		25 - 150				06/20/24 10:53	06/24/24 19:40	1
13C4 PFOS	103		25 - 150				06/20/24 10:53	06/24/24 19:40	1
M2-4:2 FTS	137		25 - 150				06/20/24 10:53	06/24/24 19:40	1
M2-6:2 FTS	174 *5+		25 - 150				06/20/24 10:53	06/24/24 19:40	1
M2-8:2 FTS	111		25 - 150				06/20/24 10:53	06/24/24 19:40	1
13C2 10:2 FTS	270 *5+		25 - 150				06/20/24 10:53	06/24/24 19:40	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

**Client Sample ID: NK311139-Peromyscus leucopus-muscle**

**Lab Sample ID: 320-113143-5**

**Matrix: Tissue**

Date Collected: 05/16/24 00:00

Date Received: 06/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.1	0.26	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.49 J</b>		1.1	0.19	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.45 J</b>		1.1	0.30	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.23 J</b>		1.1	0.13	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
L-Perfluoroctanoic acid	ND		1.1	0.22	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
Br-Perfluoroctanoic acid	ND		1.1	0.22	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
Total PFOA	ND		1.1	0.22	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>2.0</b>		1.1	0.19	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.34 J</b>		1.1	0.11	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
Perfluoroundecanoic acid (PFUnA)	ND		1.1	0.30	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.1	0.19	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.1	0.20	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
Br-Perfluorohexanesulfonic acid	ND		1.1	0.16	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>Total PFHxS</b>	<b>4.4</b>		1.1	0.16	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>4.4</b>		1.1	0.16	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>1.8</b>		1.1	0.20	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
L-Perfluoroctanesulfonic acid	250 E		2.7	0.22	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
Br-Perfluoroctanesulfonic acid	42		2.7	0.22	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>Total PFOS</b>	<b>290</b>		2.7	0.22	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
4:2 FTS	ND		1.1	0.29	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>6:2 FTS</b>	<b>0.77 J</b>		1.1	0.47	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>8:2 FTS</b>	<b>2.0</b>		1.1	0.11	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>10:2 FTS</b>	<b>0.15 J</b>		1.1	0.11	ug/Kg	06/20/24 10:53	06/24/24 19:59		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	104		25 - 150			06/20/24 10:53	06/24/24 19:59		1
13C5 PFPeA	104		25 - 150			06/20/24 10:53	06/24/24 19:59		1
13C2 PFHxA	116		25 - 150			06/20/24 10:53	06/24/24 19:59		1
13C4 PFHpA	110		25 - 150			06/20/24 10:53	06/24/24 19:59		1
13C4 PFOA	91		25 - 150			06/20/24 10:53	06/24/24 19:59		1
13C5 PFNA	101		25 - 150			06/20/24 10:53	06/24/24 19:59		1
13C2 PFDA	108		25 - 150			06/20/24 10:53	06/24/24 19:59		1
13C2 PFUnA	116		25 - 150			06/20/24 10:53	06/24/24 19:59		1
13C3 PFBS	120		25 - 150			06/20/24 10:53	06/24/24 19:59		1
18O2 PFHxS	105		25 - 150			06/20/24 10:53	06/24/24 19:59		1
13C4 PFOS	98		25 - 150			06/20/24 10:53	06/24/24 19:59		1
M2-4:2 FTS	133		25 - 150			06/20/24 10:53	06/24/24 19:59		1
M2-6:2 FTS	119		25 - 150			06/20/24 10:53	06/24/24 19:59		1
M2-8:2 FTS	112		25 - 150			06/20/24 10:53	06/24/24 19:59		1
13C2 10:2 FTS	261 *5+		25 - 150			06/20/24 10:53	06/24/24 19:59		1

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# Isotope Dilution Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PPPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-113143-1	NK311130-Dipodomys merriami	102	113	115	104	92	93	108	116
320-113143-2	NK311134-Peromyscus leucopus-muscle	116	114	121	107	96	100	111	126
320-113143-3	NK311135-Mus musculus-muscle	120	128	131	115	98	106	115	124
320-113143-4	NK311138-Peromyscus maniculatus-muscle	108	118	113	108	97	103	112	127
320-113143-5	NK311139-Peromyscus leucopus-muscle	104	104	116	110	91	101	108	116
LCS 320-773440/2-A	Lab Control Sample	115	125	132	119	99	109	112	119
LCSD 320-773440/3-A	Lab Control Sample Dup	110	111	122	115	98	105	114	118
MB 320-773440/1-A	Method Blank	109	114	117	107	97	106	110	115

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)						
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)
320-113143-1	NK311130-Dipodomys merriami	117	101	96	134	112	104	212 *5+
320-113143-2	NK311134-Peromyscus leucopus-muscle	127	106	99	124	122	111	251 *5+
320-113143-3	NK311135-Mus musculus-muscle	140	115	109	149	186 *5+	116	184 *5+
320-113143-4	NK311138-Peromyscus maniculatus-muscle	129	110	103	137	174 *5+	111	270 *5+
320-113143-5	NK311139-Peromyscus leucopus-muscle	120	105	98	133	119	112	261 *5+
LCS 320-773440/2-A	Lab Control Sample	131	108	103	128	122	124	357 *5+
LCSD 320-773440/3-A	Lab Control Sample Dup	129	106	100	134	132	117	347 *5+
MB 320-773440/1-A	Method Blank	120	106	101	128	120	113	324 *5+

### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHxA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 M102FTS = 13C2 10:2 FTS

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

**Lab Sample ID: MB 320-773440/1-A**

**Matrix: Tissue**

**Analysis Batch: 774184**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 773440**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Total PFOA	ND		1.0	0.20	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.10	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.27	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Total PFHxS	ND		1.0	0.15	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
L-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Br-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
Total PFOS	ND		2.5	0.20	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
4:2 FTS	ND		1.0	0.27	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
6:2 FTS	ND		1.0	0.42	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
8:2 FTS	ND		1.0	0.10	ug/Kg	06/20/24 10:53	06/24/24 17:43		1
10:2 FTS	ND		1.0	0.10	ug/Kg	06/20/24 10:53	06/24/24 17:43		1

Isotope Dilution	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	109		25 - 150	06/20/24 10:53	06/24/24 17:43	1
13C5 PFPeA	114		25 - 150	06/20/24 10:53	06/24/24 17:43	1
13C2 PFHxA	117		25 - 150	06/20/24 10:53	06/24/24 17:43	1
13C4 PFHpA	107		25 - 150	06/20/24 10:53	06/24/24 17:43	1
13C4 PFOA	97		25 - 150	06/20/24 10:53	06/24/24 17:43	1
13C5 PFNA	106		25 - 150	06/20/24 10:53	06/24/24 17:43	1
13C2 PFDA	110		25 - 150	06/20/24 10:53	06/24/24 17:43	1
13C2 PFUnA	115		25 - 150	06/20/24 10:53	06/24/24 17:43	1
13C3 PFBS	120		25 - 150	06/20/24 10:53	06/24/24 17:43	1
18O2 PFHxS	106		25 - 150	06/20/24 10:53	06/24/24 17:43	1
13C4 PFOS	101		25 - 150	06/20/24 10:53	06/24/24 17:43	1
M2-4:2 FTS	128		25 - 150	06/20/24 10:53	06/24/24 17:43	1
M2-6:2 FTS	120		25 - 150	06/20/24 10:53	06/24/24 17:43	1
M2-8:2 FTS	113		25 - 150	06/20/24 10:53	06/24/24 17:43	1
13C2 10:2 FTS	324 *5+		25 - 150	06/20/24 10:53	06/24/24 17:43	1

**Lab Sample ID: LCS 320-773440/2-A**

**Matrix: Tissue**

**Analysis Batch: 774184**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 773440**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	10.0	10.4		ug/Kg	104	76 - 136	

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-773440/2-A**

**Matrix: Tissue**

**Analysis Batch: 774184**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 773440**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoropentanoic acid (PFPeA)	10.0	10.6		ug/Kg		106	69 - 129
Perfluorohexanoic acid (PFHxA)	10.0	11.4		ug/Kg		114	71 - 131
Perfluoroheptanoic acid (PFHpA)	10.0	10.4		ug/Kg		104	71 - 131
L-Perfluoroctanoic acid	10.0	10.4		ug/Kg		104	72 - 132
Total PFOA	10.0	10.4		ug/Kg		104	
Perfluorononanoic acid (PFNA)	10.0	9.53		ug/Kg		95	73 - 133
Perfluorodecanoic acid (PFDA)	10.0	11.2		ug/Kg		112	72 - 132
Perfluoroundecanoic acid (PFUnA)	10.0	11.5		ug/Kg		115	66 - 126
Perfluorobutanesulfonic acid (PFBS)	8.88	10.1		ug/Kg		113	69 - 129
Perfluoropentanesulfonic acid (PFPeS)	9.40	9.09		ug/Kg		97	66 - 126
Total PFHxS	9.12	9.16		ug/Kg		100	
L-Perfluorohexanesulfonic acid	9.12	9.16		ug/Kg		100	62 - 122
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.7		ug/Kg		112	76 - 136
L-Perfluoroctanesulfonic acid	9.30	10.6		ug/Kg		114	68 - 141
Total PFOS	9.30	10.6		ug/Kg		114	
4:2 FTS	9.38	11.5		ug/Kg		122	68 - 143
6:2 FTS	9.52	9.69		ug/Kg		102	73 - 139
8:2 FTS	9.60	10.6		ug/Kg		110	75 - 135
10:2 FTS	9.66	9.78		ug/Kg		101	69 - 145

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	115		25 - 150
13C5 PFPeA	125		25 - 150
13C2 PFHxA	132		25 - 150
13C4 PFHpA	119		25 - 150
13C4 PFOA	99		25 - 150
13C5 PFNA	109		25 - 150
13C2 PFDA	112		25 - 150
13C2 PFUnA	119		25 - 150
13C3 PFBS	131		25 - 150
18O2 PFHxS	108		25 - 150
13C4 PFOS	103		25 - 150
M2-4:2 FTS	128		25 - 150
M2-6:2 FTS	122		25 - 150
M2-8:2 FTS	124		25 - 150
13C2 10:2 FTS	357 *5+		25 - 150

**Lab Sample ID: LCSD 320-773440/3-A**

**Matrix: Tissue**

**Analysis Batch: 774184**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 773440**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	10.0	10.9		ug/Kg		109	76 - 136	5	30
Perfluoropentanoic acid (PFPeA)	10.0	10.6		ug/Kg		106	69 - 129	0	30
Perfluorohexanoic acid (PFHxA)	10.0	11.4		ug/Kg		114	71 - 131	1	30
Perfluoroheptanoic acid (PFHpA)	10.0	10.2		ug/Kg		102	71 - 131	2	30

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-773440/3-A**

**Matrix: Tissue**

**Analysis Batch: 774184**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 773440**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
L-Perfluoroctanoic acid	10.0	10.4		ug/Kg		104	72 - 132	0	30
Total PFOA	10.0	10.4		ug/Kg		104		0	
Perfluorononanoic acid (PFNA)	10.0	9.49		ug/Kg		95	73 - 133	0	30
Perfluorodecanoic acid (PFDA)	10.0	10.7		ug/Kg		107	72 - 132	5	30
Perfluoroundecanoic acid (PFUnA)	10.0	10.8		ug/Kg		108	66 - 126	7	30
Perfluorobutanesulfonic acid (PFBS)	8.88	9.74		ug/Kg		110	69 - 129	3	30
Perfluoropentanesulfonic acid (PFPeS)	9.40	8.80		ug/Kg		94	66 - 126	3	30
Total PFHxS	9.12	9.01		ug/Kg		99		2	
L-Perfluorohexanesulfonic acid	9.12	9.01		ug/Kg		99	62 - 122	2	30
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.2		ug/Kg		107	76 - 136	5	30
L-Perfluoroctanesulfonic acid	9.30	9.84		ug/Kg		106	68 - 141	7	30
Total PFOS	9.30	9.84		ug/Kg		106		7	
4:2 FTS	9.38	10.1		ug/Kg		108	68 - 143	12	30
6:2 FTS	9.52	9.34		ug/Kg		98	73 - 139	4	30
8:2 FTS	9.60	10.4		ug/Kg		108	75 - 135	2	30
10:2 FTS	9.66	9.27		ug/Kg		96	69 - 145	5	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	110		25 - 150
13C5 PFPeA	111		25 - 150
13C2 PFHxA	122		25 - 150
13C4 PFHpA	115		25 - 150
13C4 PFOA	98		25 - 150
13C5 PFNA	105		25 - 150
13C2 PFDA	114		25 - 150
13C2 PFUnA	118		25 - 150
13C3 PFBS	129		25 - 150
18O2 PFHxS	106		25 - 150
13C4 PFOS	100		25 - 150
M2-4:2 FTS	134		25 - 150
M2-6:2 FTS	132		25 - 150
M2-8:2 FTS	117		25 - 150
13C2 10:2 FTS	347 *5+		25 - 150

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# QC Association Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

## LCMS

### Pre Prep Batch: 772949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113143-1	NK311130-Dipodomys merriami-muscle	Total/NA	Tissue	In-House	
320-113143-2	NK311134-Peromyscus leucopus-muscle	Total/NA	Tissue	In-House	
320-113143-3	NK311135-Mus musculus-muscle	Total/NA	Tissue	In-House	
320-113143-4	NK311138-Peromyscus maniculatus-muscle	Total/NA	Tissue	In-House	
320-113143-5	NK311139-Peromyscus leucopus-muscle	Total/NA	Tissue	In-House	

### Prep Batch: 773440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113143-1	NK311130-Dipodomys merriami-muscle	Total/NA	Tissue	SHAKE	772949
320-113143-2	NK311134-Peromyscus leucopus-muscle	Total/NA	Tissue	SHAKE	772949
320-113143-3	NK311135-Mus musculus-muscle	Total/NA	Tissue	SHAKE	772949
320-113143-4	NK311138-Peromyscus maniculatus-muscle	Total/NA	Tissue	SHAKE	772949
320-113143-5	NK311139-Peromyscus leucopus-muscle	Total/NA	Tissue	SHAKE	772949
MB 320-773440/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-773440/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-773440/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

### Analysis Batch: 774184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113143-1	NK311130-Dipodomys merriami-muscle	Total/NA	Tissue	B/L/T PFAS	773440
320-113143-2	NK311134-Peromyscus leucopus-muscle	Total/NA	Tissue	B/L/T PFAS	773440
320-113143-3	NK311135-Mus musculus-muscle	Total/NA	Tissue	B/L/T PFAS	773440
320-113143-4	NK311138-Peromyscus maniculatus-muscle	Total/NA	Tissue	B/L/T PFAS	773440
320-113143-5	NK311139-Peromyscus leucopus-muscle	Total/NA	Tissue	B/L/T PFAS	773440
MB 320-773440/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	773440
LCS 320-773440/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	773440
LCSD 320-773440/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	773440

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

**Client Sample ID: NK311130-Dipodomys merriami-muscle**

**Lab Sample ID: 320-113143-1**

Matrix: Tissue

Date Collected: 05/16/24 00:00

Date Received: 06/18/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	772949	06/18/24 12:51	RAC	EET SAC
Total/NA	Prep	SHAKE			1.66 g	10.0 mL	773440	06/20/24 10:53	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	774184	06/24/24 18:42	S1C	EET SAC

**Client Sample ID: NK311134-Peromyscus leucopus-muscle**

**Lab Sample ID: 320-113143-2**

Matrix: Tissue

Date Collected: 05/16/24 00:00

Date Received: 06/18/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	772949	06/18/24 12:51	RAC	EET SAC
Total/NA	Prep	SHAKE			0.62 g	10.0 mL	773440	06/20/24 10:53	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	774184	06/24/24 19:01	S1C	EET SAC

**Client Sample ID: NK311135-Mus musculus-muscle**

**Lab Sample ID: 320-113143-3**

Matrix: Tissue

Date Collected: 05/16/24 00:00

Date Received: 06/18/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	772949	06/18/24 12:51	RAC	EET SAC
Total/NA	Prep	SHAKE			0.36 g	10.0 mL	773440	06/20/24 10:53	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	774184	06/24/24 19:20	S1C	EET SAC

**Client Sample ID: NK311138-Peromyscus maniculatus-muscle**

**Lab Sample ID: 320-113143-4**

Matrix: Tissue

Date Collected: 05/16/24 00:00

Date Received: 06/18/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	772949	06/18/24 12:51	RAC	EET SAC
Total/NA	Prep	SHAKE			0.67 g	10.0 mL	773440	06/20/24 10:53	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	774184	06/24/24 19:40	S1C	EET SAC

**Client Sample ID: NK311139-Peromyscus leucopus-muscle**

**Lab Sample ID: 320-113143-5**

Matrix: Tissue

Date Collected: 05/16/24 00:00

Date Received: 06/18/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	772949	06/18/24 12:51	RAC	EET SAC
Total/NA	Prep	SHAKE			0.91 g	10.0 mL	773440	06/20/24 10:53	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	774184	06/24/24 19:59	S1C	EET SAC

## Laboratory References:

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

Eurofins Sacramento

# Accreditation/Certification Summary

Client: University of New Mexico

Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

## Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468	01-20-27
Arizona	State	AZ0708	08-11-24
Arkansas DEQ	State	88-0691	05-18-25
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-24
Florida	NELAP	E87570	06-30-24
Georgia	State	4040	01-29-25
Hawaii	State	Eurofins Sacramento	01-29-25
Illinois	NELAP	200060	03-31-25
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-24
Louisiana (All)	NELAP	01944	06-30-24
Maine	State	CA00004	04-14-26
Michigan	State	9947	01-29-25
Nevada	State	CA00044	07-31-25
New Hampshire	NELAP	2997	04-19-25
New Jersey	NELAP	CA005	07-02-24
New York	NELAP	11666	04-01-25
Ohio	State	41252	01-29-25
Oregon	NELAP	4040	01-29-25
Texas	NELAP	T104704399-23-17	05-31-25
US Fish & Wildlife	US Federal Programs	A22139	04-30-25
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-25
Virginia	NELAP	460278	03-14-25
Washington	State	C581	05-05-25
West Virginia (DW)	State	9930C	01-31-25
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Sacramento

## Method Summary

Client: University of New Mexico  
Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

Method	Method Description	Protocol	Laboratory
B/L/T PFAS	Branched, Linear and Total PFAS	EPA	EET SAC
In-House	Tissue Preparation/Homogenization	NOAA	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

### Protocol References:

EPA = US Environmental Protection Agency

NOAA = National Marine Fisheries Service, National Oceanic And Atmospheric Administration, Seattle, WA, November 1988

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

### Laboratory References:

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

## Sample Summary

Client: University of New Mexico  
Project/Site: Holloman Lake\_Rodent tissue

Job ID: 320-113143-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-113143-1	NK311130-Dipodomys merriami-muscle	Tissue	05/16/24 00:00	06/18/24 09:20
320-113143-2	NK311134-Peromyscus leucopus-muscle	Tissue	05/16/24 00:00	06/18/24 09:20
320-113143-3	NK311135-Mus musculus-muscle	Tissue	05/16/24 00:00	06/18/24 09:20
320-113143-4	NK311138-Peromyscus maniculatus-muscle	Tissue	05/16/24 00:00	06/18/24 09:20
320-113143-5	NK311139-Peromyscus leucopus-muscle	Tissue	05/16/24 00:00	06/18/24 09:20

**SPECIMEN INVOICE**  
**Museum of Southwestern Biology**  
**Division of Mammals**  
**University of New Mexico**  
**17 Jun 2024**



320 113143 Chain of Custody

This loan document acknowledges the loan of specimens to:

Attn: Linda C. Laver  
Eurofins Environment Testing Northern  
California  
880 Riverside Parkway  
West Sacramento, CA 95605

Approved by:

Joseph A. Cook

**Loan Type:** consumable

**Nature of Material:** Five muscle samples from Holloman air force base rodents for PFAS analysis.

**Remarks:**

**Description:** NK311130 - Dipodomys merriami-muscle; NK311134 - Peromyscus leucopus-muscle;  
NK311135 - Mus musculus-muscle; NK311138-Peromyscus maniculatus-muscle; NK311139-Peromyscus  
leucopus-muscle.

**Instructions:**

**Upon receipt, sign and return one copy to:**

Jonathan L. Dunnum, Senior Collection  
Manager  
Division of Mammals  
Museum of Southwestern Biology  
CERIA, Rm #83  
1 University of New Mexico  
Albuquerque, NM 87131  
MSC 03 2020 Email: jldunnum@unm.edu

**Signature of recipient, date:**

 06/18/24  
0920

Received By

-33.8°C

**LOAN REQUIREMENTS: RECIPIENT ACKNOWLEDGES THE FOLLOWING TERMS:**

Material loaned from the MSB should be properly acknowledged by MSB catalog number (MSB:Mamm.XXXX) in subsequent publications, reports, presentations, GenBank, IsoBank, MorphoSource or other data submissions - see Loan Instructions. PDFs of publications should be provided to the MSB. By signing this form, you agree to use these materials only for the study outlined in your original proposal. You must obtain written permission for any use outside of the scope of your original proposal. Transfer of MSB material to a third party is not allowed. Non-consumable specimens on loan should be returned to the MSB within 6 months using the same packing container and materials, shipping method, and insurance value unless other arrangements are made with the MSB Mammal Curator. Thank you for your cooperation.



## Environment Testing

Sacramento Sample  
Receiving Notes (SSRN)Tracking # 7769 0512 8500

Job: \_\_\_\_\_

SO PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
 GSL / OnTrac / Goldstreak / USPS / Other \_\_\_\_\_

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.  
File in the job folder with the COC

<p>Therm. ID <u>L06</u> Corr. Factor (+ / -) <u>NA</u> °C  Ice <input type="checkbox"/> Wet <input type="checkbox"/> Gel <input type="checkbox"/> Other <u>/</u>  Cooler Custody Seal <u>-</u>  Cooler ID: <u>-</u>  Temp Observed. <u>-33.8</u> °C Corrected. <u>-33.8</u> °C  From Temp Blank <input type="checkbox"/> Sample <input checked="" type="checkbox"/></p> <p><b>Opening/Processing The Shipment</b></p> <table> <tr><td>Yes</td><td>No</td><td>NA</td></tr> <tr><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td colspan="3">Cooler compromised/tampered with?</td></tr> <tr><td colspan="3">Cooler Temperature is acceptable?</td></tr> <tr><td colspan="3">Frozen samples show signs of thaw?</td></tr> </table> <p>Initials <u>DM</u> Date <u>06/18/24</u></p> <p><b>Unpacking/Labeling The Samples</b></p> <table> <tr><td>Yes</td><td>No</td><td>NA</td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td colspan="3">Containers are not broken or leaking?</td></tr> <tr><td colspan="3">Samples compromised/tampered with?</td></tr> <tr><td colspan="3">COC is complete w/o discrepancies</td></tr> <tr><td colspan="3">Sample custody seal?</td></tr> <tr><td colspan="3">Sample containers have legible labels?</td></tr> <tr><td colspan="3">Sample date/times are provided?</td></tr> <tr><td colspan="3">Appropriate containers are used?</td></tr> <tr><td colspan="3">Sample bottles are completely filled?</td></tr> <tr><td colspan="3">Sample preservatives verified?</td></tr> <tr><td colspan="3">Is the Field Sampler's name on COC?</td></tr> <tr><td colspan="3">Samples w/o discrepancies?</td></tr> <tr><td colspan="3">Zero headspace?*</td></tr> <tr><td colspan="3">Alkalinity has no headspace?</td></tr> <tr><td colspan="3">Perchlorate has headspace? (Methods 314, 331, 6850)</td></tr> <tr><td colspan="3">Multiphasic samples are not present?</td></tr> </table> <p>*Containers requiring zero headspace have no headspace, or bubble &lt; 6 mm (1/4")</p> <p>Initials <u>SJ</u> Date <u>6/18/24</u></p>	Yes	No	NA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cooler compromised/tampered with?			Cooler Temperature is acceptable?			Frozen samples show signs of thaw?			Yes	No	NA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Containers are not broken or leaking?			Samples compromised/tampered with?			COC is complete w/o discrepancies			Sample custody seal?			Sample containers have legible labels?			Sample date/times are provided?			Appropriate containers are used?			Sample bottles are completely filled?			Sample preservatives verified?			Is the Field Sampler's name on COC?			Samples w/o discrepancies?			Zero headspace?*			Alkalinity has no headspace?			Perchlorate has headspace? (Methods 314, 331, 6850)			Multiphasic samples are not present?			<p>Notes: <u>Dry Ice</u>  <u>I-S 10' NKAHHHHHH</u></p> <p>Trizma Lot #(s) _____  Ammonium _____  Acetate Lot #(s) _____</p> <p><b>Login Completion</b></p> <table> <tr><td>Yes</td><td>No</td><td>NA</td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td colspan="3">Receipt Temperature on COC?</td></tr> <tr><td colspan="3">NCM Filed?</td></tr> <tr><td colspan="3">Samples received within hold time?</td></tr> <tr><td colspan="3">Log Release checked in TALS?</td></tr> </table> <p>Initials <u>SJ</u> Date. <u>6/18/24</u></p>	Yes	No	NA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Receipt Temperature on COC?			NCM Filed?			Samples received within hold time?			Log Release checked in TALS?		
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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Jean-Luc Cartron  
University of New Mexico  
Museum of Southwestern Biology  
Division of Mammals  
CERIA Bldg 83, Room 204  
Albuquerque, New Mexico 87131

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## JOB DESCRIPTION

HollomanLake PFAS Research

## JOB NUMBER

320-113430-1

# Eurofins Sacramento

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northern California, LLC Project Manager.

## Authorization



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Authorized for release by  
Linda C. Laver, Senior Project Manager  
[Linda.Laver@et.eurofinsus.com](mailto:Linda.Laver@et.eurofinsus.com)  
(916)374-4362

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# Definitions/Glossary

Client: University of New Mexico  
Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

## Qualifiers

LCMS	
Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	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

# Case Narrative

Client: University of New Mexico  
Project: HollomanLake PFAS Research

Job ID: 320-113430-1

**Job ID: 320-113430-1**

**Eurofins Sacramento**

## Job Narrative 320-113430-1

### Comments

The following samples were canceled by the client on July 2, 2024 due to insufficient volume submitted for analysis: H2O West (320-113430-17), H2O -So (320-113430-18), H2O North Inlet (320-113430-19) and H2O East Inlet (320-113430-20).

The following samples were canceled by the client on July 10, 2024 due to limited sample mass submitted for analysis: Soil NE2-1 (320-113430-1), Soil NE2-2 (320-113430-2), Soil NE2-3 (320-113430-3), Soil NE2-4 (320-113430-4), Soil4-1 (320-113430-5), Soil4-2 (320-113430-6), Soil4-3 (320-113430-7) and Soil4-4 (320-113430-8).

### Receipt

The samples were received on 6/27/2024 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved. The temperature of the cooler at receipt was 19.8° C.

### Receipt Exceptions

Samples were received at the laboratory outside the required temperature criteria. Client was aware these were shipped without any cooling agent and approved the lab to perform the analyses.

The Chain-of-Custody (COC) was incomplete as received and does not list the requested analyses. Based on communications with the client, the samples were logged in for PFAS (17 Analyte List by 537 Mod).

### LCMS

Method B/L/T PFAS: Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following samples. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. Saltbush 2-1 (320-113430-9), Saltbush 2-2 (320-113430-10), Saltbush 2-3 (320-113430-11), Saltbush 2-4 (320-113430-12), Saltbush 4-1 (320-113430-13), Saltbush 4-2 (320-113430-14), Saltbush 4-3 (320-113430-15), Saltbush 4-4 (320-113430-16), Algae So (320-113430-21), (MB 320-779766/1-A), (LCS 320-779766/2-A), (LCSD 320-779766/3-A)

Method B/L/T PFAS: Some results for the following sample were reported from the analysis of a diluted extract due to matrix interference and high concentration of target analyte(s) in the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits. Saltbush 4-1 (320-113430-13)

Method B/L/T PFAS: Some results for the following sample were reported from the analysis of a diluted extract due to high concentration of target analyte(s) in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were outside acceptance limits. The internal standard is not used to quantitate target analyte concentrations; therefore, the data have been reported. Algae So (320-113430-21)

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

### Organic Prep

Method SHAKE: Insufficient sample was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-779760 and 320-779766.

Method SHAKE: The following samples ranged in color from yellow to green after extraction. Saltbush 2-1 (320-113430-9), Saltbush 2-2 (320-113430-10), Saltbush 2-3 (320-113430-11), Saltbush 2-4 (320-113430-12), Saltbush 4-1 (320-113430-13), Saltbush 4-2 (320-113430-14), Saltbush 4-3 (320-113430-15), Saltbush 4-4 (320-113430-16) and Algae So (320-113430-21)

Method SHAKE: Elevated reporting limits are provided for the following samples due to insufficient sample (< 1 gram) provided for preparation. Saltbush 2-1 (320-113430-9), Saltbush 2-2 (320-113430-10), Saltbush 2-3 (320-113430-11), Saltbush 2-4 (320-113430-12), Saltbush 4-1 (320-113430-13), Saltbush 4-2 (320-113430-14), Saltbush 4-3 (320-113430-15) and Saltbush 4-4 (320-113430-16)

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

# Detection Summary

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

## **Client Sample ID: Saltbush 2-1**

## **Lab Sample ID: 320-113430-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	22		1.7	0.39	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	17		1.7	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	5.2	B	1.7	0.46	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.9		1.7	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	1.7		1.7	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.7		1.7	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.9		1.7	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2.4		1.7	0.30	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	2.3		1.7	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	15		1.7	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	13		1.7	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.31	J	1.7	0.31	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	5.7		4.2	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	4.9		4.2	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	11		4.2	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	9.2		1.7	0.71	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: Saltbush 2-2**

## **Lab Sample ID: 320-113430-10**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.2		1.7	0.39	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.59	J B	1.7	0.46	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.68	J	1.7	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.68	J	1.7	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	0.78	J	4.2	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	0.52	J	4.2	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1.3	J	4.2	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	1.1	J	1.7	0.71	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: Saltbush 2-3**

## **Lab Sample ID: 320-113430-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.4		1.4	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.43	J B	1.4	0.38	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.40	J	1.4	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.40	J	1.4	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	0.48	J	3.5	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	0.31	J	3.5	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	0.79	J	3.5	0.29	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: Saltbush 2-4**

## **Lab Sample ID: 320-113430-12**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	12		1.6	0.39	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	8.0		1.6	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	1.8	B	1.6	0.45	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.46	J	1.6	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	1.1	J	1.6	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	1.1	J	1.6	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	0.41	J	4.1	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	0.41	J	4.1	0.33	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

## Client Sample ID: Saltbush 4-1

## Lab Sample ID: 320-113430-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	50		1.6	0.38	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	70	B	1.6	0.44	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	17		1.6	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	42		1.6	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	4.1		1.6	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	46		1.6	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	32		1.6	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.46	J	1.6	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	5.7		1.6	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPPeS)	27		1.6	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	45		1.6	0.30	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	4.0		1.6	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PPPeA) - DL	140		81	14	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	50	J	81	12	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFHxS - DL	410		81	12	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	360		81	12	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	2100		200	16	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	1600		200	16	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	3600		200	16	ug/Kg	50		B/L/T PFAS	Total/NA
6:2 FTS - DL	190		81	34	ug/Kg	50		B/L/T PFAS	Total/NA

## Client Sample ID: Saltbush 4-2

## Lab Sample ID: 320-113430-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.87	J	1.4	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.44	J B	1.4	0.37	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.93	J	1.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.86	J	1.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	0.76	J	3.4	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	0.54	J	3.4	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1.3	J	3.4	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	1.4		1.4	0.57	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: Saltbush 4-3

## Lab Sample ID: 320-113430-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.38	J	1.1	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.43	J B	1.1	0.31	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.67	J	1.1	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.64	J	1.1	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	0.67	J	2.9	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	0.48	J	2.9	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1.2	J	2.9	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	1.0	J	1.1	0.49	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: Saltbush 4-4

## Lab Sample ID: 320-113430-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.2		2.3	0.54	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.74	J B	2.3	0.62	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

**Client Sample ID: Algae So**

**Lab Sample ID: 320-113430-21**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.6		0.78	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	14		0.78	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	21	B	0.78	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	4.6		0.78	0.091	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	8.8		0.78	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.70	J	0.78	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	9.5		0.78	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	2.5		0.78	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.35	J	0.78	0.080	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.2		0.78	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	8.6		0.78	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	12		0.78	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	71		0.78	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	58		0.78	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	2.2		0.78	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	26		0.78	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.53	J	0.78	0.078	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.092	J	0.78	0.079	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	83		20	1.6	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	37		20	1.6	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	120		20	1.6	ug/Kg	10		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

**Client Sample ID: Saltbush 2-1**

**Lab Sample ID: 320-113430-9**

**Matrix: Tissue**

Date Collected: 06/25/24 08:00

Date Received: 06/27/24 09:30

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	22		1.7	0.39	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
Perfluoropentanoic acid (PFPeA)	17		1.7	0.29	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
Perfluorohexanoic acid (PFHxA)	5.2	B	1.7	0.46	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
Perfluoroheptanoic acid (PFHpA)	1.9		1.7	0.19	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
L-Perfluoroctanoic acid	1.7		1.7	0.34	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
Br-Perfluoroctanoic acid	ND		1.7	0.34	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
<b>Total PFOA</b>	<b>1.7</b>		1.7	0.34	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
Perfluorononanoic acid (PFNA)	ND		1.7	0.29	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.17	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.45	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>2.9</b>		1.7	0.28	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>2.4</b>		1.7	0.30	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
Br-Perfluorohexanesulfonic acid	2.3		1.7	0.25	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
<b>Total PFHxS</b>	<b>15</b>		1.7	0.25	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>13</b>		1.7	0.25	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.31</b>	J	1.7	0.31	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
L-Perfluoroctanesulfonic acid	5.7		4.2	0.34	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
Br-Perfluoroctanesulfonic acid	4.9		4.2	0.34	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
<b>Total PFOS</b>	<b>11</b>		4.2	0.34	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
4:2 FTS	ND		1.7	0.44	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
<b>6:2 FTS</b>	<b>9.2</b>		1.7	0.71	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
8:2 FTS	ND		1.7	0.17	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
10:2 FTS	ND		1.7	0.17	ug/Kg	07/16/24 04:26	07/17/24 19:44		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	45		25 - 150				07/16/24 04:26	07/17/24 19:44	1
13C5 PFPeA	51		25 - 150				07/16/24 04:26	07/17/24 19:44	1
13C2 PFHxA	108		25 - 150				07/16/24 04:26	07/17/24 19:44	1
13C4 PFHpA	97		25 - 150				07/16/24 04:26	07/17/24 19:44	1
13C4 PFOA	91		25 - 150				07/16/24 04:26	07/17/24 19:44	1
13C5 PFNA	101		25 - 150				07/16/24 04:26	07/17/24 19:44	1
13C2 PFDA	124		25 - 150				07/16/24 04:26	07/17/24 19:44	1
13C2 PFUnA	108		25 - 150				07/16/24 04:26	07/17/24 19:44	1
13C3 PFBS	68		25 - 150				07/16/24 04:26	07/17/24 19:44	1
18O2 PFHxS	87		25 - 150				07/16/24 04:26	07/17/24 19:44	1
13C4 PFOS	107		25 - 150				07/16/24 04:26	07/17/24 19:44	1
M2-4:2 FTS	289	*5+	25 - 150				07/16/24 04:26	07/17/24 19:44	1
M2-6:2 FTS	170	*5+	25 - 150				07/16/24 04:26	07/17/24 19:44	1
M2-8:2 FTS	162	*5+	25 - 150				07/16/24 04:26	07/17/24 19:44	1
13C2 10:2 FTS	412	*5+	25 - 150				07/16/24 04:26	07/17/24 19:44	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

**Client Sample ID: Saltbush 2-2**

**Lab Sample ID: 320-113430-10**

**Matrix: Tissue**

Date Collected: 06/25/24 08:30

Date Received: 06/27/24 09:30

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.2		1.7	0.39	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.29	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Perfluorohexanoic acid (PFHxA)	0.59 J B		1.7	0.46	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.19	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
L-Perfluoroctanoic acid	ND		1.7	0.34	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Br-Perfluoroctanoic acid	ND		1.7	0.34	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Total PFOA	ND		1.7	0.34	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Perfluorononanoic acid (PFNA)	ND		1.7	0.29	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.17	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.45	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.28	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.30	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Br-Perfluorohexanesulfonic acid	ND		1.7	0.25	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
<b>Total PFHxS</b>	<b>0.68 J</b>		1.7	0.25	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.68 J</b>		1.7	0.25	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.31	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>0.78 J</b>		4.2	0.34	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.52 J</b>		4.2	0.34	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
<b>Total PFOS</b>	<b>1.3 J</b>		4.2	0.34	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
4:2 FTS	ND		1.7	0.44	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
<b>6:2 FTS</b>	<b>1.1 J</b>		1.7	0.71	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
8:2 FTS	ND		1.7	0.17	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
10:2 FTS	ND		1.7	0.17	ug/Kg	07/16/24 04:26	07/17/24 20:04		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	42		25 - 150			07/16/24 04:26	07/17/24 20:04		1
13C5 PFPeA	53		25 - 150			07/16/24 04:26	07/17/24 20:04		1
13C2 PFHxA	101		25 - 150			07/16/24 04:26	07/17/24 20:04		1
13C4 PFHpA	87		25 - 150			07/16/24 04:26	07/17/24 20:04		1
13C4 PFOA	92		25 - 150			07/16/24 04:26	07/17/24 20:04		1
13C5 PFNA	106		25 - 150			07/16/24 04:26	07/17/24 20:04		1
13C2 PFDA	130		25 - 150			07/16/24 04:26	07/17/24 20:04		1
13C2 PFUnA	101		25 - 150			07/16/24 04:26	07/17/24 20:04		1
13C3 PFBS	65		25 - 150			07/16/24 04:26	07/17/24 20:04		1
18O2 PFHxS	84		25 - 150			07/16/24 04:26	07/17/24 20:04		1
13C4 PFOS	113		25 - 150			07/16/24 04:26	07/17/24 20:04		1
M2-4:2 FTS	242 *5+		25 - 150			07/16/24 04:26	07/17/24 20:04		1
M2-6:2 FTS	176 *5+		25 - 150			07/16/24 04:26	07/17/24 20:04		1
M2-8:2 FTS	162 *5+		25 - 150			07/16/24 04:26	07/17/24 20:04		1
13C2 10:2 FTS	577 *5+		25 - 150			07/16/24 04:26	07/17/24 20:04		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

**Client Sample ID: Saltbush 2-3**  
**Date Collected: 06/25/24 09:00**  
**Date Received: 06/27/24 09:30**

**Lab Sample ID: 320-113430-11**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.4		1.4	0.33	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Perfluoropentanoic acid (PFPeA)	ND		1.4	0.25	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Perfluorohexanoic acid (PFHxA)	0.43	J B	1.4	0.38	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Perfluoroheptanoic acid (PFHpA)	ND		1.4	0.16	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
L-Perfluoroctanoic acid	ND		1.4	0.28	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Br-Perfluoroctanoic acid	ND		1.4	0.28	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Total PFOA	ND		1.4	0.28	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Perfluorononanoic acid (PFNA)	ND		1.4	0.25	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Perfluorodecanoic acid (PFDA)	ND		1.4	0.15	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Perfluoroundecanoic acid (PFUnA)	ND		1.4	0.38	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.4	0.24	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.4	0.25	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Br-Perfluorohexanesulfonic acid	ND		1.4	0.21	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
<b>Total PFHxS</b>	<b>0.40</b>	<b>J</b>	1.4	0.21	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.40</b>	<b>J</b>	1.4	0.21	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.4	0.26	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>0.48</b>	<b>J</b>	3.5	0.29	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.31</b>	<b>J</b>	3.5	0.29	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
<b>Total PFOS</b>	<b>0.79</b>	<b>J</b>	3.5	0.29	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
4:2 FTS	ND		1.4	0.37	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
6:2 FTS	ND		1.4	0.60	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
8:2 FTS	ND		1.4	0.14	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
10:2 FTS	ND		1.4	0.14	ug/Kg	07/16/24 04:26	07/17/24 20:23		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	31		25 - 150			07/16/24 04:26	07/17/24 20:23		1
13C5 PFPeA	50		25 - 150			07/16/24 04:26	07/17/24 20:23		1
13C2 PFHxA	109		25 - 150			07/16/24 04:26	07/17/24 20:23		1
13C4 PFHpA	91		25 - 150			07/16/24 04:26	07/17/24 20:23		1
13C4 PFOA	90		25 - 150			07/16/24 04:26	07/17/24 20:23		1
13C5 PFNA	107		25 - 150			07/16/24 04:26	07/17/24 20:23		1
13C2 PFDA	136		25 - 150			07/16/24 04:26	07/17/24 20:23		1
13C2 PFUnA	106		25 - 150			07/16/24 04:26	07/17/24 20:23		1
13C3 PFBS	69		25 - 150			07/16/24 04:26	07/17/24 20:23		1
18O2 PFHxS	83		25 - 150			07/16/24 04:26	07/17/24 20:23		1
13C4 PFOS	112		25 - 150			07/16/24 04:26	07/17/24 20:23		1
M2-4:2 FTS	215	*5+	25 - 150			07/16/24 04:26	07/17/24 20:23		1
M2-6:2 FTS	167	*5+	25 - 150			07/16/24 04:26	07/17/24 20:23		1
M2-8:2 FTS	196	*5+	25 - 150			07/16/24 04:26	07/17/24 20:23		1
13C2 10:2 FTS	376	*5+	25 - 150			07/16/24 04:26	07/17/24 20:23		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

**Client Sample ID: Saltbush 2-4**

**Lab Sample ID: 320-113430-12**

**Matrix: Tissue**

Date Collected: 06/25/24 10:00

Date Received: 06/27/24 09:30

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	12		1.6	0.39	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Perfluoropentanoic acid (PFPeA)	8.0		1.6	0.29	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Perfluorohexanoic acid (PFHxA)	1.8	B	1.6	0.45	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.19	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
L-Perfluoroctanoic acid	ND		1.6	0.33	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Br-Perfluoroctanoic acid	ND		1.6	0.33	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Total PFOA	ND		1.6	0.33	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Perfluorononanoic acid (PFNA)	ND		1.6	0.29	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.17	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.45	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.46</b>	<b>J</b>	1.6	0.28	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6	0.30	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Br-Perfluorohexanesulfonic acid	ND		1.6	0.24	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
<b>Total PFHxS</b>	<b>1.1</b>	<b>J</b>	1.6	0.24	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>1.1</b>	<b>J</b>	1.6	0.24	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6	0.30	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>0.41</b>	<b>J</b>	4.1	0.33	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Br-Perfluoroctanesulfonic acid	ND		4.1	0.33	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
<b>Total PFOS</b>	<b>0.41</b>	<b>J</b>	4.1	0.33	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
4:2 FTS	ND		1.6	0.44	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
6:2 FTS	ND		1.6	0.70	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
8:2 FTS	ND		1.6	0.16	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
10:2 FTS	ND		1.6	0.17	ug/Kg	07/16/24 04:26	07/17/24 20:42		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	36		25 - 150				07/16/24 04:26	07/17/24 20:42	1
13C5 PFPeA	53		25 - 150				07/16/24 04:26	07/17/24 20:42	1
13C2 PFHxA	105		25 - 150				07/16/24 04:26	07/17/24 20:42	1
13C4 PFHpA	91		25 - 150				07/16/24 04:26	07/17/24 20:42	1
13C4 PFOA	89		25 - 150				07/16/24 04:26	07/17/24 20:42	1
13C5 PFNA	112		25 - 150				07/16/24 04:26	07/17/24 20:42	1
13C2 PFDA	146		25 - 150				07/16/24 04:26	07/17/24 20:42	1
13C2 PFUnA	129		25 - 150				07/16/24 04:26	07/17/24 20:42	1
13C3 PFBS	71		25 - 150				07/16/24 04:26	07/17/24 20:42	1
18O2 PFHxS	83		25 - 150				07/16/24 04:26	07/17/24 20:42	1
13C4 PFOS	114		25 - 150				07/16/24 04:26	07/17/24 20:42	1
M2-4:2 FTS	226	*5+	25 - 150				07/16/24 04:26	07/17/24 20:42	1
M2-6:2 FTS	162	*5+	25 - 150				07/16/24 04:26	07/17/24 20:42	1
M2-8:2 FTS	180	*5+	25 - 150				07/16/24 04:26	07/17/24 20:42	1
13C2 10:2 FTS	621	*5+	25 - 150				07/16/24 04:26	07/17/24 20:42	1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

**Client Sample ID: Saltbush 4-1**  
Date Collected: 06/24/24 15:00  
Date Received: 06/27/24 09:30

**Lab Sample ID: 320-113430-13**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	50		1.6	0.38	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
Perfluorohexanoic acid (PFHxA)	70	B	1.6	0.44	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
Perfluoroheptanoic acid (PFHpA)	17		1.6	0.19	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
L-Perfluorooctanoic acid	42		1.6	0.33	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
Br-Perfluorooctanoic acid	4.1		1.6	0.33	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
Total PFOA	46		1.6	0.33	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
Perfluorononanoic acid (PFNA)	32		1.6	0.28	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
Perfluorodecanoic acid (PFDA)	0.46	J	1.6	0.17	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.44	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
Perfluorobutanesulfonic acid (PFBS)	5.7		1.6	0.27	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
Perfluoropentanesulfonic acid (PFPeS)	27		1.6	0.29	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
Perfluoroheptanesulfonic acid (PFHpS)	45		1.6	0.30	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
4:2 FTS	ND		1.6	0.43	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
<b>8:2 FTS</b>	<b>4.0</b>		1.6	0.16	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
10:2 FTS	ND		1.6	0.16	ug/Kg	07/16/24 04:26	07/17/24 21:02		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	42		25 - 150				07/16/24 04:26	07/17/24 21:02	1
13C2 PFHxA	108		25 - 150				07/16/24 04:26	07/17/24 21:02	1
13C4 PFHpA	92		25 - 150				07/16/24 04:26	07/17/24 21:02	1
13C4 PFOA	88		25 - 150				07/16/24 04:26	07/17/24 21:02	1
13C5 PFNA	100		25 - 150				07/16/24 04:26	07/17/24 21:02	1
13C2 PFDA	135		25 - 150				07/16/24 04:26	07/17/24 21:02	1
13C2 PFUnA	127		25 - 150				07/16/24 04:26	07/17/24 21:02	1
13C3 PFBS	66		25 - 150				07/16/24 04:26	07/17/24 21:02	1
13C4 PFOS	88		25 - 150				07/16/24 04:26	07/17/24 21:02	1
M2-4:2 FTS	209	*5+	25 - 150				07/16/24 04:26	07/17/24 21:02	1
M2-8:2 FTS	168	*5+	25 - 150				07/16/24 04:26	07/17/24 21:02	1
13C2 10:2 FTS	553	*5+	25 - 150				07/16/24 04:26	07/17/24 21:02	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	140		81	14	ug/Kg	07/16/24 04:26	07/19/24 18:00		50
Br-Perfluorohexanesulfonic acid	50	J	81	12	ug/Kg	07/16/24 04:26	07/19/24 18:00		50
Total PFHxS	410		81	12	ug/Kg	07/16/24 04:26	07/19/24 18:00		50
L-Perfluorohexanesulfonic acid	360		81	12	ug/Kg	07/16/24 04:26	07/19/24 18:00		50
L-Perfluorooctanesulfonic acid	2100		200	16	ug/Kg	07/16/24 04:26	07/19/24 18:00		50
Br-Perfluorooctanesulfonic acid	1600		200	16	ug/Kg	07/16/24 04:26	07/19/24 18:00		50
Total PFOS	3600		200	16	ug/Kg	07/16/24 04:26	07/19/24 18:00		50
6:2 FTS	190		81	34	ug/Kg	07/16/24 04:26	07/19/24 18:00		50
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFPeA	78		25 - 150				07/16/24 04:26	07/19/24 18:00	50
18O2 PFHxS	72		25 - 150				07/16/24 04:26	07/19/24 18:00	50
13C4 PFOS	95		25 - 150				07/16/24 04:26	07/19/24 18:00	50
M2-6:2 FTS	94		25 - 150				07/16/24 04:26	07/19/24 18:00	50

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

**Client Sample ID: Saltbush 4-2**

**Lab Sample ID: 320-113430-14**

**Matrix: Tissue**

Date Collected: 06/24/24 14:00

Date Received: 06/27/24 09:30

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.87	J	1.4	0.32	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
Perfluoropentanoic acid (PFPeA)	ND		1.4	0.24	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
Perfluorohexanoic acid (PFHxA)	0.44	J B	1.4	0.37	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
Perfluoroheptanoic acid (PFHpA)	ND		1.4	0.16	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
L-Perfluoroctanoic acid	ND		1.4	0.27	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
Br-Perfluoroctanoic acid	ND		1.4	0.27	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
Total PFOA	ND		1.4	0.27	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
Perfluorononanoic acid (PFNA)	ND		1.4	0.24	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
Perfluorodecanoic acid (PFDA)	ND		1.4	0.14	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
Perfluoroundecanoic acid (PFUnA)	ND		1.4	0.37	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.4	0.23	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.4	0.24	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
Br-Perfluorohexanesulfonic acid	ND		1.4	0.20	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
<b>Total PFHxS</b>	<b>0.93</b>	<b>J</b>	<b>1.4</b>	<b>0.20</b>	<b>ug/Kg</b>	<b>07/16/24 04:26</b>	<b>07/17/24 21:21</b>		<b>1</b>
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.86</b>	<b>J</b>	<b>1.4</b>	<b>0.20</b>	<b>ug/Kg</b>	<b>07/16/24 04:26</b>	<b>07/17/24 21:21</b>		<b>1</b>
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.4	0.25	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>0.76</b>	<b>J</b>	<b>3.4</b>	<b>0.27</b>	<b>ug/Kg</b>	<b>07/16/24 04:26</b>	<b>07/17/24 21:21</b>		<b>1</b>
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.54</b>	<b>J</b>	<b>3.4</b>	<b>0.27</b>	<b>ug/Kg</b>	<b>07/16/24 04:26</b>	<b>07/17/24 21:21</b>		<b>1</b>
<b>Total PFOS</b>	<b>1.3</b>	<b>J</b>	<b>3.4</b>	<b>0.27</b>	<b>ug/Kg</b>	<b>07/16/24 04:26</b>	<b>07/17/24 21:21</b>		<b>1</b>
4:2 FTS	ND		1.4	0.36	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
<b>6:2 FTS</b>	<b>1.4</b>		<b>1.4</b>	<b>0.57</b>	<b>ug/Kg</b>	<b>07/16/24 04:26</b>	<b>07/17/24 21:21</b>		<b>1</b>
8:2 FTS	ND		1.4	0.14	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
10:2 FTS	ND		1.4	0.14	ug/Kg	07/16/24 04:26	07/17/24 21:21		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	39		25 - 150			07/16/24 04:26	07/17/24 21:21		1
13C5 PFPeA	49		25 - 150			07/16/24 04:26	07/17/24 21:21		1
13C2 PFHxA	96		25 - 150			07/16/24 04:26	07/17/24 21:21		1
13C4 PFHpA	92		25 - 150			07/16/24 04:26	07/17/24 21:21		1
13C4 PFOA	92		25 - 150			07/16/24 04:26	07/17/24 21:21		1
13C5 PFNA	111		25 - 150			07/16/24 04:26	07/17/24 21:21		1
13C2 PFDA	153	*5+	25 - 150			07/16/24 04:26	07/17/24 21:21		1
13C2 PFUnA	138		25 - 150			07/16/24 04:26	07/17/24 21:21		1
13C3 PFBS	64		25 - 150			07/16/24 04:26	07/17/24 21:21		1
18O2 PFHxS	85		25 - 150			07/16/24 04:26	07/17/24 21:21		1
13C4 PFOS	110		25 - 150			07/16/24 04:26	07/17/24 21:21		1
M2-4:2 FTS	238	*5+	25 - 150			07/16/24 04:26	07/17/24 21:21		1
M2-6:2 FTS	188	*5+	25 - 150			07/16/24 04:26	07/17/24 21:21		1
M2-8:2 FTS	201	*5+	25 - 150			07/16/24 04:26	07/17/24 21:21		1
13C2 10:2 FTS	576	*5+	25 - 150			07/16/24 04:26	07/17/24 21:21		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

**Client Sample ID: Saltbush 4-3**

**Lab Sample ID: 320-113430-15**

**Matrix: Tissue**

Date Collected: 06/24/24 13:30

Date Received: 06/27/24 09:30

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.38	J	1.1	0.27	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Perfluoropentanoic acid (PFPeA)	ND		1.1	0.20	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Perfluorohexanoic acid (PFHxA)	0.43	J B	1.1	0.31	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Perfluoroheptanoic acid (PFHpA)	ND		1.1	0.13	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
L-Perfluoroctanoic acid	ND		1.1	0.23	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Br-Perfluoroctanoic acid	ND		1.1	0.23	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Total PFOA	ND		1.1	0.23	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Perfluorononanoic acid (PFNA)	ND		1.1	0.20	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Perfluorodecanoic acid (PFDA)	ND		1.1	0.12	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Perfluoroundecanoic acid (PFUnA)	ND		1.1	0.31	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.1	0.20	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.1	0.21	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Br-Perfluorohexanesulfonic acid	ND		1.1	0.17	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
<b>Total PFHxS</b>	<b>0.67</b>	<b>J</b>	1.1	0.17	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.64</b>	<b>J</b>	1.1	0.17	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.1	0.21	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>0.67</b>	<b>J</b>	2.9	0.23	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.48</b>	<b>J</b>	2.9	0.23	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
<b>Total PFOS</b>	<b>1.2</b>	<b>J</b>	2.9	0.23	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
4:2 FTS	ND		1.1	0.31	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
<b>6:2 FTS</b>	<b>1.0</b>	<b>J</b>	1.1	0.49	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
8:2 FTS	ND		1.1	0.11	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
10:2 FTS	ND		1.1	0.12	ug/Kg	07/16/24 04:26	07/17/24 21:41		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	36		25 - 150			07/16/24 04:26	07/17/24 21:41		1
13C5 PFPeA	50		25 - 150			07/16/24 04:26	07/17/24 21:41		1
13C2 PFHxA	99		25 - 150			07/16/24 04:26	07/17/24 21:41		1
13C4 PFHpA	96		25 - 150			07/16/24 04:26	07/17/24 21:41		1
13C4 PFOA	91		25 - 150			07/16/24 04:26	07/17/24 21:41		1
13C5 PFNA	109		25 - 150			07/16/24 04:26	07/17/24 21:41		1
13C2 PFDA	150		25 - 150			07/16/24 04:26	07/17/24 21:41		1
13C2 PFUnA	143		25 - 150			07/16/24 04:26	07/17/24 21:41		1
13C3 PFBS	68		25 - 150			07/16/24 04:26	07/17/24 21:41		1
18O2 PFHxS	86		25 - 150			07/16/24 04:26	07/17/24 21:41		1
13C4 PFOS	117		25 - 150			07/16/24 04:26	07/17/24 21:41		1
M2-4:2 FTS	271	*5+	25 - 150			07/16/24 04:26	07/17/24 21:41		1
M2-6:2 FTS	200	*5+	25 - 150			07/16/24 04:26	07/17/24 21:41		1
M2-8:2 FTS	177	*5+	25 - 150			07/16/24 04:26	07/17/24 21:41		1
13C2 10:2 FTS	584	*5+	25 - 150			07/16/24 04:26	07/17/24 21:41		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

**Client Sample ID: Saltbush 4-4**

**Lab Sample ID: 320-113430-16**

**Matrix: Tissue**

Date Collected: 06/24/24 13:00

Date Received: 06/27/24 09:30

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.2		2.3	0.54	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Perfluoropentanoic acid (PFPeA)	ND		2.3	0.40	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Perfluorohexanoic acid (PFHxA)	0.74	J B	2.3	0.62	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Perfluoroheptanoic acid (PFHpA)	ND		2.3	0.26	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
L-Perfluoroctanoic acid	ND		2.3	0.46	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Br-Perfluoroctanoic acid	ND		2.3	0.46	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Total PFOA	ND		2.3	0.46	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Perfluorononanoic acid (PFNA)	ND		2.3	0.40	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Perfluorodecanoic acid (PFDA)	ND		2.3	0.23	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Perfluoroundecanoic acid (PFUnA)	ND		2.3	0.62	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Perfluorobutanesulfonic acid (PFBS)	ND		2.3	0.39	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.3	0.41	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Br-Perfluorohexanesulfonic acid	ND		2.3	0.34	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Total PFHxS	ND		2.3	0.34	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
L-Perfluorohexanesulfonic acid	ND		2.3	0.34	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.3	0.42	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
L-Perfluorooctanesulfonic acid	ND		5.7	0.46	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Br-Perfluorooctanesulfonic acid	ND		5.7	0.46	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Total PFOS	ND		5.7	0.46	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
4:2 FTS	ND		2.3	0.60	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
6:2 FTS	ND		2.3	0.96	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
8:2 FTS	ND		2.3	0.23	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
10:2 FTS	ND		2.3	0.23	ug/Kg	07/16/24 04:26	07/17/24 22:20		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	45		25 - 150			07/16/24 04:26	07/17/24 22:20		1
13C5 PFPeA	50		25 - 150			07/16/24 04:26	07/17/24 22:20		1
13C2 PFHxA	108		25 - 150			07/16/24 04:26	07/17/24 22:20		1
13C4 PFHpA	94		25 - 150			07/16/24 04:26	07/17/24 22:20		1
13C4 PFOA	96		25 - 150			07/16/24 04:26	07/17/24 22:20		1
13C5 PFNA	107		25 - 150			07/16/24 04:26	07/17/24 22:20		1
13C2 PFDA	133		25 - 150			07/16/24 04:26	07/17/24 22:20		1
13C2 PFUnA	122		25 - 150			07/16/24 04:26	07/17/24 22:20		1
13C3 PFBS	70		25 - 150			07/16/24 04:26	07/17/24 22:20		1
18O2 PFHxS	86		25 - 150			07/16/24 04:26	07/17/24 22:20		1
13C4 PFOS	113		25 - 150			07/16/24 04:26	07/17/24 22:20		1
M2-4:2 FTS	237	*5+	25 - 150			07/16/24 04:26	07/17/24 22:20		1
M2-6:2 FTS	162	*5+	25 - 150			07/16/24 04:26	07/17/24 22:20		1
M2-8:2 FTS	164	*5+	25 - 150			07/16/24 04:26	07/17/24 22:20		1
13C2 10:2 FTS	403	*5+	25 - 150			07/16/24 04:26	07/17/24 22:20		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

## Client Sample ID: Algae So

Date Collected: 06/24/24 11:00

Date Received: 06/27/24 09:30

## Lab Sample ID: 320-113430-21

Matrix: Tissue

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.6		0.78	0.18	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Perfluoropentanoic acid (PFPeA)	14		0.78	0.14	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Perfluorohexanoic acid (PFHxA)	21	B	0.78	0.21	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Perfluoroheptanoic acid (PFHpA)	4.6		0.78	0.091	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
L-Perfluorooctanoic acid	8.8		0.78	0.16	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Br-Perfluorooctanoic acid	0.70	J	0.78	0.16	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Total PFOA	9.5		0.78	0.16	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Perfluorononanoic acid (PFNA)	2.5		0.78	0.14	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Perfluorodecanoic acid (PFDA)	0.35	J	0.78	0.080	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Perfluoroundecanoic acid (PFUnA)	ND		0.78	0.21	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Perfluorobutanesulfonic acid (PFBS)	4.2		0.78	0.13	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Perfluoropentanesulfonic acid (PFPeS)	8.6		0.78	0.14	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Br-Perfluorohexanesulfonic acid	12		0.78	0.12	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Total PFHxS	71		0.78	0.12	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
L-Perfluorohexanesulfonic acid	58		0.78	0.12	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Perfluoroheptanesulfonic acid (PFHpS)	2.2		0.78	0.14	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
4:2 FTS	ND		0.78	0.21	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
6:2 FTS	26		0.78	0.33	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
8:2 FTS	0.53	J	0.78	0.078	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
10:2 FTS	0.092	J	0.78	0.079	ug/Kg	07/16/24 04:26	07/17/24 22:39		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	65		25 - 150				07/16/24 04:26	07/17/24 22:39	1
13C5 PFPeA	49		25 - 150				07/16/24 04:26	07/17/24 22:39	1
13C2 PFHxA	102		25 - 150				07/16/24 04:26	07/17/24 22:39	1
13C4 PFHpA	87		25 - 150				07/16/24 04:26	07/17/24 22:39	1
13C4 PFOA	87		25 - 150				07/16/24 04:26	07/17/24 22:39	1
13C5 PFNA	107		25 - 150				07/16/24 04:26	07/17/24 22:39	1
13C2 PFDA	144		25 - 150				07/16/24 04:26	07/17/24 22:39	1
13C2 PFUnA	146		25 - 150				07/16/24 04:26	07/17/24 22:39	1
13C3 PFBS	78		25 - 150				07/16/24 04:26	07/17/24 22:39	1
18O2 PFHxS	80		25 - 150				07/16/24 04:26	07/17/24 22:39	1
13C4 PFOS	98		25 - 150				07/16/24 04:26	07/17/24 22:39	1
M2-4:2 FTS	170	*5+	25 - 150				07/16/24 04:26	07/17/24 22:39	1
M2-6:2 FTS	118		25 - 150				07/16/24 04:26	07/17/24 22:39	1
M2-8:2 FTS	135		25 - 150				07/16/24 04:26	07/17/24 22:39	1
13C2 10:2 FTS	631	*5+	25 - 150				07/16/24 04:26	07/17/24 22:39	1

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanesulfonic acid	83		20	1.6	ug/Kg	07/16/24 04:26	07/20/24 15:32		10
Br-Perfluorooctanesulfonic acid	37		20	1.6	ug/Kg	07/16/24 04:26	07/20/24 15:32		10
Total PFOS	120		20	1.6	ug/Kg	07/16/24 04:26	07/20/24 15:32		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	97		25 - 150				07/16/24 04:26	07/20/24 15:32	10

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# Isotope Dilution Summary

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-113430-9	Saltbush 2-1	45	51	108	97	91	101	124	108
320-113430-10	Saltbush 2-2	42	53	101	87	92	106	130	101
320-113430-11	Saltbush 2-3	31	50	109	91	90	107	136	106
320-113430-12	Saltbush 2-4	36	53	105	91	89	112	146	129
320-113430-13	Saltbush 4-1	42		108	92	88	100	135	127
320-113430-13 - DL	Saltbush 4-1		78						
320-113430-14	Saltbush 4-2	39	49	96	92	92	111	153 *5+	138
320-113430-15	Saltbush 4-3	36	50	99	96	91	109	150	143
320-113430-16	Saltbush 4-4	45	50	108	94	96	107	133	122
320-113430-21	Algae So	65	49	102	87	87	107	144	146
320-113430-21 - DL	Algae So								
LCS 320-779766/2-A	Lab Control Sample	88	95	99	96	96	93	79	67
LCSD 320-779766/3-A	Lab Control Sample Dup	91	89	100	94	94	97	83	73
MB 320-779766/1-A	Method Blank	90	96	101	92	94	95	80	69
Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)	
		68	87	107	289 *5+	170 *5+	162 *5+	412 *5+	
320-113430-9	Saltbush 2-1	65	84	113	242 *5+	176 *5+	162 *5+	577 *5+	
320-113430-10	Saltbush 2-2	69	83	112	215 *5+	167 *5+	196 *5+	376 *5+	
320-113430-11	Saltbush 2-3	71	83	114	226 *5+	162 *5+	180 *5+	621 *5+	
320-113430-12	Saltbush 2-4	66		88	209 *5+		168 *5+	553 *5+	
320-113430-13	Saltbush 4-1		72	95		94			
320-113430-13 - DL	Saltbush 4-1	64	85	110	238 *5+	188 *5+	201 *5+	576 *5+	
320-113430-14	Saltbush 4-2	68	86	117	271 *5+	200 *5+	177 *5+	584 *5+	
320-113430-15	Saltbush 4-3	70	86	113	237 *5+	162 *5+	164 *5+	403 *5+	
320-113430-16	Saltbush 4-4	78	80	98	170 *5+	118	135	631 *5+	
320-113430-21	Algae So			97					
320-113430-21 - DL	Algae So								
LCS 320-779766/2-A	Lab Control Sample	92	92	94	108	111	84	167 *5+	
LCSD 320-779766/3-A	Lab Control Sample Dup	89	90	94	99	111	85	193 *5+	
MB 320-779766/1-A	Method Blank	88	95	94	107	107	84	197 *5+	

### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 M102FTS = 13C2 10:2 FTS

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# QC Sample Results

Client: University of New Mexico  
Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

**Lab Sample ID: MB 320-779766/1-A**

**Matrix: Tissue**

**Analysis Batch: 781472**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 779766**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Perfluorohexanoic acid (PFHxA)	0.401	J	1.0	0.27	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Total PFOA	ND		1.0	0.20	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.10	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.27	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Total PFHxS	ND		1.0	0.15	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
L-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Br-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
Total PFOS	ND		2.5	0.20	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
4:2 FTS	ND		1.0	0.27	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
6:2 FTS	ND		1.0	0.42	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
8:2 FTS	ND		1.0	0.10	ug/Kg		07/16/24 04:26	07/17/24 18:46	1
10:2 FTS	ND		1.0	0.10	ug/Kg		07/16/24 04:26	07/17/24 18:46	1

Isotope Dilution	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	90		25 - 150		07/16/24 04:26	07/17/24 18:46
13C5 PFPeA	96		25 - 150		07/16/24 04:26	07/17/24 18:46
13C2 PFHxA	101		25 - 150		07/16/24 04:26	07/17/24 18:46
13C4 PFHpA	92		25 - 150		07/16/24 04:26	07/17/24 18:46
13C4 PFOA	94		25 - 150		07/16/24 04:26	07/17/24 18:46
13C5 PFNA	95		25 - 150		07/16/24 04:26	07/17/24 18:46
13C2 PFDA	80		25 - 150		07/16/24 04:26	07/17/24 18:46
13C2 PFUnA	69		25 - 150		07/16/24 04:26	07/17/24 18:46
13C3 PFBS	88		25 - 150		07/16/24 04:26	07/17/24 18:46
18O2 PFHxS	95		25 - 150		07/16/24 04:26	07/17/24 18:46
13C4 PFOS	94		25 - 150		07/16/24 04:26	07/17/24 18:46
M2-4:2 FTS	107		25 - 150		07/16/24 04:26	07/17/24 18:46
M2-6:2 FTS	107		25 - 150		07/16/24 04:26	07/17/24 18:46
M2-8:2 FTS	84		25 - 150		07/16/24 04:26	07/17/24 18:46
13C2 10:2 FTS	197	*5+	25 - 150		07/16/24 04:26	07/17/24 18:46

**Lab Sample ID: LCS 320-779766/2-A**

**Matrix: Tissue**

**Analysis Batch: 781472**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 779766**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	10.0	10.4		ug/Kg		104	76 - 136

Eurofins Sacramento

# QC Sample Results

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-779766/2-A**

**Matrix: Tissue**

**Analysis Batch: 781472**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 779766**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoropentanoic acid (PFPeA)	10.0	9.15		ug/Kg		92	69 - 129
Perfluorohexanoic acid (PFHxA)	10.0	10.7		ug/Kg		107	71 - 131
Perfluoroheptanoic acid (PFHpA)	10.0	9.64		ug/Kg		96	71 - 131
L-Perfluoroctanoic acid	10.0	10.5		ug/Kg		105	72 - 132
Total PFOA	10.0	10.5		ug/Kg		105	
Perfluorononanoic acid (PFNA)	10.0	9.95		ug/Kg		99	73 - 133
Perfluorodecanoic acid (PFDA)	10.0	10.4		ug/Kg		104	72 - 132
Perfluoroundecanoic acid (PFUnA)	10.0	10.8		ug/Kg		108	66 - 126
Perfluorobutanesulfonic acid (PFBS)	8.88	9.62		ug/Kg		108	69 - 129
Perfluoropentanesulfonic acid (PFPeS)	9.40	9.51		ug/Kg		101	66 - 126
Total PFHxS	9.12	9.19		ug/Kg		101	
L-Perfluorohexanesulfonic acid	9.12	9.19		ug/Kg		101	62 - 122
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.6		ug/Kg		111	76 - 136
L-Perfluoroctanesulfonic acid	9.30	9.11		ug/Kg		98	68 - 141
Total PFOS	9.30	9.11		ug/Kg		98	
4:2 FTS	9.38	9.06		ug/Kg		97	68 - 143
6:2 FTS	9.52	9.17		ug/Kg		96	73 - 139
8:2 FTS	9.60	10.3		ug/Kg		107	75 - 135
10:2 FTS	9.66	7.91		ug/Kg		82	69 - 145

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	88		25 - 150
13C5 PFPeA	95		25 - 150
13C2 PFHxA	99		25 - 150
13C4 PFHpA	96		25 - 150
13C4 PFOA	96		25 - 150
13C5 PFNA	93		25 - 150
13C2 PFDA	79		25 - 150
13C2 PFUnA	67		25 - 150
13C3 PFBS	92		25 - 150
18O2 PFHxS	92		25 - 150
13C4 PFOS	94		25 - 150
M2-4:2 FTS	108		25 - 150
M2-6:2 FTS	111		25 - 150
M2-8:2 FTS	84		25 - 150
13C2 10:2 FTS	167 *5+		25 - 150

**Lab Sample ID: LCSD 320-779766/3-A**

**Matrix: Tissue**

**Analysis Batch: 781472**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 779766**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	10.0	10.2		ug/Kg		102	76 - 136	2	30
Perfluoropentanoic acid (PFPeA)	10.0	9.85		ug/Kg		99	69 - 129	7	30
Perfluorohexanoic acid (PFHxA)	10.0	9.61		ug/Kg		96	71 - 131	10	30
Perfluoroheptanoic acid (PFHpA)	10.0	10.5		ug/Kg		105	71 - 131	8	30

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-779766/3-A**

**Matrix: Tissue**

**Analysis Batch: 781472**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 779766**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
L-Perfluoroctanoic acid	10.0	10.8		ug/Kg		108	72 - 132	3	30
Total PFOA	10.0	10.8		ug/Kg		108		3	
Perfluorononanoic acid (PFNA)	10.0	9.85		ug/Kg		99	73 - 133	1	30
Perfluorodecanoic acid (PFDA)	10.0	10.3		ug/Kg		103	72 - 132	2	30
Perfluoroundecanoic acid (PFUnA)	10.0	10.6		ug/Kg		106	66 - 126	2	30
Perfluorobutanesulfonic acid (PFBS)	8.88	9.76		ug/Kg		110	69 - 129	1	30
Perfluoropentanesulfonic acid (PFPeS)	9.40	10.4		ug/Kg		110	66 - 126	9	30
Total PFHxS	9.12	9.03		ug/Kg		99		2	
L-Perfluorohexanesulfonic acid	9.12	9.03		ug/Kg		99	62 - 122	2	30
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.2		ug/Kg		107	76 - 136	4	30
L-Perfluoroctanesulfonic acid	9.30	9.26		ug/Kg		100	68 - 141	2	30
Total PFOS	9.30	9.26		ug/Kg		100		2	
4:2 FTS	9.38	9.67		ug/Kg		103	68 - 143	6	30
6:2 FTS	9.52	9.78		ug/Kg		103	73 - 139	6	30
8:2 FTS	9.60	9.90		ug/Kg		103	75 - 135	4	30
10:2 FTS	9.66	8.09		ug/Kg		84	69 - 145	2	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	91		25 - 150
13C5 PFPeA	89		25 - 150
13C2 PFHxA	100		25 - 150
13C4 PFHpA	94		25 - 150
13C4 PFOA	94		25 - 150
13C5 PFNA	97		25 - 150
13C2 PFDA	83		25 - 150
13C2 PFUnA	73		25 - 150
13C3 PFBS	89		25 - 150
18O2 PFHxS	90		25 - 150
13C4 PFOS	94		25 - 150
M2-4:2 FTS	99		25 - 150
M2-6:2 FTS	111		25 - 150
M2-8:2 FTS	85		25 - 150
13C2 10:2 FTS	193 *5+		25 - 150

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# QC Association Summary

Client: University of New Mexico  
Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

## LCMS

### Pre Prep Batch: 779760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113430-9	Saltbush 2-1	Total/NA	Tissue	In-House	
320-113430-10	Saltbush 2-2	Total/NA	Tissue	In-House	
320-113430-11	Saltbush 2-3	Total/NA	Tissue	In-House	
320-113430-12	Saltbush 2-4	Total/NA	Tissue	In-House	
320-113430-13 - DL	Saltbush 4-1	Total/NA	Tissue	In-House	
320-113430-13	Saltbush 4-1	Total/NA	Tissue	In-House	
320-113430-14	Saltbush 4-2	Total/NA	Tissue	In-House	
320-113430-15	Saltbush 4-3	Total/NA	Tissue	In-House	
320-113430-16	Saltbush 4-4	Total/NA	Tissue	In-House	
320-113430-21 - DL	Algae So	Total/NA	Tissue	In-House	
320-113430-21	Algae So	Total/NA	Tissue	In-House	

### Prep Batch: 779766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113430-9	Saltbush 2-1	Total/NA	Tissue	SHAKE	779760
320-113430-10	Saltbush 2-2	Total/NA	Tissue	SHAKE	779760
320-113430-11	Saltbush 2-3	Total/NA	Tissue	SHAKE	779760
320-113430-12	Saltbush 2-4	Total/NA	Tissue	SHAKE	779760
320-113430-13	Saltbush 4-1	Total/NA	Tissue	SHAKE	779760
320-113430-13 - DL	Saltbush 4-1	Total/NA	Tissue	SHAKE	779760
320-113430-14	Saltbush 4-2	Total/NA	Tissue	SHAKE	779760
320-113430-15	Saltbush 4-3	Total/NA	Tissue	SHAKE	779760
320-113430-16	Saltbush 4-4	Total/NA	Tissue	SHAKE	779760
320-113430-21 - DL	Algae So	Total/NA	Tissue	SHAKE	779760
320-113430-21	Algae So	Total/NA	Tissue	SHAKE	779760
MB 320-779766/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-779766/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-779766/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

### Analysis Batch: 781472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113430-9	Saltbush 2-1	Total/NA	Tissue	B/L/T PFAS	779766
320-113430-10	Saltbush 2-2	Total/NA	Tissue	B/L/T PFAS	779766
320-113430-11	Saltbush 2-3	Total/NA	Tissue	B/L/T PFAS	779766
320-113430-12	Saltbush 2-4	Total/NA	Tissue	B/L/T PFAS	779766
320-113430-13	Saltbush 4-1	Total/NA	Tissue	B/L/T PFAS	779766
320-113430-14	Saltbush 4-2	Total/NA	Tissue	B/L/T PFAS	779766
320-113430-15	Saltbush 4-3	Total/NA	Tissue	B/L/T PFAS	779766
320-113430-16	Saltbush 4-4	Total/NA	Tissue	B/L/T PFAS	779766
320-113430-21	Algae So	Total/NA	Tissue	B/L/T PFAS	779766
MB 320-779766/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	779766
LCS 320-779766/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	779766
LCSD 320-779766/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	779766

### Analysis Batch: 781907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113430-13 - DL	Saltbush 4-1	Total/NA	Tissue	B/L/T PFAS	779766

### Analysis Batch: 782156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113430-21 - DL	Algae So	Total/NA	Tissue	B/L/T PFAS	779766

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

## Client Sample ID: Saltbush 2-1

Date Collected: 06/25/24 08:00

Date Received: 06/27/24 09:30

## Lab Sample ID: 320-113430-9

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	779760	07/15/24 17:19	JS	EET SAC
Total/NA	Prep	SHAKE			0.60 g	10.0 mL	779766	07/16/24 04:26	SJ	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	781472	07/17/24 19:44	C1P	EET SAC

## Client Sample ID: Saltbush 2-2

Date Collected: 06/25/24 08:30

Date Received: 06/27/24 09:30

## Lab Sample ID: 320-113430-10

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	779760	07/15/24 17:19	JS	EET SAC
Total/NA	Prep	SHAKE			0.60 g	10.0 mL	779766	07/16/24 04:26	SJ	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	781472	07/17/24 20:04	C1P	EET SAC

## Client Sample ID: Saltbush 2-3

Date Collected: 06/25/24 09:00

Date Received: 06/27/24 09:30

## Lab Sample ID: 320-113430-11

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	779760	07/15/24 17:19	JS	EET SAC
Total/NA	Prep	SHAKE			0.71 g	10.0 mL	779766	07/16/24 04:26	SJ	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	781472	07/17/24 20:23	C1P	EET SAC

## Client Sample ID: Saltbush 2-4

Date Collected: 06/25/24 10:00

Date Received: 06/27/24 09:30

## Lab Sample ID: 320-113430-12

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	779760	07/15/24 17:19	JS	EET SAC
Total/NA	Prep	SHAKE			0.61 g	10.0 mL	779766	07/16/24 04:26	SJ	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	781472	07/17/24 20:42	C1P	EET SAC

## Client Sample ID: Saltbush 4-1

Date Collected: 06/24/24 15:00

Date Received: 06/27/24 09:30

## Lab Sample ID: 320-113430-13

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	779760	07/15/24 17:19	JS	EET SAC
Total/NA	Prep	SHAKE			0.62 g	10.0 mL	779766	07/16/24 04:26	SJ	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	781472	07/17/24 21:02	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	779760	07/15/24 17:19	JS	EET SAC
Total/NA	Prep	SHAKE	DL		0.62 g	10.0 mL	779766	07/16/24 04:26	SJ	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	781907	07/19/24 18:00	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

## Client Sample ID: Saltbush 4-2

Date Collected: 06/24/24 14:00

Date Received: 06/27/24 09:30

## Lab Sample ID: 320-113430-14

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	779760	07/15/24 17:19	JS	EET SAC
Total/NA	Prep	SHAKE			0.74 g	10.0 mL	779766	07/16/24 04:26	SJ	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	781472	07/17/24 21:21	C1P	EET SAC

## Client Sample ID: Saltbush 4-3

Date Collected: 06/24/24 13:30

Date Received: 06/27/24 09:30

## Lab Sample ID: 320-113430-15

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	779760	07/15/24 17:19	JS	EET SAC
Total/NA	Prep	SHAKE			0.87 g	10.0 mL	779766	07/16/24 04:26	SJ	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	781472	07/17/24 21:41	C1P	EET SAC

## Client Sample ID: Saltbush 4-4

Date Collected: 06/24/24 13:00

Date Received: 06/27/24 09:30

## Lab Sample ID: 320-113430-16

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	779760	07/15/24 17:19	JS	EET SAC
Total/NA	Prep	SHAKE			0.44 g	10.0 mL	779766	07/16/24 04:26	SJ	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	781472	07/17/24 22:20	C1P	EET SAC

## Client Sample ID: Algae So

Date Collected: 06/24/24 11:00

Date Received: 06/27/24 09:30

## Lab Sample ID: 320-113430-21

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	779760	07/15/24 17:19	JS	EET SAC
Total/NA	Prep	SHAKE			1.28 g	10.0 mL	779766	07/16/24 04:26	SJ	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	781472	07/17/24 22:39	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	779760	07/15/24 17:19	JS	EET SAC
Total/NA	Prep	SHAKE	DL		1.28 g	10.0 mL	779766	07/16/24 04:26	SJ	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	782156	07/20/24 15:32	C1P	EET SAC

### Laboratory References:

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

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# Accreditation/Certification Summary

Client: University of New Mexico

Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

## Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468	01-20-27
Arizona	State	AZ0708	08-11-24
Arkansas DEQ	State	88-0691	05-18-25
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-24
Florida	NELAP	E87570	06-30-25
Georgia	State	4040	01-29-25
Hawaii	State	Eurofins Sacramento	01-29-25
Illinois	NELAP	200060	03-31-25
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-25
Louisiana (All)	NELAP	01944	06-30-25
Maine	State	CA00004	04-14-26
Michigan	State	9947	01-29-25
Nevada	State	CA00044	07-31-25
New Hampshire	NELAP	2997	04-19-25
New Jersey	NELAP	CA005	06-30-25
New York	NELAP	11666	04-01-25
Ohio	State	41252	01-29-25
Oregon	NELAP	4040	01-29-25
Texas	NELAP	T104704399-23-17	05-31-25
US Fish & Wildlife	US Federal Programs	A22139	04-30-25
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-25
Virginia	NELAP	460278	03-14-25
Washington	State	C581	05-05-25
West Virginia (DW)	State	9930C	01-31-25
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Sacramento

## Method Summary

Client: University of New Mexico  
Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

Method	Method Description	Protocol	Laboratory
B/L/T PFAS	Branched, Linear and Total PFAS	EPA	EET SAC
In-House	Tissue Preparation/Homgenization	NOAA	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

### Protocol References:

EPA = US Environmental Protection Agency

NOAA = National Marine Fisheries Service, National Oceanic And Atmospheric Administration, Seattle, WA, November 1988

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

### Laboratory References:

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

# Sample Summary

Client: University of New Mexico  
Project/Site: HollomanLake PFAS Research

Job ID: 320-113430-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-113430-9	Saltbush 2-1	Tissue	06/25/24 08:00	06/27/24 09:30
320-113430-10	Saltbush 2-2	Tissue	06/25/24 08:30	06/27/24 09:30
320-113430-11	Saltbush 2-3	Tissue	06/25/24 09:00	06/27/24 09:30
320-113430-12	Saltbush 2-4	Tissue	06/25/24 10:00	06/27/24 09:30
320-113430-13	Saltbush 4-1	Tissue	06/24/24 15:00	06/27/24 09:30
320-113430-14	Saltbush 4-2	Tissue	06/24/24 14:00	06/27/24 09:30
320-113430-15	Saltbush 4-3	Tissue	06/24/24 13:30	06/27/24 09:30
320-113430-16	Saltbush 4-4	Tissue	06/24/24 13:00	06/27/24 09:30
320-113430-21	Algae So	Tissue	06/24/24 11:00	06/27/24 09:30

## Chain of Custody Record

Client Contact		Report To: Jean-Luc Cartron		Site Contact:		Date: 6/26/2024		COC No		
Daniel B. Stephens & Associates 6020 Academy Road NE, Suite 100 Albuquerque/NM/87109-3315 Phone: 505-822-9400 Tel. Project Name: Holloman Lake PFAS Research Site: Holloman Lake Otero Co New Mexico P O #		email: jcartron@geo-logic.com, jlec@unm.edu		Lab Contact: Linda Laver		Carrier: FedEx		of _____ COCs		
		Analysis Turnaround Time						Job No		
		Business Days (BD)						Field Sampler		
		TAT if different from Above _____								
		<input type="checkbox"/> 2 weeks								
		<input type="checkbox"/> 1 week								
		<input type="checkbox"/> 2 days								
		<input type="checkbox"/> 1 day								
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Entered Sample	Sample Specific Notes:		
Soil NE2-1		6/25/24	8:00am	Soil		1				
Soil NE2-2		6/25/24	8:30am	Soil		1				
Soil NE 2-3		6/25/24	9:00am	Soil		1				
Soil NE 2-4		6/25/24	10:00am	Soil		1				
Soil 4-1		6/24/24	3:00pm	Soil		1				
Soil 4-2		6/24/24	2:00pm	Soil		1				
Soil 4-3		6/24/24	1:30pm	Soil		1				
Soil 4-4		6/24/24	1:00pm	Soil		1				
Saltbush 2-1		6/25/24	8:00am	Plant tissue		1				
Saltbush 2-2		6/25/24	8:30am	Plant tissue		1				
Saltbush 2-3		6/25/24	9:00am	Plant tissue		1				
Saltbush 2-4		6/25/24	10:00am	Plant tissue		1				
Saltbush 4-1		6/24/24	3:00pm	Plant tissue		1				
Saltbush 4-2		6/24/24	2:00pm	Plant tissue		1				
Saltbush 4-3		6/24/24	1:30pm	Plant tissue		1				
Saltbush 4-4		6/24/24	1:00pm	Plant tissue		1				
H2O West		6/25/24	12:30pm	Water		1				
H2O -So		6/24/24	11:00am	Water		1				
H2O North Inlet		6/25/24	10:00am	Water		1				
H2O East Inlet		6/25/24	10:15am	Water		1				
Algae So		6/24/24	11:00am	Plant tissue		1				
Preservation Used. 1= Ice, 2= HCl, 3= H <sub>2</sub> SO <sub>4</sub> , 4=HNO <sub>3</sub> , 5=NaOH, 6= Other										
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant    Poison B    Unknown <input type="checkbox"/>					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months										
Special Instructions/QC Requirements & Comments:										
Relinquished by: Jean-Luc Cartron		Company: DBS&A		Date/Time: 6/26/24		Received by: <i>Driver</i>		Company: FedEx		Date/Time: 4pm 6/26/24
Relinquished by:		Company:		Date/Time:		Received by: <i>S</i>		Company: EETEAC		Date/Time: 6/27/24 09:30
Relinquished by:		Company:		Date/Time:		Received by: <i>S</i>		Company:		Date/Time:

19.8cc

14 13 12 11 10 9 8 7 6 5 4 3 2 1



## Environment Testing

Loc 320

113430

## Sacramento Sample Receiving Notes (SSRN)

Tracking # 777084327112

Job \_\_\_\_\_

FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
 GSL / OnTrac / Goldstreak / USPS / Other

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC

Therm. ID: <u>607</u>	Corr. Factor (+/-) <u>0.1</u> °C	Notes: _____ <u>w/ cooling agent</u> _____ _____ _____	
Ice _____	Wet _____	Gel _____	Other <u>None</u>
Cooler Custody Seal: <u>—</u>			
Cooler ID: <u>—</u>			
Temp Observed <u>19.8</u> °C		Corrected: <u>19.8</u> °C	
From Temp Blank <input type="checkbox"/>		Sample <input checked="" type="checkbox"/>	
<b>Opening/Processing The Shipment</b> <u>Yes</u> <u>No</u> <u>NA</u>			
Cooler compromised/tampered with? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>			
Cooler Temperature is acceptable? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>			
Frozen samples show signs of thaw? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>			
Initials <u>SD</u>		Date. <u>6/27/24</u>	
<b>Unpacking/Labeling The Samples</b> <u>Yes</u> <u>No</u> <u>NA</u>			
Containers are not broken or leaking? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Samples compromised/tampered with? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>			
COC is complete w/o discrepancies <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Sample custody seal? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>			
Sample containers have legible labels? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Sample date/times are provided? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Appropriate containers are used? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Sample bottles are completely filled? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Sample preservatives verified? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>			
Is the Field Sampler's name on COC? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>			
Samples w/o discrepancies? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Zero headspace?* <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>			
Alkalinity has no headspace? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>			
Perchlorate has headspace? (Methods 314, 331, 6850) <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>			
Multiphasic samples are not present? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")			
Initials <u>DM</u>		Date. <u>06/27/24</u>	
Trizma Lot #(s). _____ _____			
Ammonium _____ _____			
Acetate Lot #(s) _____ _____			
Login Completion			
Receipt Temperature on COC? <u>Yes</u> <u>No</u> <u>NA</u>			
NCM Filed? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Samples received within hold time? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Log Release checked in TALS? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			

*\*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")*

Initials DM Date. 06/27/24

Initials: DM Date 01/27/24

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Jean-Luc Cartron  
University of New Mexico  
Museum of Southwestern Biology  
Division of Mammals  
CERIA Bldg 83, Room 204  
Albuquerque, New Mexico 87131

Generated 8/16/2024 5:15:50 PM

## JOB DESCRIPTION

Holloman Lake\_Waters & Soils

## JOB NUMBER

320-113899-1

# Eurofins Sacramento

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northern California, LLC Project Manager.

## Authorization



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(916)374-4362

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# Definitions/Glossary

Client: University of New Mexico  
Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Qualifiers

LCMS	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
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.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	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

# Case Narrative

Client: University of New Mexico  
Project: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

**Job ID: 320-113899-1**

**Eurofins Sacramento**

## Job Narrative 320-113899-1

### Receipt

The samples were received on 7/18/2024 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3° C.

### Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and does not list the requested analyses. Based on communications with the client, the samples were logged in for PFAS (17 Analyte List by 537 Mod).

### LCMS

Method B/L/T PFAS: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. Hol-East H2O (320-113899-2)

Method B/L/T PFAS: Results for the following samples were reported from the analysis of a diluted extract due to matrix sample of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits. Hol-East H2O (320-113899-2), Hol-South H2O (320-113899-3), Hol-West H2O (320-113899-4), Hol NE4-0=1 Soils (320-113899-5), Hol NE4-900=4 Soils (320-113899-8) and Hol NE2-0=1 Soils (320-113899-9)

Method B/L/T PFAS: The "I" qualifier means the transition mass ratio for the indicated analyte was outside the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgment was used to positively identify the analyte. Hol-South H2O (320-113899-3), and Hol NE2-900=4 Soils (320-113899-12)

Method B/L/T PFAS: The matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 320-785917 has recoveries outside control limits for some analytes. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

### Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 320-781606.

Method 3535: The following samples were yellow in color following extraction. Hol-East H2O (320-113899-2), Hol-South H2O (320-113899-3) and Hol-West H2O (320-113899-4)

Method 3535: Due to the matrix, the following samples were prepared at a reduced volume from the standard operating procedure. The reporting limits (RLs) have been adjusted proportionately [2X]. Hol-East H2O (320-113899-2), Hol-South H2O (320-113899-3) and Hol-West H2O (320-113899-4)

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

# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Client Sample ID: Hol-North H2O

## Lab Sample ID: 320-113899-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	25		4.2	2.0	ng/L	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	160		1.7	0.41	ng/L	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	110		1.7	0.49	ng/L	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	21		1.7	0.21	ng/L	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	23		1.7	0.72	ng/L	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	4.0		1.7	0.72	ng/L	1		B/L/T PFAS	Total/NA
Total PFOA	27		1.7	0.72	ng/L	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	1.3 J		1.7	0.23	ng/L	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.66 J		1.7	0.26	ng/L	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	20		1.7	0.17	ng/L	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	15		1.7	0.25	ng/L	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	18		1.7	0.48	ng/L	1		B/L/T PFAS	Total/NA
Total PFHxS	100		1.7	0.48	ng/L	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	82		1.7	0.48	ng/L	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	3.6		1.7	0.16	ng/L	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	87		1.7	0.45	ng/L	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	60		1.7	0.45	ng/L	1		B/L/T PFAS	Total/NA
Total PFOS	150		1.7	0.45	ng/L	1		B/L/T PFAS	Total/NA
6:2 FTS	230		4.2	2.1	ng/L	1		B/L/T PFAS	Total/NA

## Client Sample ID: Hol-East H2O

## Lab Sample ID: 320-113899-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5500		200	96	ng/L	20		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	4000		80	10	ng/L	20		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	3200		80	34	ng/L	20		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	510		80	34	ng/L	20		B/L/T PFAS	Total/NA
Total PFOA	3700		80	34	ng/L	20		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	390		80	11	ng/L	20		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	13 J		80	12	ng/L	20		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4100		80	8.0	ng/L	20		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2800		80	12	ng/L	20		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	620		80	7.6	ng/L	20		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	6800		80	22	ng/L	20		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	8300		80	22	ng/L	20		B/L/T PFAS	Total/NA
Total PFOS	15000		80	22	ng/L	20		B/L/T PFAS	Total/NA
4:2 FTS	150		80	9.6	ng/L	20		B/L/T PFAS	Total/NA
6:2 FTS	13000		200	100	ng/L	20		B/L/T PFAS	Total/NA
8:2 FTS	45 J		80	18	ng/L	20		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	23000		400	98	ng/L	100		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	27000		400	120	ng/L	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	4900		400	110	ng/L	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	26000		400	110	ng/L	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	21000		400	110	ng/L	100		B/L/T PFAS	Total/NA

## Client Sample ID: Hol-South H2O

## Lab Sample ID: 320-113899-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4200		200	96	ng/L	20		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Client Sample ID: Hol-South H2O (Continued)

Lab Sample ID: 320-113899-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	2400		80	10	ng/L	20		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	710		80	34	ng/L	20		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	110		80	34	ng/L	20		B/L/T PFAS	Total/NA
Total PFOA	830		80	34	ng/L	20		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	44 J I		80	11	ng/L	20		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2800		80	8.0	ng/L	20		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1500		80	12	ng/L	20		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	2000		80	23	ng/L	20		B/L/T PFAS	Total/NA
Total PFHxS	8400		80	23	ng/L	20		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	6400		80	23	ng/L	20		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	69 J		80	7.6	ng/L	20		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	620		80	22	ng/L	20		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	610		80	22	ng/L	20		B/L/T PFAS	Total/NA
Total PFOS	1200		80	22	ng/L	20		B/L/T PFAS	Total/NA
4:2 FTS	120		80	9.6	ng/L	20		B/L/T PFAS	Total/NA
6:2 FTS	5900		200	100	ng/L	20		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	18000		400	98	ng/L	100		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	19000		400	120	ng/L	100		B/L/T PFAS	Total/NA

## Client Sample ID: Hol-West H2O

Lab Sample ID: 320-113899-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4400		200	96	ng/L	20		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	2400		80	10	ng/L	20		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	850		80	34	ng/L	20		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	140		80	34	ng/L	20		B/L/T PFAS	Total/NA
Total PFOA	990		80	34	ng/L	20		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	57 J		80	11	ng/L	20		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3000		80	8.0	ng/L	20		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1700		80	12	ng/L	20		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	2100		80	23	ng/L	20		B/L/T PFAS	Total/NA
Total PFHxS	8600		80	23	ng/L	20		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	6600		80	23	ng/L	20		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	91		80	7.6	ng/L	20		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	1200		80	22	ng/L	20		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	1100		80	22	ng/L	20		B/L/T PFAS	Total/NA
Total PFOS	2200		80	22	ng/L	20		B/L/T PFAS	Total/NA
4:2 FTS	130		80	9.6	ng/L	20		B/L/T PFAS	Total/NA
6:2 FTS	6000		200	100	ng/L	20		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	17000		400	98	ng/L	100		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	21000		400	120	ng/L	100		B/L/T PFAS	Total/NA

## Client Sample ID: Hol NE4-0=1 Soils

Lab Sample ID: 320-113899-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.3		0.20	0.046	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	8.8		0.20	0.041	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	14		0.20	0.031	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.0		0.20	0.038	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Client Sample ID: Hol NE4-0=1 Soils (Continued)

## Lab Sample ID: 320-113899-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	7.0		0.20	0.053	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.63		0.20	0.053	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	7.6		0.20	0.053	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	4.8		0.20	0.022	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.1		0.20	0.048	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.086 J		0.20	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.7		0.20	0.038	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPeS)	2.0		0.20	0.037	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	5.0		0.20	0.049	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	2.1		0.20	0.035	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	3.8 J		10	1.5	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFHxS - DL	29		10	1.5	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	25		10	1.5	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	350		10	2.2	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	160		10	2.2	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	500		10	2.2	ug/Kg	50		B/L/T PFAS	Total/NA
6:2 FTS - DL	46		10	1.4	ug/Kg	50		B/L/T PFAS	Total/NA

## Client Sample ID: Hol NE4-300=2 Soils

## Lab Sample ID: 320-113899-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.1		0.19	0.044	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PPeA)	0.84		0.19	0.039	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	2.6		0.19	0.030	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.4		0.19	0.037	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	1.0		0.19	0.051	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.18 J		0.19	0.051	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.2		0.19	0.051	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.14 J		0.19	0.021	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.38		0.19	0.037	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPeS)	0.36		0.19	0.036	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	2.1		0.19	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	8.0		0.19	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	5.9		0.19	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.086 J		0.19	0.047	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	1.7		0.19	0.041	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	1.2		0.19	0.041	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	2.9		0.19	0.041	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.17 J		0.19	0.026	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: Hol NE4-600=3 Soils

## Lab Sample ID: 320-113899-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.2		0.20	0.045	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PPeA)	0.20		0.20	0.040	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.41		0.20	0.030	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.36		0.20	0.037	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	0.20		0.20	0.052	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.20		0.20	0.052	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Client Sample ID: Hol NE4-600=3 Soils (Continued)

## Lab Sample ID: 320-113899-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	0.058	J	0.20	0.022	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.079	J	0.20	0.037	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.16	J	0.20	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.90		0.20	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.74		0.20	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	0.44		0.20	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	0.30		0.20	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	0.74		0.20	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.14	J	0.20	0.027	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: Hol NE4-900=4 Soils

## Lab Sample ID: 320-113899-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.1		0.19	0.044	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PPPeA)	0.71		0.19	0.039	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	2.6		0.19	0.029	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.0		0.19	0.036	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.80		0.19	0.045	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.22		0.19	0.040	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.1		0.19	0.036	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPPeS)	1.3		0.19	0.035	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.59		0.19	0.026	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.38		0.19	0.033	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid - DL	47		9.5	2.5	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid - DL	4.9	J	9.5	2.5	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOA - DL	52		9.5	2.5	ug/Kg	50		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	21		9.5	1.0	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	18		9.5	1.4	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFHxS - DL	140		9.5	1.4	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	120		9.5	1.4	ug/Kg	50		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	13		9.5	2.3	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	470		9.5	2.0	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	240		9.5	2.0	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	710		9.5	2.0	ug/Kg	50		B/L/T PFAS	Total/NA

## Client Sample ID: Hol NE2-0=1 Soils

## Lab Sample ID: 320-113899-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	8.0		0.19	0.044	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	14		0.19	0.021	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.8		0.19	0.046	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.19		0.19	0.040	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	9.7		0.19	0.036	ug/Kg	1		B/L/T PFAS	Total/NA
4:2 FTS	0.23		0.19	0.049	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	3.5		0.19	0.033	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.055	J	0.19	0.036	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PPPeA) - DL	39		19	3.9	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	91		19	3.0	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	27		19	3.6	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid - DL	27		19	5.1	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Client Sample ID: Hol NE2-0=1 Soils (Continued)

## Lab Sample ID: 320-113899-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Br-Perfluorooctanoic acid - DL	5.1	J	19	5.1	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	32		19	5.1	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - DL	14	J	19	3.5	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	23		19	2.8	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	110		19	2.8	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	90		19	2.8	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	11	J	19	4.7	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	670		19	4.1	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	350		19	4.1	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	1000		19	4.1	ug/Kg	100		B/L/T PFAS	Total/NA
6:2 FTS - DL	120		19	2.6	ug/Kg	100		B/L/T PFAS	Total/NA

## Client Sample ID: Hol NE2-300=2 Soils

## Lab Sample ID: 320-113899-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.66		0.20	0.045	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	0.18	J	0.20	0.040	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	1.2		0.20	0.030	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.0		0.20	0.037	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	1.0		0.20	0.052	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	0.30		0.20	0.052	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.3		0.20	0.052	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.079	J	0.20	0.021	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.21		0.20	0.037	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.21		0.20	0.036	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	1.7		0.20	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	8.0		0.20	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	6.4		0.20	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	0.85		0.20	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	0.51		0.20	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1.4		0.20	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.073	J	0.20	0.026	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: Hol NE2-600=3 Soils

## Lab Sample ID: 320-113899-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.11	J	0.19	0.043	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.16	J	0.19	0.029	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.52		0.19	0.036	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	1.7		0.19	0.050	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	0.20		0.19	0.050	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.9		0.19	0.050	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.30		0.19	0.021	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.048	J	0.19	0.036	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.37		0.19	0.027	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	3.5		0.19	0.027	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	3.1		0.19	0.027	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.098	J	0.19	0.046	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	3.3		0.19	0.040	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## **Client Sample ID: Hol NE2-600=3 Soils (Continued)**

## **Lab Sample ID: 320-113899-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Br-Perfluorooctanesulfonic acid	1.5		0.19	0.040	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	4.9		0.19	0.040	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.085	J	0.19	0.025	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: Hol NE2-900=4 Soils**

## **Lab Sample ID: 320-113899-12**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.15	J	0.19	0.045	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	0.15	J	0.19	0.040	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.97		0.19	0.030	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.79	F1	0.19	0.037	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	0.29		0.19	0.052	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	0.11	J	0.19	0.052	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.40		0.19	0.052	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.089	J I	0.19	0.021	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.28		0.19	0.037	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.37	F1	0.19	0.036	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.86		0.19	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	2.8	F1	0.19	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	1.9	F1	0.19	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	1.1	F1	0.19	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	0.60		0.19	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1.7	F1	0.19	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.070	J	0.19	0.026	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Client Sample ID: Hol-North H2O

Date Collected: 07/15/24 08:00

Date Received: 07/18/24 09:20

## Lab Sample ID: 320-113899-1

Matrix: Water

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	25		4.2	2.0	ng/L	07/19/24 12:30	08/09/24 15:58		1
Perfluoropentanoic acid (PFPeA)	160		1.7	0.41	ng/L	07/19/24 12:30	08/09/24 15:58		1
Perfluorohexanoic acid (PFHxA)	110		1.7	0.49	ng/L	07/19/24 12:30	08/09/24 15:58		1
Perfluoroheptanoic acid (PFHpA)	21		1.7	0.21	ng/L	07/19/24 12:30	08/09/24 15:58		1
L-Perfluorooctanoic acid	23		1.7	0.72	ng/L	07/19/24 12:30	08/09/24 15:58		1
Br-Perfluorooctanoic acid	4.0		1.7	0.72	ng/L	07/19/24 12:30	08/09/24 15:58		1
Total PFOA	27		1.7	0.72	ng/L	07/19/24 12:30	08/09/24 15:58		1
Perfluorononanoic acid (PFNA)	1.3 J		1.7	0.23	ng/L	07/19/24 12:30	08/09/24 15:58		1
Perfluorodecanoic acid (PFDA)	0.66 J		1.7	0.26	ng/L	07/19/24 12:30	08/09/24 15:58		1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.93	ng/L	07/19/24 12:30	08/09/24 15:58		1
Perfluorobutanesulfonic acid (PFBS)	20		1.7	0.17	ng/L	07/19/24 12:30	08/09/24 15:58		1
Perfluoropentanesulfonic acid (PFPeS)	15		1.7	0.25	ng/L	07/19/24 12:30	08/09/24 15:58		1
Br-Perfluorohexanesulfonic acid	18		1.7	0.48	ng/L	07/19/24 12:30	08/09/24 15:58		1
Total PFHxS	100		1.7	0.48	ng/L	07/19/24 12:30	08/09/24 15:58		1
L-Perfluorohexanesulfonic acid	82		1.7	0.48	ng/L	07/19/24 12:30	08/09/24 15:58		1
Perfluoroheptanesulfonic acid (PFHpS)	3.6		1.7	0.16	ng/L	07/19/24 12:30	08/09/24 15:58		1
L-Perfluoroctanesulfonic acid	87		1.7	0.45	ng/L	07/19/24 12:30	08/09/24 15:58		1
Br-Perfluoroctanesulfonic acid	60		1.7	0.45	ng/L	07/19/24 12:30	08/09/24 15:58		1
Total PFOS	150		1.7	0.45	ng/L	07/19/24 12:30	08/09/24 15:58		1
4:2 FTS	ND		1.7	0.20	ng/L	07/19/24 12:30	08/09/24 15:58		1
6:2 FTS	230		4.2	2.1	ng/L	07/19/24 12:30	08/09/24 15:58		1
8:2 FTS	ND		1.7	0.39	ng/L	07/19/24 12:30	08/09/24 15:58		1
10:2 FTS	ND		1.7	0.56	ng/L	07/19/24 12:30	08/09/24 15:58		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	76		25 - 150			07/19/24 12:30	08/09/24 15:58		1
13C5 PFPeA	99		25 - 150			07/19/24 12:30	08/09/24 15:58		1
13C2 PFHxA	99		25 - 150			07/19/24 12:30	08/09/24 15:58		1
13C4 PFHpA	104		25 - 150			07/19/24 12:30	08/09/24 15:58		1
13C4 PFOA	99		25 - 150			07/19/24 12:30	08/09/24 15:58		1
13C5 PFNA	98		25 - 150			07/19/24 12:30	08/09/24 15:58		1
13C2 PFDA	92		25 - 150			07/19/24 12:30	08/09/24 15:58		1
13C2 PFUnA	82		25 - 150			07/19/24 12:30	08/09/24 15:58		1
13C3 PFBS	90		25 - 150			07/19/24 12:30	08/09/24 15:58		1
18O2 PFHxS	95		25 - 150			07/19/24 12:30	08/09/24 15:58		1
13C4 PFOS	92		25 - 150			07/19/24 12:30	08/09/24 15:58		1
M2-4:2 FTS	106		25 - 150			07/19/24 12:30	08/09/24 15:58		1
M2-6:2 FTS	103		25 - 150			07/19/24 12:30	08/09/24 15:58		1
M2-8:2 FTS	87		25 - 150			07/19/24 12:30	08/09/24 15:58		1
13C2 10:2 FTS	73		25 - 150			07/19/24 12:30	08/09/24 15:58		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

**Client Sample ID: Hol-East H2O**

**Lab Sample ID: 320-113899-2**

**Matrix: Water**

Date Collected: 07/15/24 08:30  
 Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5500		200	96	ng/L	07/19/24 12:30	07/25/24 16:13	20	5
Perfluoroheptanoic acid (PFHpA)	4000		80	10	ng/L	07/19/24 12:30	07/25/24 16:13	20	6
L-Perfluoroctanoic acid	3200		80	34	ng/L	07/19/24 12:30	07/25/24 16:13	20	7
Br-Perfluoroctanoic acid	510		80	34	ng/L	07/19/24 12:30	07/25/24 16:13	20	8
Total PFOA	3700		80	34	ng/L	07/19/24 12:30	07/25/24 16:13	20	9
Perfluorononanoic acid (PFNA)	390		80	11	ng/L	07/19/24 12:30	07/25/24 16:13	20	10
Perfluorodecanoic acid (PFDA)	13 J		80	12	ng/L	07/19/24 12:30	07/25/24 16:13	20	11
Perfluoroundecanoic acid (PFUnA)	ND		80	44	ng/L	07/19/24 12:30	07/25/24 16:13	20	12
Perfluorobutanesulfonic acid (PFBS)	4100		80	8.0	ng/L	07/19/24 12:30	07/25/24 16:13	20	13
Perfluoropentanesulfonic acid (PFPeS)	2800		80	12	ng/L	07/19/24 12:30	07/25/24 16:13	20	14
Perfluoroheptanesulfonic acid (PFHps)	620		80	7.6	ng/L	07/19/24 12:30	07/25/24 16:13	20	15
L-Perfluoroctanesulfonic acid	6800		80	22	ng/L	07/19/24 12:30	07/25/24 16:13	20	16
Br-Perfluoroctanesulfonic acid	8300		80	22	ng/L	07/19/24 12:30	07/25/24 16:13	20	17
Total PFOS	15000		80	22	ng/L	07/19/24 12:30	07/25/24 16:13	20	18
4:2 FTS	150		80	9.6	ng/L	07/19/24 12:30	07/25/24 16:13	20	19
6:2 FTS	13000		200	100	ng/L	07/19/24 12:30	07/25/24 16:13	20	20
8:2 FTS	45 J		80	18	ng/L	07/19/24 12:30	07/25/24 16:13	20	21
10:2 FTS	ND		80	27	ng/L	07/19/24 12:30	07/25/24 16:13	20	22
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	77		25 - 150				07/19/24 12:30	07/25/24 16:13	20
13C4 PFHpA	77		25 - 150				07/19/24 12:30	07/25/24 16:13	20
13C4 PFOA	96		25 - 150				07/19/24 12:30	07/25/24 16:13	20
13C5 PFNA	122		25 - 150				07/19/24 12:30	07/25/24 16:13	20
13C2 PFDA	129		25 - 150				07/19/24 12:30	07/25/24 16:13	20
13C2 PFUnA	95		25 - 150				07/19/24 12:30	07/25/24 16:13	20
13C3 PFBS	89		25 - 150				07/19/24 12:30	07/25/24 16:13	20
13C4 PFOS	103		25 - 150				07/19/24 12:30	07/25/24 16:13	20
M2-4:2 FTS	80		25 - 150				07/19/24 12:30	07/25/24 16:13	20
M2-6:2 FTS	168 *5+		25 - 150				07/19/24 12:30	07/25/24 16:13	20
M2-8:2 FTS	110		25 - 150				07/19/24 12:30	07/25/24 16:13	20
13C2 10:2 FTS	63		25 - 150				07/19/24 12:30	07/25/24 16:13	20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	23000		400	98	ng/L	07/19/24 12:30	07/24/24 17:53	100	1
Perfluorohexanoic acid (PFHxA)	27000		400	120	ng/L	07/19/24 12:30	07/24/24 17:53	100	2
Br-Perfluorohexanesulfonic acid	4900		400	110	ng/L	07/19/24 12:30	07/24/24 17:53	100	3
Total PFHxS	26000		400	110	ng/L	07/19/24 12:30	07/24/24 17:53	100	4
L-Perfluorohexanesulfonic acid	21000		400	110	ng/L	07/19/24 12:30	07/24/24 17:53	100	5
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFPeA	70		25 - 150				07/19/24 12:30	07/24/24 17:53	100
13C2 PFHxA	94		25 - 150				07/19/24 12:30	07/24/24 17:53	100
18O2 PFHxS	88		25 - 150				07/19/24 12:30	07/24/24 17:53	100

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Client Sample ID: Hol-South H2O

Date Collected: 07/15/24 09:00

Date Received: 07/18/24 09:20

## Lab Sample ID: 320-113899-3

Matrix: Water

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4200		200	96	ng/L	07/19/24 12:30	07/25/24 16:32	20	5
Perfluoroheptanoic acid (PFHpA)	2400		80	10	ng/L	07/19/24 12:30	07/25/24 16:32	20	6
L-Perfluorooctanoic acid	710		80	34	ng/L	07/19/24 12:30	07/25/24 16:32	20	7
Br-Perfluorooctanoic acid	110		80	34	ng/L	07/19/24 12:30	07/25/24 16:32	20	8
Total PFOA	830		80	34	ng/L	07/19/24 12:30	07/25/24 16:32	20	9
Perfluorononanoic acid (PFNA)	44 JI		80	11	ng/L	07/19/24 12:30	07/25/24 16:32	20	10
Perfluorodecanoic acid (PFDA)	ND		80	12	ng/L	07/19/24 12:30	07/25/24 16:32	20	11
Perfluoroundecanoic acid (PFUnA)	ND		80	44	ng/L	07/19/24 12:30	07/25/24 16:32	20	12
Perfluorobutanesulfonic acid (PFBS)	2800		80	8.0	ng/L	07/19/24 12:30	07/25/24 16:32	20	13
Perfluoropentanesulfonic acid (PFPeS)	1500		80	12	ng/L	07/19/24 12:30	07/25/24 16:32	20	14
Br-Perfluorohexanesulfonic acid	2000		80	23	ng/L	07/19/24 12:30	07/25/24 16:32	20	15
Total PFHxS	8400		80	23	ng/L	07/19/24 12:30	07/25/24 16:32	20	16
L-Perfluorohexanesulfonic acid	6400		80	23	ng/L	07/19/24 12:30	07/25/24 16:32	20	17
Perfluoroheptanesulfonic acid (PFHpS)	69 J		80	7.6	ng/L	07/19/24 12:30	07/25/24 16:32	20	18
L-Perfluorooctanesulfonic acid	620		80	22	ng/L	07/19/24 12:30	07/25/24 16:32	20	19
Br-Perfluorooctanesulfonic acid	610		80	22	ng/L	07/19/24 12:30	07/25/24 16:32	20	20
Total PFOS	1200		80	22	ng/L	07/19/24 12:30	07/25/24 16:32	20	21
4:2 FTS	120		80	9.6	ng/L	07/19/24 12:30	07/25/24 16:32	20	22
6:2 FTS	5900		200	100	ng/L	07/19/24 12:30	07/25/24 16:32	20	23
8:2 FTS	ND		80	18	ng/L	07/19/24 12:30	07/25/24 16:32	20	24
10:2 FTS	ND		80	27	ng/L	07/19/24 12:30	07/25/24 16:32	20	25

### Isotope Dilution

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	68		25 - 150	07/19/24 12:30	07/25/24 16:32	20
13C4 PFHpA	71		25 - 150	07/19/24 12:30	07/25/24 16:32	20
13C4 PFOA	98		25 - 150	07/19/24 12:30	07/25/24 16:32	20
13C5 PFNA	125		25 - 150	07/19/24 12:30	07/25/24 16:32	20
13C2 PFDA	137		25 - 150	07/19/24 12:30	07/25/24 16:32	20
13C2 PFUnA	84		25 - 150	07/19/24 12:30	07/25/24 16:32	20
13C3 PFBS	100		25 - 150	07/19/24 12:30	07/25/24 16:32	20
18O2 PFHxS	87		25 - 150	07/19/24 12:30	07/25/24 16:32	20
13C4 PFOS	113		25 - 150	07/19/24 12:30	07/25/24 16:32	20
M2-4:2 FTS	71		25 - 150	07/19/24 12:30	07/25/24 16:32	20
M2-6:2 FTS	110		25 - 150	07/19/24 12:30	07/25/24 16:32	20
M2-8:2 FTS	104		25 - 150	07/19/24 12:30	07/25/24 16:32	20
13C2 10:2 FTS	46		25 - 150	07/19/24 12:30	07/25/24 16:32	20

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	18000		400	98	ng/L	07/19/24 12:30	07/24/24 18:13	100	1
Perfluorohexanoic acid (PFHxA)	19000		400	120	ng/L	07/19/24 12:30	07/24/24 18:13	100	2
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
13C5 PFPeA	70		25 - 150	07/19/24 12:30	07/24/24 18:13	100			
13C2 PFHxA	97		25 - 150	07/19/24 12:30	07/24/24 18:13	100			

# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Client Sample ID: Hol-West H2O

Date Collected: 07/15/24 10:00

Date Received: 07/18/24 09:20

## Lab Sample ID: 320-113899-4

Matrix: Water

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4400		200	96	ng/L	07/19/24 12:30	07/25/24 16:52	20	5
Perfluoroheptanoic acid (PFHpA)	2400		80	10	ng/L	07/19/24 12:30	07/25/24 16:52	20	6
L-Perfluorooctanoic acid	850		80	34	ng/L	07/19/24 12:30	07/25/24 16:52	20	7
Br-Perfluorooctanoic acid	140		80	34	ng/L	07/19/24 12:30	07/25/24 16:52	20	8
Total PFOA	990		80	34	ng/L	07/19/24 12:30	07/25/24 16:52	20	9
Perfluorononanoic acid (PFNA)	57 J		80	11	ng/L	07/19/24 12:30	07/25/24 16:52	20	10
Perfluorodecanoic acid (PFDA)	ND		80	12	ng/L	07/19/24 12:30	07/25/24 16:52	20	11
Perfluoroundecanoic acid (PFUnA)	ND		80	44	ng/L	07/19/24 12:30	07/25/24 16:52	20	12
Perfluorobutanesulfonic acid (PFBS)	3000		80	8.0	ng/L	07/19/24 12:30	07/25/24 16:52	20	13
Perfluoropentanesulfonic acid (PFPeS)	1700		80	12	ng/L	07/19/24 12:30	07/25/24 16:52	20	14
Br-Perfluorohexanesulfonic acid	2100		80	23	ng/L	07/19/24 12:30	07/25/24 16:52	20	15
Total PFHxS	8600		80	23	ng/L	07/19/24 12:30	07/25/24 16:52	20	16
L-Perfluorohexanesulfonic acid	6600		80	23	ng/L	07/19/24 12:30	07/25/24 16:52	20	17
Perfluoroheptanesulfonic acid (PFHpS)	91		80	7.6	ng/L	07/19/24 12:30	07/25/24 16:52	20	18
L-Perfluorooctanesulfonic acid	1200		80	22	ng/L	07/19/24 12:30	07/25/24 16:52	20	19
Br-Perfluorooctanesulfonic acid	1100		80	22	ng/L	07/19/24 12:30	07/25/24 16:52	20	20
Total PFOS	2200		80	22	ng/L	07/19/24 12:30	07/25/24 16:52	20	21
4:2 FTS	130		80	9.6	ng/L	07/19/24 12:30	07/25/24 16:52	20	22
6:2 FTS	6000		200	100	ng/L	07/19/24 12:30	07/25/24 16:52	20	23
8:2 FTS	ND		80	18	ng/L	07/19/24 12:30	07/25/24 16:52	20	24
10:2 FTS	ND		80	27	ng/L	07/19/24 12:30	07/25/24 16:52	20	25
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	56		25 - 150				07/19/24 12:30	07/25/24 16:52	20
13C4 PFHpA	66		25 - 150				07/19/24 12:30	07/25/24 16:52	20
13C4 PFOA	94		25 - 150				07/19/24 12:30	07/25/24 16:52	20
13C5 PFNA	119		25 - 150				07/19/24 12:30	07/25/24 16:52	20
13C2 PFDA	130		25 - 150				07/19/24 12:30	07/25/24 16:52	20
13C2 PFUnA	81		25 - 150				07/19/24 12:30	07/25/24 16:52	20
13C3 PFBS	94		25 - 150				07/19/24 12:30	07/25/24 16:52	20
18O2 PFHxS	89		25 - 150				07/19/24 12:30	07/25/24 16:52	20
13C4 PFOS	112		25 - 150				07/19/24 12:30	07/25/24 16:52	20
M2-4:2 FTS	81		25 - 150				07/19/24 12:30	07/25/24 16:52	20
M2-6:2 FTS	109		25 - 150				07/19/24 12:30	07/25/24 16:52	20
M2-8:2 FTS	100		25 - 150				07/19/24 12:30	07/25/24 16:52	20
13C2 10:2 FTS	43		25 - 150				07/19/24 12:30	07/25/24 16:52	20

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	17000		400	98	ng/L	07/19/24 12:30	07/24/24 18:32	100	1
Perfluorohexanoic acid (PFHxA)	21000		400	120	ng/L	07/19/24 12:30	07/24/24 18:32	100	2
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFPeA	69		25 - 150				07/19/24 12:30	07/24/24 18:32	100
13C2 PFHxA	88		25 - 150				07/19/24 12:30	07/24/24 18:32	100

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

**Client Sample ID: Hol NE4-0=1 Soils**

**Lab Sample ID: 320-113899-5**

**Matrix: Solid**

Date Collected: 07/16/24 09:00

Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.3		0.20	0.046	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
Perfluoropentanoic acid (PFPeA)	8.8		0.20	0.041	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
Perfluorohexanoic acid (PFHxA)	14		0.20	0.031	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
Perfluoroheptanoic acid (PFHpA)	3.0		0.20	0.038	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
L-Perfluorooctanoic acid	7.0		0.20	0.053	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
Br-Perfluorooctanoic acid	0.63		0.20	0.053	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
Total PFOA	7.6		0.20	0.053	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
Perfluorononanoic acid (PFNA)	4.8		0.20	0.022	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
Perfluorodecanoic acid (PFDA)	1.1		0.20	0.048	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
Perfluoroundecanoic acid (PFUnA)	0.086 J		0.20	0.042	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
Perfluorobutanesulfonic acid (PFBS)	1.7		0.20	0.038	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
Perfluoropentanesulfonic acid (PFPeS)	2.0		0.20	0.037	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
Perfluoroheptanesulfonic acid (PFHpS)	5.0		0.20	0.049	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
4:2 FTS	ND		0.20	0.051	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
<b>8:2 FTS</b>	<b>2.1</b>		0.20	0.035	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
10:2 FTS	ND		0.20	0.038	ug/Kg	07/30/24 10:47	08/08/24 23:47		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	74		25 - 150				07/30/24 10:47	08/08/24 23:47	1
13C5 PFPeA	79		25 - 150				07/30/24 10:47	08/08/24 23:47	1
13C2 PFHxA	91		25 - 150				07/30/24 10:47	08/08/24 23:47	1
13C4 PFHpA	74		25 - 150				07/30/24 10:47	08/08/24 23:47	1
13C4 PFOA	82		25 - 150				07/30/24 10:47	08/08/24 23:47	1
13C5 PFNA	77		25 - 150				07/30/24 10:47	08/08/24 23:47	1
13C2 PFDA	79		25 - 150				07/30/24 10:47	08/08/24 23:47	1
13C2 PFUnA	76		25 - 150				07/30/24 10:47	08/08/24 23:47	1
13C3 PFBS	67		25 - 150				07/30/24 10:47	08/08/24 23:47	1
13C4 PFOS	55		25 - 150				07/30/24 10:47	08/08/24 23:47	1
M2-4:2 FTS	88		25 - 150				07/30/24 10:47	08/08/24 23:47	1
M2-8:2 FTS	66		25 - 150				07/30/24 10:47	08/08/24 23:47	1
13C2 10:2 FTS	77		25 - 150				07/30/24 10:47	08/08/24 23:47	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	3.8 J		10	1.5	ug/Kg	07/30/24 10:47	08/12/24 16:46		50
Total PFHxS	29		10	1.5	ug/Kg	07/30/24 10:47	08/12/24 16:46		50
L-Perfluorohexanesulfonic acid	25		10	1.5	ug/Kg	07/30/24 10:47	08/12/24 16:46		50
L-Perfluorooctanesulfonic acid	350		10	2.2	ug/Kg	07/30/24 10:47	08/12/24 16:46		50
Br-Perfluorooctanesulfonic acid	160		10	2.2	ug/Kg	07/30/24 10:47	08/12/24 16:46		50
Total PFOS	500		10	2.2	ug/Kg	07/30/24 10:47	08/12/24 16:46		50
<b>6:2 FTS</b>	<b>46</b>		10	1.4	ug/Kg	07/30/24 10:47	08/12/24 16:46		50
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	83		25 - 150				07/30/24 10:47	08/12/24 16:46	50
13C4 PFOS	73		25 - 150				07/30/24 10:47	08/12/24 16:46	50
M2-6:2 FTS	74		25 - 150				07/30/24 10:47	08/12/24 16:46	50

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

**Client Sample ID: Hol NE4-300=2 Soils**

**Lab Sample ID: 320-113899-6**

**Matrix: Solid**

Date Collected: 07/16/24 08:00

Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.1		0.19	0.044	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
Perfluoropentanoic acid (PFPeA)	0.84		0.19	0.039	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
Perfluorohexanoic acid (PFHxA)	2.6		0.19	0.030	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
Perfluoroheptanoic acid (PFHpA)	3.4		0.19	0.037	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
L-Perfluorooctanoic acid	1.0		0.19	0.051	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
Br-Perfluorooctanoic acid	0.18 J		0.19	0.051	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
<b>Total PFOA</b>	<b>1.2</b>		0.19	0.051	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
Perfluorononanoic acid (PFNA)	0.14 J		0.19	0.021	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
Perfluorodecanoic acid (PFDA)	ND		0.19	0.046	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
Perfluoroundecanoic acid (PFUnA)	ND		0.19	0.040	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.38</b>		0.19	0.037	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>0.36</b>		0.19	0.036	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
Br-Perfluorohexanesulfonic acid	2.1		0.19	0.028	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
<b>Total PFHxS</b>	<b>8.0</b>		0.19	0.028	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
L-Perfluorohexanesulfonic acid	5.9		0.19	0.028	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
Perfluoroheptanesulfonic acid (PFHpS)	0.086 J		0.19	0.047	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
L-Perfluoroctanesulfonic acid	1.7		0.19	0.041	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
Br-Perfluoroctanesulfonic acid	1.2		0.19	0.041	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
<b>Total PFOS</b>	<b>2.9</b>		0.19	0.041	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
4:2 FTS	ND		0.19	0.049	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
<b>6:2 FTS</b>	<b>0.17 J</b>		0.19	0.026	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
8:2 FTS	ND		0.19	0.034	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
10:2 FTS	ND		0.19	0.037	ug/Kg	07/30/24 10:47	08/09/24 00:07		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	85		25 - 150			07/30/24 10:47	08/09/24 00:07		1
13C5 PFPeA	83		25 - 150			07/30/24 10:47	08/09/24 00:07		1
13C2 PFHxA	81		25 - 150			07/30/24 10:47	08/09/24 00:07		1
13C4 PFHpA	85		25 - 150			07/30/24 10:47	08/09/24 00:07		1
13C4 PFOA	82		25 - 150			07/30/24 10:47	08/09/24 00:07		1
13C5 PFNA	80		25 - 150			07/30/24 10:47	08/09/24 00:07		1
13C2 PFDA	77		25 - 150			07/30/24 10:47	08/09/24 00:07		1
13C2 PFUnA	77		25 - 150			07/30/24 10:47	08/09/24 00:07		1
13C3 PFBS	80		25 - 150			07/30/24 10:47	08/09/24 00:07		1
18O2 PFHxS	84		25 - 150			07/30/24 10:47	08/09/24 00:07		1
13C4 PFOS	78		25 - 150			07/30/24 10:47	08/09/24 00:07		1
M2-4:2 FTS	91		25 - 150			07/30/24 10:47	08/09/24 00:07		1
M2-6:2 FTS	86		25 - 150			07/30/24 10:47	08/09/24 00:07		1
M2-8:2 FTS	76		25 - 150			07/30/24 10:47	08/09/24 00:07		1
13C2 10:2 FTS	75		25 - 150			07/30/24 10:47	08/09/24 00:07		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Client Sample ID: Hol NE4-600=3 Soils

Date Collected: 07/16/24 08:15

Date Received: 07/18/24 09:20

## Lab Sample ID: 320-113899-7

Matrix: Solid

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.2		0.20	0.045	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
Perfluoropentanoic acid (PFPeA)	0.20		0.20	0.040	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
Perfluorohexanoic acid (PFHxA)	0.41		0.20	0.030	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
Perfluoroheptanoic acid (PFHpA)	0.36		0.20	0.037	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
L-Perfluoroctanoic acid	0.20		0.20	0.052	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
Br-Perfluoroctanoic acid	ND		0.20	0.052	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
<b>Total PFOA</b>	<b>0.20</b>		0.20	0.052	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
Perfluorononanoic acid (PFNA)	0.058	J	0.20	0.022	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.047	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.041	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.079</b>	J	0.20	0.037	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.036	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>0.16</b>	J	0.20	0.028	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
<b>Total PFHxS</b>	<b>0.90</b>		0.20	0.028	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.74</b>		0.20	0.028	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.048	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>0.44</b>		0.20	0.042	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.30</b>		0.20	0.042	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
<b>Total PFOS</b>	<b>0.74</b>		0.20	0.042	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
4:2 FTS	ND		0.20	0.050	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
<b>6:2 FTS</b>	<b>0.14</b>	J	0.20	0.027	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
8:2 FTS	ND		0.20	0.034	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
10:2 FTS	ND		0.20	0.037	ug/Kg	07/30/24 10:47	08/09/24 00:26		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	78		25 - 150			07/30/24 10:47	08/09/24 00:26		1
13C5 PFPeA	79		25 - 150			07/30/24 10:47	08/09/24 00:26		1
13C2 PFHxA	88		25 - 150			07/30/24 10:47	08/09/24 00:26		1
13C4 PFHpA	80		25 - 150			07/30/24 10:47	08/09/24 00:26		1
13C4 PFOA	80		25 - 150			07/30/24 10:47	08/09/24 00:26		1
13C5 PFNA	77		25 - 150			07/30/24 10:47	08/09/24 00:26		1
13C2 PFDA	77		25 - 150			07/30/24 10:47	08/09/24 00:26		1
13C2 PFUnA	65		25 - 150			07/30/24 10:47	08/09/24 00:26		1
13C3 PFBS	76		25 - 150			07/30/24 10:47	08/09/24 00:26		1
18O2 PFHxS	82		25 - 150			07/30/24 10:47	08/09/24 00:26		1
13C4 PFOS	75		25 - 150			07/30/24 10:47	08/09/24 00:26		1
M2-4:2 FTS	78		25 - 150			07/30/24 10:47	08/09/24 00:26		1
M2-6:2 FTS	75		25 - 150			07/30/24 10:47	08/09/24 00:26		1
M2-8:2 FTS	68		25 - 150			07/30/24 10:47	08/09/24 00:26		1
13C2 10:2 FTS	60		25 - 150			07/30/24 10:47	08/09/24 00:26		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

**Client Sample ID: Hol NE4-900=4 Soils**

**Lab Sample ID: 320-113899-8**

**Matrix: Solid**

Date Collected: 07/16/24 08:30  
 Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.1		0.19	0.044	ug/Kg	07/30/24 10:47	08/09/24 00:45		1
Perfluoropentanoic acid (PFPeA)	0.71		0.19	0.039	ug/Kg	07/30/24 10:47	08/09/24 00:45		1
Perfluorohexanoic acid (PFHxA)	2.6		0.19	0.029	ug/Kg	07/30/24 10:47	08/09/24 00:45		1
Perfluoroheptanoic acid (PFHpA)	5.0		0.19	0.036	ug/Kg	07/30/24 10:47	08/09/24 00:45		1
Perfluorodecanoic acid (PFDA)	0.80		0.19	0.045	ug/Kg	07/30/24 10:47	08/09/24 00:45		1
Perfluoroundecanoic acid (PFUnA)	0.22		0.19	0.040	ug/Kg	07/30/24 10:47	08/09/24 00:45		1
Perfluorobutanesulfonic acid (PFBS)	1.1		0.19	0.036	ug/Kg	07/30/24 10:47	08/09/24 00:45		1
Perfluoropentanesulfonic acid (PFPeS)	1.3		0.19	0.035	ug/Kg	07/30/24 10:47	08/09/24 00:45		1
4:2 FTS	ND		0.19	0.048	ug/Kg	07/30/24 10:47	08/09/24 00:45		1
6:2 FTS	0.59		0.19	0.026	ug/Kg	07/30/24 10:47	08/09/24 00:45		1
8:2 FTS	0.38		0.19	0.033	ug/Kg	07/30/24 10:47	08/09/24 00:45		1
10:2 FTS	ND		0.19	0.036	ug/Kg	07/30/24 10:47	08/09/24 00:45		1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	83		25 - 150				07/30/24 10:47	08/09/24 00:45	
13C5 PFPeA	79		25 - 150				07/30/24 10:47	08/09/24 00:45	
13C2 PFHxA	84		25 - 150				07/30/24 10:47	08/09/24 00:45	
13C4 PFHpA	76		25 - 150				07/30/24 10:47	08/09/24 00:45	
13C2 PFDA	74		25 - 150				07/30/24 10:47	08/09/24 00:45	
13C2 PFUnA	75		25 - 150				07/30/24 10:47	08/09/24 00:45	
13C3 PFBS	76		25 - 150				07/30/24 10:47	08/09/24 00:45	
M2-4:2 FTS	105		25 - 150				07/30/24 10:47	08/09/24 00:45	
M2-6:2 FTS	80		25 - 150				07/30/24 10:47	08/09/24 00:45	
M2-8:2 FTS	80		25 - 150				07/30/24 10:47	08/09/24 00:45	
13C2 10:2 FTS	70		25 - 150				07/30/24 10:47	08/09/24 00:45	

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanoic acid	47		9.5	2.5	ug/Kg	07/30/24 10:47	08/12/24 17:05		50
Br-Perfluorooctanoic acid	4.9 J		9.5	2.5	ug/Kg	07/30/24 10:47	08/12/24 17:05		50
Total PFOA	52		9.5	2.5	ug/Kg	07/30/24 10:47	08/12/24 17:05		50
Perfluorononanoic acid (PFNA)	21		9.5	1.0	ug/Kg	07/30/24 10:47	08/12/24 17:05		50
Br-Perfluoroheptanesulfonic acid	18		9.5	1.4	ug/Kg	07/30/24 10:47	08/12/24 17:05		50
Total PFHxS	140		9.5	1.4	ug/Kg	07/30/24 10:47	08/12/24 17:05		50
L-Perfluoroheptanesulfonic acid	120		9.5	1.4	ug/Kg	07/30/24 10:47	08/12/24 17:05		50
Perfluoroheptanesulfonic acid (PFHpS)	13		9.5	2.3	ug/Kg	07/30/24 10:47	08/12/24 17:05		50
L-Perfluorooctanesulfonic acid	470		9.5	2.0	ug/Kg	07/30/24 10:47	08/12/24 17:05		50
Br-Perfluorooctanesulfonic acid	240		9.5	2.0	ug/Kg	07/30/24 10:47	08/12/24 17:05		50
Total PFOS	710		9.5	2.0	ug/Kg	07/30/24 10:47	08/12/24 17:05		50
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOA	70		25 - 150				07/30/24 10:47	08/12/24 17:05	
13C5 PFNA	73		25 - 150				07/30/24 10:47	08/12/24 17:05	
18O2 PFHxS	73		25 - 150				07/30/24 10:47	08/12/24 17:05	
13C4 PFOS	69		25 - 150				07/30/24 10:47	08/12/24 17:05	

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Client Sample ID: Hol NE2-0=1 Soils

Date Collected: 07/16/24 09:10

Date Received: 07/18/24 09:20

## Lab Sample ID: 320-113899-9

Matrix: Solid

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	8.0		0.19	0.044	ug/Kg	07/30/24 10:47	08/09/24 01:05		1
Perfluorononanoic acid (PFNA)	14		0.19	0.021	ug/Kg	07/30/24 10:47	08/09/24 01:05		1
Perfluorodecanoic acid (PFDA)	1.8		0.19	0.046	ug/Kg	07/30/24 10:47	08/09/24 01:05		1
Perfluoroundecanoic acid (PFUnA)	0.19		0.19	0.040	ug/Kg	07/30/24 10:47	08/09/24 01:05		1
Perfluorobutanesulfonic acid (PFBS)	9.7		0.19	0.036	ug/Kg	07/30/24 10:47	08/09/24 01:05		1
4:2 FTS	0.23		0.19	0.049	ug/Kg	07/30/24 10:47	08/09/24 01:05		1
8:2 FTS	3.5		0.19	0.033	ug/Kg	07/30/24 10:47	08/09/24 01:05		1
10:2 FTS	0.055 J		0.19	0.036	ug/Kg	07/30/24 10:47	08/09/24 01:05		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	66		25 - 150				07/30/24 10:47	08/09/24 01:05	1
13C4 PFHpA	78		25 - 150				07/30/24 10:47	08/09/24 01:05	1
13C5 PFNA	73		25 - 150				07/30/24 10:47	08/09/24 01:05	1
13C2 PFDA	82		25 - 150				07/30/24 10:47	08/09/24 01:05	1
13C2 PFUnA	81		25 - 150				07/30/24 10:47	08/09/24 01:05	1
13C3 PFBS	78		25 - 150				07/30/24 10:47	08/09/24 01:05	1
M2-4:2 FTS	106		25 - 150				07/30/24 10:47	08/09/24 01:05	1
M2-6:2 FTS	92		25 - 150				07/30/24 10:47	08/09/24 01:05	1
M2-8:2 FTS	83		25 - 150				07/30/24 10:47	08/09/24 01:05	1
13C2 10:2 FTS	123		25 - 150				07/30/24 10:47	08/09/24 01:05	1

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	39		19	3.9	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
Perfluorohexanoic acid (PFHxA)	91		19	3.0	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
Perfluoroheptanoic acid (PFHpA)	27		19	3.6	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
L-Perfluoroctanoic acid	27		19	5.1	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
Br-Perfluoroctanoic acid	5.1 J		19	5.1	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
Total PFOA	32		19	5.1	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
Perfluoropentanesulfonic acid (PFPeS)	14 J		19	3.5	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
Br-Perfluorohexanesulfonic acid	23		19	2.8	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
Total PFHxS	110		19	2.8	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
L-Perfluorohexanesulfonic acid	90		19	2.8	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
Perfluoroheptanesulfonic acid (PFHpS)	11 J		19	4.7	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
L-Perfluoroctanesulfonic acid	670		19	4.1	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
Br-Perfluoroctanesulfonic acid	350		19	4.1	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
Total PFOS	1000		19	4.1	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
6:2 FTS	120		19	2.6	ug/Kg	07/30/24 10:47	08/12/24 17:24		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFPeA	74		25 - 150				07/30/24 10:47	08/12/24 17:24	100
13C2 PFHxA	92		25 - 150				07/30/24 10:47	08/12/24 17:24	100
13C4 PFHpA	75		25 - 150				07/30/24 10:47	08/12/24 17:24	100
13C4 PFOA	65		25 - 150				07/30/24 10:47	08/12/24 17:24	100
13C5 PFNA	71		25 - 150				07/30/24 10:47	08/12/24 17:24	100
13C3 PFBS	76		25 - 150				07/30/24 10:47	08/12/24 17:24	100
18O2 PFHxS	82		25 - 150				07/30/24 10:47	08/12/24 17:24	100
13C4 PFOS	71		25 - 150				07/30/24 10:47	08/12/24 17:24	100

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

**Client Sample ID: Hol NE2-0=1 Soils**

**Lab Sample ID: 320-113899-9**

**Matrix: Solid**

Date Collected: 07/16/24 09:10

Date Received: 07/18/24 09:20

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL (Continued)**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-6:2 FTS	97		25 - 150	07/30/24 10:47	08/12/24 17:24	100

# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

**Client Sample ID: Hol NE2-300=2 Soils**

**Lab Sample ID: 320-113899-10**

**Matrix: Solid**

Date Collected: 07/16/24 09:20

Date Received: 07/18/24 09:20

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.66		0.20	0.045	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
Perfluoropentanoic acid (PFPeA)	0.18	J	0.20	0.040	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
Perfluorohexanoic acid (PFHxA)	1.2		0.20	0.030	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
Perfluoroheptanoic acid (PFHpA)	3.0		0.20	0.037	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
L-Perfluorooctanoic acid	1.0		0.20	0.052	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
Br-Perfluorooctanoic acid	0.30		0.20	0.052	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
<b>Total PFOA</b>	<b>1.3</b>		0.20	0.052	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
Perfluorononanoic acid (PFNA)	0.079	J	0.20	0.021	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.047	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.041	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.21</b>		0.20	0.037	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>0.21</b>		0.20	0.036	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
Br-Perfluorohexanesulfonic acid	1.7		0.20	0.028	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
<b>Total PFHxS</b>	<b>8.0</b>		0.20	0.028	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>6.4</b>		0.20	0.028	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.048	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>0.85</b>		0.20	0.042	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.51</b>		0.20	0.042	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
<b>Total PFOS</b>	<b>1.4</b>		0.20	0.042	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
4:2 FTS	ND		0.20	0.050	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
<b>6:2 FTS</b>	<b>0.073</b>	J	0.20	0.026	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
8:2 FTS	ND		0.20	0.034	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
10:2 FTS	ND		0.20	0.037	ug/Kg	07/30/24 10:47	08/09/24 01:24		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	91		25 - 150			07/30/24 10:47	08/09/24 01:24		1
13C5 PFPeA	84		25 - 150			07/30/24 10:47	08/09/24 01:24		1
13C2 PFHxA	92		25 - 150			07/30/24 10:47	08/09/24 01:24		1
13C4 PFHpA	85		25 - 150			07/30/24 10:47	08/09/24 01:24		1
13C4 PFOA	83		25 - 150			07/30/24 10:47	08/09/24 01:24		1
13C5 PFNA	79		25 - 150			07/30/24 10:47	08/09/24 01:24		1
13C2 PFDA	79		25 - 150			07/30/24 10:47	08/09/24 01:24		1
13C2 PFUnA	80		25 - 150			07/30/24 10:47	08/09/24 01:24		1
13C3 PFBS	77		25 - 150			07/30/24 10:47	08/09/24 01:24		1
18O2 PFHxS	84		25 - 150			07/30/24 10:47	08/09/24 01:24		1
13C4 PFOS	79		25 - 150			07/30/24 10:47	08/09/24 01:24		1
M2-4:2 FTS	88		25 - 150			07/30/24 10:47	08/09/24 01:24		1
M2-6:2 FTS	82		25 - 150			07/30/24 10:47	08/09/24 01:24		1
M2-8:2 FTS	74		25 - 150			07/30/24 10:47	08/09/24 01:24		1
13C2 10:2 FTS	73		25 - 150			07/30/24 10:47	08/09/24 01:24		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

**Client Sample ID: Hol NE2-600=3 Soils**

**Lab Sample ID: 320-113899-11**

**Matrix: Solid**

Date Collected: 07/16/24 09:30  
 Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.11	J	0.19	0.043	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
Perfluoropentanoic acid (PFPeA)	ND		0.19	0.038	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
Perfluorohexanoic acid (PFHxA)	0.16	J	0.19	0.029	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
Perfluoroheptanoic acid (PFHpA)	0.52		0.19	0.036	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
L-Perfluorooctanoic acid	1.7		0.19	0.050	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
Br-Perfluorooctanoic acid	0.20		0.19	0.050	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
<b>Total PFOA</b>	<b>1.9</b>		0.19	0.050	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
Perfluorononanoic acid (PFNA)	0.30		0.19	0.021	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
Perfluorodecanoic acid (PFDA)	ND		0.19	0.045	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
Perfluoroundecanoic acid (PFUnA)	ND		0.19	0.039	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
Perfluorobutanesulfonic acid (PFBS)	0.048	J	0.19	0.036	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.19	0.035	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
Br-Perfluorohexanesulfonic acid	0.37		0.19	0.027	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
<b>Total PFHxS</b>	<b>3.5</b>		0.19	0.027	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
L-Perfluorohexanesulfonic acid	3.1		0.19	0.027	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
Perfluoroheptanesulfonic acid (PFHpS)	0.098	J	0.19	0.046	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
L-Perfluoroctanesulfonic acid	3.3		0.19	0.040	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
Br-Perfluoroctanesulfonic acid	1.5		0.19	0.040	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
<b>Total PFOS</b>	<b>4.9</b>		0.19	0.040	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
4:2 FTS	ND		0.19	0.048	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
<b>6:2 FTS</b>	<b>0.085</b>	J	0.19	0.025	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
8:2 FTS	ND		0.19	0.033	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
10:2 FTS	ND		0.19	0.036	ug/Kg	07/30/24 10:47	08/09/24 01:44		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	79		25 - 150			07/30/24 10:47	08/09/24 01:44		1
13C5 PFPeA	80		25 - 150			07/30/24 10:47	08/09/24 01:44		1
13C2 PFHxA	89		25 - 150			07/30/24 10:47	08/09/24 01:44		1
13C4 PFHpA	85		25 - 150			07/30/24 10:47	08/09/24 01:44		1
13C4 PFOA	79		25 - 150			07/30/24 10:47	08/09/24 01:44		1
13C5 PFNA	76		25 - 150			07/30/24 10:47	08/09/24 01:44		1
13C2 PFDA	77		25 - 150			07/30/24 10:47	08/09/24 01:44		1
13C2 PFUnA	73		25 - 150			07/30/24 10:47	08/09/24 01:44		1
13C3 PFBS	65		25 - 150			07/30/24 10:47	08/09/24 01:44		1
18O2 PFHxS	72		25 - 150			07/30/24 10:47	08/09/24 01:44		1
13C4 PFOS	71		25 - 150			07/30/24 10:47	08/09/24 01:44		1
M2-4:2 FTS	75		25 - 150			07/30/24 10:47	08/09/24 01:44		1
M2-6:2 FTS	74		25 - 150			07/30/24 10:47	08/09/24 01:44		1
M2-8:2 FTS	68		25 - 150			07/30/24 10:47	08/09/24 01:44		1
13C2 10:2 FTS	72		25 - 150			07/30/24 10:47	08/09/24 01:44		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

**Client Sample ID: Hol NE2-900=4 Soils**

**Lab Sample ID: 320-113899-12**

**Matrix: Solid**

Date Collected: 07/16/24 09:45  
 Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.15	J	0.19	0.045	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
Perfluoropentanoic acid (PFPeA)	0.15	J	0.19	0.040	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
Perfluorohexanoic acid (PFHxA)	0.97		0.19	0.030	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
Perfluoroheptanoic acid (PFHpA)	0.79	F1	0.19	0.037	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
L-Perfluorooctanoic acid	0.29		0.19	0.052	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
Br-Perfluorooctanoic acid	0.11	J	0.19	0.052	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
<b>Total PFOA</b>	<b>0.40</b>		0.19	0.052	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
Perfluorononanoic acid (PFNA)	0.089	J I	0.19	0.021	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
Perfluorodecanoic acid (PFDA)	ND		0.19	0.047	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
Perfluoroundecanoic acid (PFUnA)	ND		0.19	0.041	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.28</b>		0.19	0.037	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>0.37</b>	F1	0.19	0.036	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
Br-Perfluorohexanesulfonic acid	0.86		0.19	0.028	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
<b>Total PFHxS</b>	<b>2.8</b>	F1	0.19	0.028	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>1.9</b>	F1	0.19	0.028	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.19	0.048	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>1.1</b>	F1	0.19	0.042	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.60</b>		0.19	0.042	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
<b>Total PFOS</b>	<b>1.7</b>	F1	0.19	0.042	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
4:2 FTS	ND		0.19	0.050	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
<b>6:2 FTS</b>	<b>0.070</b>	J	0.19	0.026	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
8:2 FTS	ND		0.19	0.034	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
10:2 FTS	ND		0.19	0.037	ug/Kg	07/30/24 10:47	08/09/24 02:22		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	96		25 - 150			07/30/24 10:47	08/09/24 02:22		1
13C5 PFPeA	90		25 - 150			07/30/24 10:47	08/09/24 02:22		1
13C2 PFHxA	91		25 - 150			07/30/24 10:47	08/09/24 02:22		1
13C4 PFHpA	88		25 - 150			07/30/24 10:47	08/09/24 02:22		1
13C4 PFOA	85		25 - 150			07/30/24 10:47	08/09/24 02:22		1
13C5 PFNA	83		25 - 150			07/30/24 10:47	08/09/24 02:22		1
13C2 PFDA	83		25 - 150			07/30/24 10:47	08/09/24 02:22		1
13C2 PFUnA	82		25 - 150			07/30/24 10:47	08/09/24 02:22		1
13C3 PFBS	84		25 - 150			07/30/24 10:47	08/09/24 02:22		1
18O2 PFHxS	80		25 - 150			07/30/24 10:47	08/09/24 02:22		1
13C4 PFOS	80		25 - 150			07/30/24 10:47	08/09/24 02:22		1
M2-4:2 FTS	99		25 - 150			07/30/24 10:47	08/09/24 02:22		1
M2-6:2 FTS	78		25 - 150			07/30/24 10:47	08/09/24 02:22		1
M2-8:2 FTS	78		25 - 150			07/30/24 10:47	08/09/24 02:22		1
13C2 10:2 FTS	76		25 - 150			07/30/24 10:47	08/09/24 02:22		1

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# Isotope Dilution Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PPPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-113899-5	Hol NE4-0=1 Soils	74	79	91	74	82	77	79	76
320-113899-5 - DL	Hol NE4-0=1 Soils								
320-113899-6	Hol NE4-300=2 Soils	85	83	81	85	82	80	77	77
320-113899-7	Hol NE4-600=3 Soils	78	79	88	80	80	77	77	65
320-113899-8	Hol NE4-900=4 Soils	83	79	84	76			74	75
320-113899-8 - DL	Hol NE4-900=4 Soils					70	73		
320-113899-9	Hol NE2-0=1 Soils	66			78		73	82	81
320-113899-9 - DL	Hol NE2-0=1 Soils		74	92	75	65	71		
320-113899-10	Hol NE2-300=2 Soils	91	84	92	85	83	79	79	80
320-113899-11	Hol NE2-600=3 Soils	79	80	89	85	79	76	77	73
320-113899-12	Hol NE2-900=4 Soils	96	90	91	88	85	83	83	82
320-113899-12 MS	Hol NE2-900=4 Soils	90	97	101	81	85	85	87	82
320-113899-12 MSD	Hol NE2-900=4 Soils	73	87	86	85	83	75	77	73
LCS 320-785917/2-A	Lab Control Sample	99	90	99	89	89	90	85	81
MB 320-785917/1-A	Method Blank	102	98	105	91	96	102	97	96
Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)	
320-113899-5	Hol NE4-0=1 Soils	67		55	88		66	77	
320-113899-5 - DL	Hol NE4-0=1 Soils		83	73		74			
320-113899-6	Hol NE4-300=2 Soils	80	84	78	91	86	76	75	
320-113899-7	Hol NE4-600=3 Soils	76	82	75	78	75	68	60	
320-113899-8	Hol NE4-900=4 Soils	76			105	80	80	70	
320-113899-8 - DL	Hol NE4-900=4 Soils		73	69					
320-113899-9	Hol NE2-0=1 Soils	78			106	92	83	123	
320-113899-9 - DL	Hol NE2-0=1 Soils	76	82	71		97			
320-113899-10	Hol NE2-300=2 Soils	77	84	79	88	82	74	73	
320-113899-11	Hol NE2-600=3 Soils	65	72	71	75	74	68	72	
320-113899-12	Hol NE2-900=4 Soils	84	80	80	99	78	78	76	
320-113899-12 MS	Hol NE2-900=4 Soils	70	79	81	94	74	76	84	
320-113899-12 MSD	Hol NE2-900=4 Soils	70	71	72	70	74	71	89	
LCS 320-785917/2-A	Lab Control Sample	73	80	77	90	91	79	69	
MB 320-785917/1-A	Method Blank	86	90	90	104	101	91	88	

### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 M102FTS = 13C2 10:2 FTS

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# Isotope Dilution Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-113899-1	Hol-North H2O	76	99	99	104	99	98	92	82
320-113899-2 - DL	Hol-East H2O		70	94					
320-113899-2	Hol-East H2O	77			77	96	122	129	95
320-113899-3 - DL	Hol-South H2O		70	97					
320-113899-3	Hol-South H2O	68			71	98	125	137	84
320-113899-4 - DL	Hol-West H2O		69	88					
320-113899-4	Hol-West H2O	56			66	94	119	130	81
LCS 320-781606/2-A	Lab Control Sample	95	79	90	90	99	110	102	106
LCSD 320-781606/3-A	Lab Control Sample Dup	100	84	95	96	98	107	103	109
MB 320-781606/1-A	Method Blank	101	88	98	87	99	106	115	120
Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)	
320-113899-1	Hol-North H2O	90	95	92	106	103	87	73	
320-113899-2 - DL	Hol-East H2O		88						
320-113899-2	Hol-East H2O	89		103	80	168 *5+	110	63	
320-113899-3 - DL	Hol-South H2O								
320-113899-3	Hol-South H2O	100	87	113	71	110	104	46	
320-113899-4 - DL	Hol-West H2O								
320-113899-4	Hol-West H2O	94	89	112	81	109	100	43	
LCS 320-781606/2-A	Lab Control Sample	88	94	109	79	101	98	93	
LCSD 320-781606/3-A	Lab Control Sample Dup	88	101	110	87	101	102	109	
MB 320-781606/1-A	Method Blank	96	98	113	76	101	106	113	

### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 M102FTS = 13C2 10:2 FTS

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

**Lab Sample ID: MB 320-781606/1-A**

**Matrix: Water**

**Analysis Batch: 782324**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 781606**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0	2.4	ng/L	07/19/24 12:30	07/22/24 14:15		1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L	07/19/24 12:30	07/22/24 14:15		1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L	07/19/24 12:30	07/22/24 14:15		1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L	07/19/24 12:30	07/22/24 14:15		1
L-Perfluoroctanoic acid	ND		2.0	0.85	ng/L	07/19/24 12:30	07/22/24 14:15		1
Br-Perfluoroctanoic acid	ND		2.0	0.85	ng/L	07/19/24 12:30	07/22/24 14:15		1
Total PFOA	ND		2.0	0.85	ng/L	07/19/24 12:30	07/22/24 14:15		1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L	07/19/24 12:30	07/22/24 14:15		1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L	07/19/24 12:30	07/22/24 14:15		1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L	07/19/24 12:30	07/22/24 14:15		1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L	07/19/24 12:30	07/22/24 14:15		1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.30	ng/L	07/19/24 12:30	07/22/24 14:15		1
Br-Perfluorohexanesulfonic acid	ND		2.0	0.57	ng/L	07/19/24 12:30	07/22/24 14:15		1
Total PFHxS	ND		2.0	0.57	ng/L	07/19/24 12:30	07/22/24 14:15		1
L-Perfluorohexanesulfonic acid	ND		2.0	0.57	ng/L	07/19/24 12:30	07/22/24 14:15		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0	0.19	ng/L	07/19/24 12:30	07/22/24 14:15		1
L-Perfluoroctanesulfonic acid	ND		2.0	0.54	ng/L	07/19/24 12:30	07/22/24 14:15		1
Br-Perfluoroctanesulfonic acid	ND		2.0	0.54	ng/L	07/19/24 12:30	07/22/24 14:15		1
Total PFOS	ND		2.0	0.54	ng/L	07/19/24 12:30	07/22/24 14:15		1
4:2 FTS	ND		2.0	0.24	ng/L	07/19/24 12:30	07/22/24 14:15		1
6:2 FTS	ND		5.0	2.5	ng/L	07/19/24 12:30	07/22/24 14:15		1
8:2 FTS	ND		2.0	0.46	ng/L	07/19/24 12:30	07/22/24 14:15		1
10:2 FTS	ND		2.0	0.67	ng/L	07/19/24 12:30	07/22/24 14:15		1

Isotope Dilution	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	101		25 - 150	07/19/24 12:30	07/22/24 14:15	1
13C5 PFPeA	88		25 - 150	07/19/24 12:30	07/22/24 14:15	1
13C2 PFHxA	98		25 - 150	07/19/24 12:30	07/22/24 14:15	1
13C4 PFHpA	87		25 - 150	07/19/24 12:30	07/22/24 14:15	1
13C4 PFOA	99		25 - 150	07/19/24 12:30	07/22/24 14:15	1
13C5 PFNA	106		25 - 150	07/19/24 12:30	07/22/24 14:15	1
13C2 PFDA	115		25 - 150	07/19/24 12:30	07/22/24 14:15	1
13C2 PFUnA	120		25 - 150	07/19/24 12:30	07/22/24 14:15	1
13C3 PFBS	96		25 - 150	07/19/24 12:30	07/22/24 14:15	1
18O2 PFHxS	98		25 - 150	07/19/24 12:30	07/22/24 14:15	1
13C4 PFOS	113		25 - 150	07/19/24 12:30	07/22/24 14:15	1
M2-4:2 FTS	76		25 - 150	07/19/24 12:30	07/22/24 14:15	1
M2-6:2 FTS	101		25 - 150	07/19/24 12:30	07/22/24 14:15	1
M2-8:2 FTS	106		25 - 150	07/19/24 12:30	07/22/24 14:15	1
13C2 10:2 FTS	113		25 - 150	07/19/24 12:30	07/22/24 14:15	1

**Lab Sample ID: LCS 320-781606/2-A**

**Matrix: Water**

**Analysis Batch: 782324**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 781606**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	40.0	37.5		ng/L	94	76 - 136	

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-781606/2-A**

**Matrix: Water**

**Analysis Batch: 782324**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 781606**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoropentanoic acid (PFPeA)	40.0	42.3		ng/L		106	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	44.2		ng/L		111	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	42.8		ng/L		107	72 - 132
L-Perfluoroctanoic acid	30.3	37.9		ng/L		125	70 - 130
Total PFOA	38.4	44.2		ng/L		115	70 - 130
Perfluorononanoic acid (PFNA)	26.1	32.0		ng/L		123	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	42.4		ng/L		106	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	44.0		ng/L		110	68 - 128
Perfluorobutanesulfonic acid (PFBS)	35.5	40.6		ng/L		114	67 - 127
Perfluoropentanesulfonic acid (PFPeS)	37.6	39.4		ng/L		105	66 - 126
Total PFHxS	36.5	38.0		ng/L		104	59 - 119
L-Perfluorohexanesulfonic acid	36.5	38.0		ng/L		104	59 - 119
Perfluoroheptanesulfonic acid (PFHpS)	38.2	39.8		ng/L		104	76 - 136
L-Perfluoroctanesulfonic acid	37.2	38.3		ng/L		103	70 - 130
Total PFOS	37.2	38.3		ng/L		103	70 - 130
4:2 FTS	37.5	45.8		ng/L		122	79 - 139
6:2 FTS	38.1	45.1		ng/L		118	59 - 175
8:2 FTS	38.4	42.3		ng/L		110	75 - 135
10:2 FTS	38.6	38.1		ng/L		99	64 - 142

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	95		25 - 150
13C5 PFPeA	79		25 - 150
13C2 PFHxA	90		25 - 150
13C4 PFHpA	90		25 - 150
13C4 PFOA	99		25 - 150
13C5 PFNA	110		25 - 150
13C2 PFDA	102		25 - 150
13C2 PFUnA	106		25 - 150
13C3 PFBS	88		25 - 150
18O2 PFHxS	94		25 - 150
13C4 PFOS	109		25 - 150
M2-4:2 FTS	79		25 - 150
M2-6:2 FTS	101		25 - 150
M2-8:2 FTS	98		25 - 150
13C2 10:2 FTS	93		25 - 150

**Lab Sample ID: LCSD 320-781606/3-A**

**Matrix: Water**

**Analysis Batch: 782324**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 781606**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	40.0	37.1		ng/L		93	76 - 136	1	30
Perfluoropentanoic acid (PFPeA)	40.0	39.4		ng/L		98	71 - 131	7	30
Perfluorohexanoic acid (PFHxA)	40.0	40.5		ng/L		101	73 - 133	9	30
Perfluoroheptanoic acid (PFHpA)	40.0	41.8		ng/L		105	72 - 132	2	30

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-781606/3-A**

**Matrix: Water**

**Analysis Batch: 782324**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 781606**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
L-Perfluoroctanoic acid	30.3	38.8		ng/L		128	70 - 130	2	30
Total PFOA	38.4	46.5		ng/L		121	70 - 130	5	30
Perfluorononanoic acid (PFNA)	26.1	32.5		ng/L		125	75 - 135	2	30
Perfluorodecanoic acid (PFDA)	40.0	42.3		ng/L		106	76 - 136	0	30
Perfluoroundecanoic acid (PFUnA)	40.0	44.9		ng/L		112	68 - 128	2	30
Perfluorobutanesulfonic acid (PFBS)	35.5	39.0		ng/L		110	67 - 127	4	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	43.0		ng/L		114	66 - 126	9	30
Total PFHxS	36.5	36.1		ng/L		99	59 - 119	5	30
L-Perfluorohexanesulfonic acid	36.5	36.1		ng/L		99	59 - 119	5	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	39.0		ng/L		102	76 - 136	2	30
L-Perfluoroctanesulfonic acid	37.2	37.7		ng/L		101	70 - 130	1	30
Total PFOS	37.2	37.7		ng/L		101	70 - 130	1	30
4:2 FTS	37.5	43.9		ng/L		117	79 - 139	4	30
6:2 FTS	38.1	45.6		ng/L		120	59 - 175	1	30
8:2 FTS	38.4	43.3		ng/L		113	75 - 135	2	30
10:2 FTS	38.6	37.7		ng/L		98	64 - 142	1	30

Isotope Dilution	LCSD	LCSD	Limits
	%Recovery	Qualifier	
13C4 PFBA	100		25 - 150
13C5 PFPeA	84		25 - 150
13C2 PFHxA	95		25 - 150
13C4 PFHpA	96		25 - 150
13C4 PFOA	98		25 - 150
13C5 PFNA	107		25 - 150
13C2 PFDA	103		25 - 150
13C2 PFUnA	109		25 - 150
13C3 PFBS	88		25 - 150
18O2 PFHxS	101		25 - 150
13C4 PFOS	110		25 - 150
M2-4:2 FTS	87		25 - 150
M2-6:2 FTS	101		25 - 150
M2-8:2 FTS	102		25 - 150
13C2 10:2 FTS	109		25 - 150

**Lab Sample ID: MB 320-785917/1-A**

**Matrix: Solid**

**Analysis Batch: 789265**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 785917**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.20	0.046	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.041	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.031	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.038	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
L-Perfluoroctanoic acid	ND		0.20	0.053	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Br-Perfluoroctanoic acid	ND		0.20	0.053	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Total PFOA	ND		0.20	0.053	ug/Kg		07/30/24 10:47	08/08/24 23:08	1

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID:** MB 320-785917/1-A

**Matrix:** Solid

**Analysis Batch:** 789265

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 785917

Analyte	Result	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifer								
Perfluorononanoic acid (PFNA)	ND			0.20	0.022	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Perfluorodecanoic acid (PFDA)	ND			0.20	0.048	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Perfluoroundecanoic acid (PFUnA)	ND			0.20	0.042	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Perfluorobutanesulfonic acid (PFBS)	ND			0.20	0.038	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Perfluoropentanesulfonic acid (PFPeS)	ND			0.20	0.037	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Br-Perfluorohexanesulfonic acid	ND			0.20	0.029	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Total PFHxS	ND			0.20	0.029	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
L-Perfluorohexanesulfonic acid	ND			0.20	0.029	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Perfluoroheptanesulfonic acid (PFHpS)	ND			0.20	0.049	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
L-Perfluoroctanesulfonic acid	ND			0.20	0.043	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Br-Perfluoroctanesulfonic acid	ND			0.20	0.043	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
Total PFOS	ND			0.20	0.043	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
4:2 FTS	ND			0.20	0.051	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
6:2 FTS	ND			0.20	0.027	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
8:2 FTS	ND			0.20	0.035	ug/Kg		07/30/24 10:47	08/08/24 23:08	1
10:2 FTS	ND			0.20	0.038	ug/Kg		07/30/24 10:47	08/08/24 23:08	1

Isotope Dilution	%Recovery	MB		Limits	Prepared	Analyzed	Dil Fac	
		Qualifer						
13C4 PFBA	102			25 - 150		07/30/24 10:47	08/08/24 23:08	1
13C5 PFPeA	98			25 - 150		07/30/24 10:47	08/08/24 23:08	1
13C2 PFHxA	105			25 - 150		07/30/24 10:47	08/08/24 23:08	1
13C4 PFHpA	91			25 - 150		07/30/24 10:47	08/08/24 23:08	1
13C4 PFOA	96			25 - 150		07/30/24 10:47	08/08/24 23:08	1
13C5 PFNA	102			25 - 150		07/30/24 10:47	08/08/24 23:08	1
13C2 PFDA	97			25 - 150		07/30/24 10:47	08/08/24 23:08	1
13C2 PFUnA	96			25 - 150		07/30/24 10:47	08/08/24 23:08	1
13C3 PFBS	86			25 - 150		07/30/24 10:47	08/08/24 23:08	1
18O2 PFHxS	90			25 - 150		07/30/24 10:47	08/08/24 23:08	1
13C4 PFOS	90			25 - 150		07/30/24 10:47	08/08/24 23:08	1
M2-4:2 FTS	104			25 - 150		07/30/24 10:47	08/08/24 23:08	1
M2-6:2 FTS	101			25 - 150		07/30/24 10:47	08/08/24 23:08	1
M2-8:2 FTS	91			25 - 150		07/30/24 10:47	08/08/24 23:08	1
13C2 10:2 FTS	88			25 - 150		07/30/24 10:47	08/08/24 23:08	1

**Lab Sample ID:** LCS 320-785917/2-A

**Matrix:** Solid

**Analysis Batch:** 789265

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 785917

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	
Perfluorobutanoic acid (PFBA)	2.00	1.89		ug/Kg		94	76 - 136	
Perfluoropentanoic acid (PFPeA)	2.00	1.76		ug/Kg		88	69 - 129	
Perfluorohexanoic acid (PFHxA)	2.00	1.85		ug/Kg		93	71 - 131	
Perfluoroheptanoic acid (PFHpA)	2.00	1.99		ug/Kg		100	71 - 131	
L-Perfluoroctanoic acid	2.00	1.79		ug/Kg		89	72 - 132	
Total PFOA	2.00	1.79		ug/Kg		89	72 - 132	
Perfluorononanoic acid (PFNA)	2.00	1.71		ug/Kg		85	73 - 133	
Perfluorodecanoic acid (PFDA)	2.00	1.81		ug/Kg		90	72 - 132	

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-785917/2-A**

**Matrix: Solid**

**Analysis Batch: 789265**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 785917**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoroundecanoic acid (PFUnA)	2.00	1.92		ug/Kg	96	66 - 126	
Perfluorobutanesulfonic acid (PFBS)	1.78	2.01		ug/Kg	113	69 - 129	
Perfluoropentanesulfonic acid (PFPeS)	1.88	1.92		ug/Kg	102	66 - 126	
Total PFHxS	1.82	1.73		ug/Kg	95	62 - 122	
L-Perfluorohexanesulfonic acid	1.82	1.73		ug/Kg	95	62 - 122	
Perfluoroheptanesulfonic acid (PFHpS)	1.91	2.01		ug/Kg	105	76 - 136	
L-Perfluoroctanesulfonic acid	1.86	1.74		ug/Kg	93	68 - 141	
Total PFOS	1.86	1.74		ug/Kg	93	68 - 141	
4:2 FTS	1.88	1.72		ug/Kg	92	68 - 143	
6:2 FTS	1.90	1.65		ug/Kg	87	73 - 139	
8:2 FTS	1.92	2.03		ug/Kg	106	75 - 135	
10:2 FTS	1.93	1.90		ug/Kg	98	69 - 145	

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	99		25 - 150
13C5 PFPeA	90		25 - 150
13C2 PFHxA	99		25 - 150
13C4 PFHpA	89		25 - 150
13C4 PFOA	89		25 - 150
13C5 PFNA	90		25 - 150
13C2 PFDA	85		25 - 150
13C2 PFUnA	81		25 - 150
13C3 PFBS	73		25 - 150
18O2 PFHxS	80		25 - 150
13C4 PFOS	77		25 - 150
M2-4:2 FTS	90		25 - 150
M2-6:2 FTS	91		25 - 150
M2-8:2 FTS	79		25 - 150
13C2 10:2 FTS	69		25 - 150

**Lab Sample ID: 320-113899-12 MS**

**Matrix: Solid**

**Analysis Batch: 789265**

**Client Sample ID: Hol NE2-900=4 Soils**

**Prep Type: Total/NA**

**Prep Batch: 785917**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	0.15	J	1.85	2.03		ug/Kg	102	76 - 136	
Perfluoropentanoic acid (PFPeA)	0.15	J	1.85	1.84		ug/Kg	92	69 - 129	
Perfluorohexanoic acid (PFHxA)	0.97		1.85	2.91		ug/Kg	105	71 - 131	
Perfluoroheptanoic acid (PFHpA)	0.79	F1	1.85	3.27	F1	ug/Kg	134	71 - 131	
L-Perfluoroctanoic acid	0.29		1.85	2.28		ug/Kg	108	72 - 132	
Total PFOA	0.40		1.85	2.28		ug/Kg	102	72 - 132	
Perfluorononanoic acid (PFNA)	0.089	J I	1.85	1.83		ug/Kg	94	73 - 133	
Perfluorodecanoic acid (PFDA)	ND		1.85	1.90		ug/Kg	103	72 - 132	
Perfluoroundecanoic acid (PFUnA)	ND		1.85	1.86		ug/Kg	101	66 - 126	

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: 320-113899-12 MS**

**Matrix: Solid**

**Analysis Batch: 789265**

**Client Sample ID: Hol NE2-900=4 Soils**

**Prep Type: Total/NA**

**Prep Batch: 785917**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanesulfonic acid (PFBS)	0.28		1.64	2.38		ug/Kg	128	69 - 129	
Perfluoropentanesulfonic acid (PFPeS)	0.37	F1	1.73	3.22	F1	ug/Kg	164	66 - 126	
Total PFHxS	2.8	F1	1.68	6.06	F1	ug/Kg	194	62 - 122	
L-Perfluorohexanesulfonic acid	1.9	F1	1.68	6.06	F1	ug/Kg	245	62 - 122	
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.76	1.93		ug/Kg	110	76 - 136	
L-Perfluoroctanesulfonic acid	1.1	F1	1.72	3.58	F1	ug/Kg	146	68 - 141	
Total PFOS	1.7	F1	1.72	3.58		ug/Kg	111	68 - 141	
4:2 FTS		ND	1.73	1.90		ug/Kg	110	68 - 143	
6:2 FTS	0.070	J	1.76	1.81		ug/Kg	99	73 - 139	
8:2 FTS		ND	1.77	1.94		ug/Kg	109	75 - 135	
10:2 FTS		ND	1.78	1.54		ug/Kg	87	69 - 145	
<b>Isotope Dilution</b>		<b>MS %Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>					
13C4 PFBA	90			25 - 150					
13C5 PFPeA	97			25 - 150					
13C2 PFHxA	101			25 - 150					
13C4 PFHpA	81			25 - 150					
13C4 PFOA	85			25 - 150					
13C5 PFNA	85			25 - 150					
13C2 PFDA	87			25 - 150					
13C2 PFUnA	82			25 - 150					
13C3 PFBS	70			25 - 150					
18O2 PFHxS	79			25 - 150					
13C4 PFOS	81			25 - 150					
M2-4:2 FTS	94			25 - 150					
M2-6:2 FTS	74			25 - 150					
M2-8:2 FTS	76			25 - 150					
13C2 10:2 FTS	84			25 - 150					

**Lab Sample ID: 320-113899-12 MSD**

**Matrix: Solid**

**Analysis Batch: 789265**

**Client Sample ID: Hol NE2-900=4 Soils**

**Prep Type: Total/NA**

**Prep Batch: 785917**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	0.15	J	1.96	2.08		ug/Kg	98	76 - 136		3	30
Perfluoropentanoic acid (PFPeA)	0.15	J	1.96	2.00		ug/Kg	94	69 - 129		8	30
Perfluorohexanoic acid (PFHxA)	0.97		1.96	3.00		ug/Kg	104	71 - 131		3	30
Perfluoroheptanoic acid (PFHpA)	0.79	F1	1.96	2.69		ug/Kg	97	71 - 131		19	30
L-Perfluoroctanoic acid	0.29		1.96	2.19		ug/Kg	97	72 - 132		4	30
Total PFOA	0.40		1.96	2.19		ug/Kg	92	72 - 132		4	30
Perfluorononanoic acid (PFNA)	0.089	J I	1.96	2.09		ug/Kg	102	73 - 133		13	30
Perfluorodecanoic acid (PFDA)	ND		1.96	2.07		ug/Kg	106	72 - 132		9	30
Perfluoroundecanoic acid (PFUnA)	ND		1.96	2.12		ug/Kg	108	66 - 126		13	30
Perfluorobutanesulfonic acid (PFBS)	0.28		1.74	2.20		ug/Kg	110	69 - 129		8	30

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: 320-113899-12 MSD**

**Matrix: Solid**

**Analysis Batch: 789265**

**Client Sample ID: Hol NE2-900=4 Soils**

**Prep Type: Total/NA**

**Prep Batch: 785917**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD
						ug/Kg	124	Limits	Limit
								66 - 126	19
Perfluoropentanesulfonic acid (PFPeS)	0.37	F1	1.84	2.66					30
Total PFHxS	2.8	F1	1.79	5.37	F1	ug/Kg	144	62 - 122	12
L-Perfluorohexanesulfonic acid	1.9	F1	1.79	5.37	F1	ug/Kg	192	62 - 122	12
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.87	2.20		ug/Kg	117	76 - 136	13
L-Perfluorooctanesulfonic acid	1.1	F1	1.82	4.76	F1	ug/Kg	202	68 - 141	28
Total PFOS	1.7	F1	1.82	4.76	F1	ug/Kg	169	68 - 141	28
4:2 FTS	ND		1.84	2.19		ug/Kg	119	68 - 143	14
6:2 FTS	0.070	J	1.87	1.79		ug/Kg	92	73 - 139	1
8:2 FTS	ND		1.88	2.14		ug/Kg	114	75 - 135	10
10:2 FTS	ND		1.89	1.96		ug/Kg	103	69 - 145	24
Isotope Dilution	MSD %Recovery	MSD Qualifier	MSD Limits						
13C4 PFBA	73		25 - 150						
13C5 PFPeA	87		25 - 150						
13C2 PFHxA	86		25 - 150						
13C4 PFHpA	85		25 - 150						
13C4 PFOA	83		25 - 150						
13C5 PFNA	75		25 - 150						
13C2 PFDA	77		25 - 150						
13C2 PFUnA	73		25 - 150						
13C3 PFBS	70		25 - 150						
18O2 PFHxS	71		25 - 150						
13C4 PFOS	72		25 - 150						
M2-4:2 FTS	70		25 - 150						
M2-6:2 FTS	74		25 - 150						
M2-8:2 FTS	71		25 - 150						
13C2 10:2 FTS	89		25 - 150						

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# QC Association Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## LCMS

### Prep Batch: 781606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113899-1	Hol-North H2O	Total/NA	Water	3535	
320-113899-2 - DL	Hol-East H2O	Total/NA	Water	3535	
320-113899-2	Hol-East H2O	Total/NA	Water	3535	
320-113899-3	Hol-South H2O	Total/NA	Water	3535	
320-113899-3 - DL	Hol-South H2O	Total/NA	Water	3535	
320-113899-4	Hol-West H2O	Total/NA	Water	3535	
320-113899-4 - DL	Hol-West H2O	Total/NA	Water	3535	
MB 320-781606/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-781606/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-781606/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

### Analysis Batch: 782324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-781606/1-A	Method Blank	Total/NA	Water	B/L/T PFAS	781606
LCS 320-781606/2-A	Lab Control Sample	Total/NA	Water	B/L/T PFAS	781606
LCSD 320-781606/3-A	Lab Control Sample Dup	Total/NA	Water	B/L/T PFAS	781606

### Analysis Batch: 783718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113899-2 - DL	Hol-East H2O	Total/NA	Water	B/L/T PFAS	781606
320-113899-3 - DL	Hol-South H2O	Total/NA	Water	B/L/T PFAS	781606
320-113899-4 - DL	Hol-West H2O	Total/NA	Water	B/L/T PFAS	781606

### Analysis Batch: 784588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113899-2	Hol-East H2O	Total/NA	Water	B/L/T PFAS	781606
320-113899-3	Hol-South H2O	Total/NA	Water	B/L/T PFAS	781606
320-113899-4	Hol-West H2O	Total/NA	Water	B/L/T PFAS	781606

### Prep Batch: 785917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113899-5 - DL	Hol NE4-0=1 Soils	Total/NA	Solid	SHAKE	
320-113899-5	Hol NE4-0=1 Soils	Total/NA	Solid	SHAKE	
320-113899-6	Hol NE4-300=2 Soils	Total/NA	Solid	SHAKE	
320-113899-7	Hol NE4-600=3 Soils	Total/NA	Solid	SHAKE	
320-113899-8	Hol NE4-900=4 Soils	Total/NA	Solid	SHAKE	
320-113899-8 - DL	Hol NE4-900=4 Soils	Total/NA	Solid	SHAKE	
320-113899-9	Hol NE2-0=1 Soils	Total/NA	Solid	SHAKE	
320-113899-9 - DL	Hol NE2-0=1 Soils	Total/NA	Solid	SHAKE	
320-113899-10	Hol NE2-300=2 Soils	Total/NA	Solid	SHAKE	
320-113899-11	Hol NE2-600=3 Soils	Total/NA	Solid	SHAKE	
320-113899-12	Hol NE2-900=4 Soils	Total/NA	Solid	SHAKE	
MB 320-785917/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-785917/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
320-113899-12 MS	Hol NE2-900=4 Soils	Total/NA	Solid	SHAKE	
320-113899-12 MSD	Hol NE2-900=4 Soils	Total/NA	Solid	SHAKE	

### Analysis Batch: 789265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113899-5	Hol NE4-0=1 Soils	Total/NA	Solid	B/L/T PFAS	785917
320-113899-6	Hol NE4-300=2 Soils	Total/NA	Solid	B/L/T PFAS	785917

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# QC Association Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## LCMS (Continued)

### Analysis Batch: 789265 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113899-7	Hol NE4-600=3 Soils	Total/NA	Solid	B/L/T PFAS	785917
320-113899-8	Hol NE4-900=4 Soils	Total/NA	Solid	B/L/T PFAS	785917
320-113899-9	Hol NE2-0=1 Soils	Total/NA	Solid	B/L/T PFAS	785917
320-113899-10	Hol NE2-300=2 Soils	Total/NA	Solid	B/L/T PFAS	785917
320-113899-11	Hol NE2-600=3 Soils	Total/NA	Solid	B/L/T PFAS	785917
320-113899-12	Hol NE2-900=4 Soils	Total/NA	Solid	B/L/T PFAS	785917
MB 320-785917/1-A	Method Blank	Total/NA	Solid	B/L/T PFAS	785917
LCS 320-785917/2-A	Lab Control Sample	Total/NA	Solid	B/L/T PFAS	785917
320-113899-12 MS	Hol NE2-900=4 Soils	Total/NA	Solid	B/L/T PFAS	785917
320-113899-12 MSD	Hol NE2-900=4 Soils	Total/NA	Solid	B/L/T PFAS	785917

### Analysis Batch: 789266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113899-1	Hol-North H2O	Total/NA	Water	B/L/T PFAS	781606

### Analysis Batch: 790534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113899-5 - DL	Hol NE4-0=1 Soils	Total/NA	Solid	B/L/T PFAS	785917
320-113899-8 - DL	Hol NE4-900=4 Soils	Total/NA	Solid	B/L/T PFAS	785917
320-113899-9 - DL	Hol NE2-0=1 Soils	Total/NA	Solid	B/L/T PFAS	785917

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Client Sample ID: Hol-North H2O

Date Collected: 07/15/24 08:00

Date Received: 07/18/24 09:20

## Lab Sample ID: 320-113899-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			297 mL	10.0 mL	781606	07/19/24 12:30	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 15:58	JTD	EET SAC

## Client Sample ID: Hol-East H2O

Date Collected: 07/15/24 08:30

Date Received: 07/18/24 09:20

## Lab Sample ID: 320-113899-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535	DL		125.0 mL	10.0 mL	781606	07/19/24 12:30	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	783718	07/24/24 17:53	S1C	EET SAC
Total/NA	Prep	3535			125.0 mL	10.0 mL	781606	07/19/24 12:30	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS		20	1 mL	1 mL	784588	07/25/24 16:13	S1C	EET SAC

## Client Sample ID: Hol-South H2O

Date Collected: 07/15/24 09:00

Date Received: 07/18/24 09:20

## Lab Sample ID: 320-113899-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535	DL		125.0 mL	10.0 mL	781606	07/19/24 12:30	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	783718	07/24/24 18:13	S1C	EET SAC
Total/NA	Prep	3535			125.0 mL	10.0 mL	781606	07/19/24 12:30	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS		20	1 mL	1 mL	784588	07/25/24 16:32	S1C	EET SAC

## Client Sample ID: Hol-West H2O

Date Collected: 07/15/24 10:00

Date Received: 07/18/24 09:20

## Lab Sample ID: 320-113899-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535	DL		125.0 mL	10.0 mL	781606	07/19/24 12:30	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	783718	07/24/24 18:32	S1C	EET SAC
Total/NA	Prep	3535			125.0 mL	10.0 mL	781606	07/19/24 12:30	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS		20	1 mL	1 mL	784588	07/25/24 16:52	S1C	EET SAC

## Client Sample ID: Hol NE4-0=1 Soils

Date Collected: 07/16/24 09:00

Date Received: 07/18/24 09:20

## Lab Sample ID: 320-113899-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.00 g	10.0 mL	785917	07/30/24 10:47	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789265	08/08/24 23:47	JTD	EET SAC
Total/NA	Prep	SHAKE	DL		5.00 g	10.0 mL	785917	07/30/24 10:47	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	790534	08/12/24 16:46	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## **Client Sample ID: Hol NE4-300=2 Soils**

Date Collected: 07/16/24 08:00

Date Received: 07/18/24 09:20

## **Lab Sample ID: 320-113899-6**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.19 g	10.0 mL	785917	07/30/24 10:47	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789265	08/09/24 00:07	JTD	EET SAC

## **Client Sample ID: Hol NE4-600=3 Soils**

Date Collected: 07/16/24 08:15

Date Received: 07/18/24 09:20

## **Lab Sample ID: 320-113899-7**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.09 g	10.0 mL	785917	07/30/24 10:47	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789265	08/09/24 00:26	JTD	EET SAC

## **Client Sample ID: Hol NE4-900=4 Soils**

Date Collected: 07/16/24 08:30

Date Received: 07/18/24 09:20

## **Lab Sample ID: 320-113899-8**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.28 g	10.0 mL	785917	07/30/24 10:47	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789265	08/09/24 00:45	JTD	EET SAC
Total/NA	Prep	SHAKE	DL		5.28 g	10.0 mL	785917	07/30/24 10:47	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	790534	08/12/24 17:05	S1C	EET SAC

## **Client Sample ID: Hol NE2-0=1 Soils**

Date Collected: 07/16/24 09:10

Date Received: 07/18/24 09:20

## **Lab Sample ID: 320-113899-9**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.23 g	10.0 mL	785917	07/30/24 10:47	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789265	08/09/24 01:05	JTD	EET SAC
Total/NA	Prep	SHAKE	DL		5.23 g	10.0 mL	785917	07/30/24 10:47	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	790534	08/12/24 17:24	S1C	EET SAC

## **Client Sample ID: Hol NE2-300=2 Soils**

Date Collected: 07/16/24 09:20

Date Received: 07/18/24 09:20

## **Lab Sample ID: 320-113899-10**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.12 g	10.0 mL	785917	07/30/24 10:47	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789265	08/09/24 01:24	JTD	EET SAC

## **Client Sample ID: Hol NE2-600=3 Soils**

Date Collected: 07/16/24 09:30

Date Received: 07/18/24 09:20

## **Lab Sample ID: 320-113899-11**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.33 g	10.0 mL	785917	07/30/24 10:47	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789265	08/09/24 01:44	JTD	EET SAC

Eurofins Sacramento

# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

**Client Sample ID: Hol NE2-900=4 Soils**

**Lab Sample ID: 320-113899-12**

**Matrix: Solid**

Date Collected: 07/16/24 09:45

Date Received: 07/18/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.13 g	10.0 mL	785917	07/30/24 10:47 AM	EET SAC	
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789265	08/09/24 02:22 JTD	EET SAC	

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: University of New Mexico

Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

## Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468	01-20-27
Arizona	State	AZ0708	08-11-25
Arkansas DEQ	State	88-0691	05-18-25
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-24
Florida	NELAP	E87570	06-30-25
Georgia	State	4040	01-29-25
Hawaii	State	Eurofins Sacramento	01-29-25
Illinois	NELAP	200060	03-31-25
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-25
Louisiana (All)	NELAP	01944	06-30-25
Maine	State	CA00004	04-14-26
Michigan	State	9947	01-29-25
Nevada	State	CA00044	10-31-24
New Hampshire	NELAP	2997	04-19-25
New Jersey	NELAP	CA005	06-30-25
New York	NELAP	11666	04-01-25
Ohio	State	41252	01-29-25
Oregon	NELAP	4040	01-29-25
Texas	NELAP	T104704399-23-17	05-31-25
US Fish & Wildlife	US Federal Programs	A22139	04-30-25
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-25
Virginia	NELAP	460278	03-14-25
Washington	State	C581	05-05-25
West Virginia (DW)	State	9930C	01-31-25
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Sacramento

## Method Summary

Client: University of New Mexico  
Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

Method	Method Description	Protocol	Laboratory
B/L/T PFAS	Branched, Linear and Total PFAS	EPA	EET SAC
3535	Solid-Phase Extraction (SPE)	SW846	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

### Protocol References:

EPA = US Environmental Protection Agency

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

### Laboratory References:

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

# Sample Summary

Client: University of New Mexico  
Project/Site: Holloman Lake\_Waters & Soils

Job ID: 320-113899-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-113899-1	Hol-North H2O	Water	07/15/24 08:00	07/18/24 09:20
320-113899-2	Hol-East H2O	Water	07/15/24 08:30	07/18/24 09:20
320-113899-3	Hol-South H2O	Water	07/15/24 09:00	07/18/24 09:20
320-113899-4	Hol-West H2O	Water	07/15/24 10:00	07/18/24 09:20
320-113899-5	Hol NE4-0=1 Soils	Solid	07/16/24 09:00	07/18/24 09:20
320-113899-6	Hol NE4-300=2 Soils	Solid	07/16/24 08:00	07/18/24 09:20
320-113899-7	Hol NE4-600=3 Soils	Solid	07/16/24 08:15	07/18/24 09:20
320-113899-8	Hol NE4-900=4 Soils	Solid	07/16/24 08:30	07/18/24 09:20
320-113899-9	Hol NE2-0=1 Soils	Solid	07/16/24 09:10	07/18/24 09:20
320-113899-10	Hol NE2-300=2 Soils	Solid	07/16/24 09:20	07/18/24 09:20
320-113899-11	Hol NE2-600=3 Soils	Solid	07/16/24 09:30	07/18/24 09:20
320-113899-12	Hol NE2-900=4 Soils	Solid	07/16/24 09:45	07/18/24 09:20

## Chain of Custody Record



Environment Testing  
America



## Environment Testing

Loc. 320

113899

Sacramento Sample  
Receiving Notes (SSRN)

Tracking # 7774 5250 9628

Job \_\_\_\_\_

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
GSL / OnTrac / Goldstreak / USPS / Other \_\_\_\_\_

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations  
File in the job folder with the COC

<p>Therm. ID: <u>L06</u> Corr Factor (+/-) <u>NA</u> °C            Ice <input checked="" type="checkbox"/> Wet <input checked="" type="checkbox"/> Gel <input type="checkbox"/> Other <input type="checkbox"/>            Cooler Custody Seal: <u>2477839</u>            Cooler ID _____            Temp Observed: <u>2.3</u> °C Corrected: <u>2.3</u> °C            From Temp Blank <input checked="" type="checkbox"/> Sample <input type="checkbox"/></p> <p><b>Opening/Processing The Shipment</b></p> <table> <thead> <tr> <th></th> <th><u>Yes</u></th> <th><u>No</u></th> <th><u>NA</u></th> </tr> </thead> <tbody> <tr> <td>Cooler compromised/tampered with?</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Cooler Temperature is acceptable?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Frozen samples show signs of thaw?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table> <p>Initials <u>DM</u> Date <u>07/18/24</u></p> <p><b>Unpacking/Labeling The Samples</b></p> <table> <thead> <tr> <th></th> <th><u>Yes</u></th> <th><u>No</u></th> <th><u>NA</u></th> </tr> </thead> <tbody> <tr> <td>Containers are not broken or leaking?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Samples compromised/tampered with?</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>COC is complete w/o discrepancies</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Sample custody seal?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Sample containers have legible labels?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Sample date/times are provided?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Appropriate containers are used?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Sample bottles are completely filled?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Sample preservatives verified?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Is the Field Sampler's name on COC?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Samples w/o discrepancies?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Zero headspace?*</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Alkalinity has no headspace?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Perchlorate has headspace? 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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Jean-Luc Cartron  
University of New Mexico  
Museum of Southwestern Biology  
Division of Mammals  
CERIA Bldg 83, Room 204  
Albuquerque, New Mexico 87131

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## JOB DESCRIPTION

Holloman bird/mammal

## JOB NUMBER

320-113896-1

# Eurofins Sacramento

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northern California, LLC Project Manager.

## Authorization



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Authorized for release by  
Linda C. Laver, Senior Project Manager  
[Linda.Laver@et.eurofinsus.com](mailto:Linda.Laver@et.eurofinsus.com)  
(916)374-4362

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# Definitions/Glossary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Qualifiers

LCMS	
Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
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.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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

# Case Narrative

Client: University of New Mexico  
Project: Holloman bird/mammal

Job ID: 320-113896-1

**Job ID: 320-113896-1**

**Eurofins Sacramento**

## Job Narrative 320-113896-1

### Receipt

The samples were received on 7/18/2024 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -36.9° C.

### Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and was not signed at the time samples were relinquished to the lab and does not list the requested analyses. Based on communications with the client, the samples were logged in for PFAS by 537 Mod.

The container label for each sample did not include a collection date or time. Samples were logged in and according to COC. Sample VDS 0 TEST (320-113896-23) was an empty vial intended to be tested as a blank. The COC does not list a collection date or time and this sample was logged in as 7/17/2024 @ 00:00. The COC does not list a collection time for sample NK284444 V24-20096 liner (320-113896-24) and was logged in as 00:00.

### LCMS

Method B/L/T PFAS: Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for multiple samples due to matrix interferences common to tissue matrices. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method B/L/T PFAS: The "I" qualifier means the transition mass ratio for the indicated analyte was outside the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgment was used to positively identify the analyte. NK311145 femur (320-113896-6), ArtNE2 01 (320-113896-15) and NK284447 (320-113896-30)

Method B/L/T PFAS: The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range in the diluted analysis. These analytes have been qualified (E); however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, further dilution and re-analysis will not produce significantly different results from those reported above the calibration range. NK311145 liver (320-113896-5), NK311146 liver (320-113896-7), NK284439 (320-113896-35) and NK284442 V24-20096 liver (320-113896-37)

Method B/L/T PFAS: Results for multiple samples were reported from the analysis of a diluted extract due to high concentration of the target analyte and/or matrix interference in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method B/L/T PFAS: Results for the following samples were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were outside acceptance limits. The internal standard is not used to quantitate target analyte concentrations, therefore the data have been reported. NK311133 liver (320-113896-11), NK284442 (320-113896-25) and NK284444 (320-113896-27)

Method B/L/T PFAS: Internal standard (ISTD) response for the following sample was outside control limits in the undiluted extract. The sample was re-analyzed at a dilution and the ISTD was within control limits. The ISTD is not used to quantitate target analytes; therefore, the data has been reported. NK284442 V24-20096 liver (320-113896-37)

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

### Organic Prep

Method SHAKE: A matrix spike/matrix spike duplicate (MS/MSD) was not prepared for preparation batches 320-785621 and 320-320-788729.

Method SHAKE: Elevated reporting limits are provided for the following samples due to insufficient sample available for extraction: NK311142 liver (320-113896-3), NK311143 liver (320-113896-4), NK311145 femur (320-113896-6), NK311146 femur (320-113896-8), NK311129 liver (320-113896-9), NK311131 liver (320-113896-10), NK311133 liver (320-113896-11), Velvet ant NE2 03 (320-113896-14), ArtNE2 01 (320-113896-15), ArtNE2 02 (320-113896-16), ArtNE2 04 (320-113896-18), ArtNE4 01 (320-113896-19), ArtNE4 02 (320-113896-20), ArtNE4 03 (320-113896-21), ArtNE4 04 (320-113896-22), NK284449 (320-113896-32), NK284450 (320-113896-33) and NK284444 V24-20103 liver (320-113896-39).

Method SHAKE: The following samples were discolored following extraction: NK311140 liver (320-113896-1), NK311141 liver (320-113896-2), NK311145 liver (320-113896-5), NK311146 liver (320-113896-7), NK311131 liver (320-113896-10), NK311133 liver (320-113896-11), NK319511 muscle (320-113896-12), NK319092 liver (320-113896-13), ArtNE2 03 (320-113896-17) and NK284439 (320-113896-35).

Eurofins Sacramento

## Case Narrative

Client: University of New Mexico  
Project: Holloman bird/mammal

Job ID: 320-113896-1

**Job ID: 320-113896-1 (Continued)**

**Eurofins Sacramento**

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

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# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Client Sample ID: NK311140 liver

## Lab Sample ID: 320-113896-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.8		0.99	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	6.5		0.99	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	5.4		0.99	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.1		0.99	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.35	J	0.99	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	2.7		0.99	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	2.4		0.99	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	8.2		0.99	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	1.0		0.99	0.099	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.14	J	0.99	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	1000		50	4.0	ug/Kg	20		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	820		50	4.0	ug/Kg	20		B/L/T PFAS	Total/NA
Total PFOS - DL	1800		50	4.0	ug/Kg	20		B/L/T PFAS	Total/NA

## Client Sample ID: NK311141 liver

## Lab Sample ID: 320-113896-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	17		0.75	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	26		0.75	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	18		0.75	0.077	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	8.0		0.75	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.20	J	0.75	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	4.0		0.75	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	3.8		0.75	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	6.8		0.75	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.64	J	0.75	0.075	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.083	J	0.75	0.075	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	1100		93	7.6	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	840		93	7.6	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	1900		93	7.6	ug/Kg	50		B/L/T PFAS	Total/NA

## Client Sample ID: NK311142 liver

## Lab Sample ID: 320-113896-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	3.8	J	14	2.9	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	3.8	J	14	2.9	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	24		14	2.5	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	3.3	J	14	1.5	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	34		14	2.1	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	34		14	2.1	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	6.7	J	14	2.6	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	1800		180	15	ug/Kg	5		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	340		180	15	ug/Kg	5		B/L/T PFAS	Total/NA
Total PFOS - DL	2200		180	15	ug/Kg	5		B/L/T PFAS	Total/NA

## Client Sample ID: NK311143 liver

## Lab Sample ID: 320-113896-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.4	J	7.1	1.7	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	6.9	J	7.1	1.3	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Client Sample ID: NK311143 liver (Continued)

## Lab Sample ID: 320-113896-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	2.1	J	7.1	0.74	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	1.1	J	7.1	1.1	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	1.1	J	7.1	1.1	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	350		18	1.5	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	290		18	1.5	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	640		18	1.5	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK311145 liver

## Lab Sample ID: 320-113896-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	15		0.69	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PPPeA)	0.34	J	0.69	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.10	J	0.69	0.080	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	1.2		0.69	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.2		0.69	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	56		0.69	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	31		0.69	0.071	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.6		0.69	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.52	J	0.69	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	8.9		0.69	0.069	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.20	J	0.69	0.070	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS - DL	130		69	10	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	130		69	10	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	320		69	13	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	31000	E	170	14	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	16000	E	170	14	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	47000		170	14	ug/Kg	100		B/L/T PFAS	Total/NA

## Client Sample ID: NK311145 femur

## Lab Sample ID: 320-113896-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	4.4	J	5.3	0.92	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.7	J	5.3	0.54	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	45		5.3	0.78	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	45		5.3	0.78	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	40		5.3	0.97	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	1600	I	130	11	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	570		130	11	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	2200		130	11	ug/Kg	10		B/L/T PFAS	Total/NA

## Client Sample ID: NK311146 liver

## Lab Sample ID: 320-113896-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	13		0.65	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PPPeA)	0.52	J	0.65	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.51	J	0.65	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.20	J	0.65	0.075	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	8.1		0.65	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	0.30	J	0.65	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	8.4		0.65	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	28		0.65	0.066	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Client Sample ID: NK311146 liver (Continued)

## Lab Sample ID: 320-113896-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroundecanoic acid (PFUnA)	5.3		0.65	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPPeS)	0.34 J		0.65	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	3.0		0.65	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	32		0.65	0.065	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.35 J		0.65	0.065	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	72		65	11	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	110		65	9.5	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	110		65	9.5	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	110		65	12	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	19000 E		160	13	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	4500		160	13	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	24000		160	13	ug/Kg	100		B/L/T PFAS	Total/NA

## Client Sample ID: NK311146 femur

## Lab Sample ID: 320-113896-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	1.1 J		3.4	0.70	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.1 J		3.4	0.70	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	5.3		3.4	0.60	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.8 J		3.4	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.66 J		3.4	0.51	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	23		3.4	0.51	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	22		3.4	0.51	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	12		3.4	0.64	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	1.5 J		3.4	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	1500		86	7.0	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	300		86	7.0	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	1800		86	7.0	ug/Kg	10		B/L/T PFAS	Total/NA

## Client Sample ID: NK311129 liver

## Lab Sample ID: 320-113896-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.0 J		2.5	0.59	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.56 J		2.5	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	9.1		2.5	0.51	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	1.0 J		2.5	0.51	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	10		2.5	0.51	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	11		2.5	0.44	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.7 J		2.5	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPPeS)	1.9 J		2.5	0.45	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	8.3		2.5	0.37	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	110		2.5	0.37	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	100		2.5	0.37	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	9.3		2.5	0.46	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	720		63	5.1	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	460		63	5.1	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	1200		63	5.1	ug/Kg	10		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Client Sample ID: NK311131 liver

## Lab Sample ID: 320-113896-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.4	J	3.3	0.79	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0	J	3.3	0.39	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	120		3.3	0.67	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	13		3.3	0.67	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	140		3.3	0.67	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	160		3.3	0.58	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	16		3.3	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	6.0		3.3	0.60	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	15		3.3	1.4	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	14		3.3	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	110	J	330	49	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	2000		330	49	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	1900		330	49	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	170	J	330	62	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	12000		830	68	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	5600		830	68	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	17000		830	68	ug/Kg	100		B/L/T PFAS	Total/NA

## Client Sample ID: NK311133 liver

## Lab Sample ID: 320-113896-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.7	J	2.7	0.64	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.60	J	2.7	0.31	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	23		2.7	0.55	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	2.6	J	2.7	0.55	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	26		2.7	0.55	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	26		2.7	0.47	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	2.8		2.7	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.8	J	2.7	0.49	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	15		2.7	0.40	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	150		2.7	0.40	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	130		2.7	0.40	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	22		2.7	0.50	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.60	J	2.7	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	1700		140	11	ug/Kg	20		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	720		140	11	ug/Kg	20		B/L/T PFAS	Total/NA
Total PFOS - DL	2400		140	11	ug/Kg	20		B/L/T PFAS	Total/NA

## Client Sample ID: NK319511 muscle

## Lab Sample ID: 320-113896-12

No Detections.

## Client Sample ID: NK319092 liver

## Lab Sample ID: 320-113896-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	0.47	J	0.66	0.068	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.20	J	0.66	0.18	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## **Client Sample ID: Velvet ant NE2 03**

## **Lab Sample ID: 320-113896-14**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	1.1	J	3.7	0.75	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.1	J	3.7	0.75	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	2.5	J	3.7	0.55	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	2.5	J	3.7	0.55	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	4.8	J	9.3	0.75	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	2.0	J	9.3	0.75	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	6.9	J	9.3	0.75	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: ArtNE2 01**

## **Lab Sample ID: 320-113896-15**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.91	J	1.2	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PPeA)	5.0		1.2	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFhxA)	14		1.2	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFhPA)	5.2		1.2	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	13		1.2	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	1.1	J	1.2	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	14		1.2	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	10	I	1.2	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.69	J	1.2	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.5		1.2	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPeS)	2.2		1.2	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	8.9		1.2	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	63		1.2	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	54		1.2	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFhPS)	9.2		1.2	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	49		1.2	0.52	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	1.3		1.2	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	390		30	2.5	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	240		30	2.5	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	630		30	2.5	ug/Kg	10		B/L/T PFAS	Total/NA

## **Client Sample ID: ArtNE2 02**

## **Lab Sample ID: 320-113896-16**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Br-Perfluorohexanesulfonic acid	8.7	J	20	3.0	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	17	J	20	3.0	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	8.7	J	20	3.0	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	75		50	4.1	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	22	J	50	4.1	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	98		50	4.1	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: ArtNE2 03**

## **Lab Sample ID: 320-113896-17**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFhPA)	0.52	J	0.81	0.094	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	1.7		0.81	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.16	J	0.81	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.8		0.81	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.72	J	0.81	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.13	J	0.81	0.083	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Client Sample ID: ArtNE2 03 (Continued)

## Lab Sample ID: 320-113896-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Br-Perfluorohexanesulfonic acid	0.37	J	0.81	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	3.1		0.81	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	2.7		0.81	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.25	J	0.81	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	18		2.0	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	7.4		2.0	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	25		2.0	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	1.3		0.81	0.34	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: ArtNE2 04

## Lab Sample ID: 320-113896-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	7.4		6.7	1.3	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	1.4	J	6.7	1.3	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	8.8		6.7	1.3	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	3.0	J	6.7	1.2	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	8.2		6.7	0.99	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	8.2		6.7	0.99	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	2.5	J	6.7	1.2	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	110		17	1.4	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	45		17	1.4	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	150		17	1.4	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: ArtNE4 01

## Lab Sample ID: 320-113896-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.1	J	1.2	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	2.9		1.2	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.8		1.2	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	6.7		1.2	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.58	J	1.2	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	7.3		1.2	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	5.3		1.2	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.64	J	1.2	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.20	J	1.2	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.67	J	1.2	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	4.3		1.2	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	33		1.2	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	29		1.2	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	6.4		1.2	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	42		1.2	0.50	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	1.8		1.2	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	320		29	2.4	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	180		29	2.4	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	500		29	2.4	ug/Kg	10		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Client Sample ID: ArtNE4 02

## Lab Sample ID: 320-113896-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.84	J	2.3	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	2.3		2.3	0.47	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	2.3		2.3	0.47	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	1.3	J	2.3	0.41	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.99	J	2.3	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	7.7		2.3	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	6.7		2.3	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.81	J	2.3	0.43	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	54		5.8	0.47	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	29		5.8	0.47	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	83		5.8	0.47	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	1.5	J	2.3	0.99	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: ArtNE4 03

## Lab Sample ID: 320-113896-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total PFHxS	0.74	J	4.0	0.59	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.74	J	4.0	0.59	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	6.1	J	10	0.81	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	2.7	J	10	0.81	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	8.9	J	10	0.81	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: ArtNE4 04

## Lab Sample ID: 320-113896-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.0	J	3.4	0.81	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	1.6	J	3.4	0.94	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.71	J	3.4	0.40	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	10		3.4	0.70	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.91	J	3.4	0.70	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	11		3.4	0.70	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	6.6		3.4	0.60	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.39	J	3.4	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	2.0	J	3.4	0.51	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	21		3.4	0.51	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	19		3.4	0.51	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	3.5		3.4	0.64	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	160		8.6	0.70	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	75		8.6	0.70	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	240		8.6	0.70	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: VDS 0 TEST

## Lab Sample ID: 320-113896-23

No Detections.

## Client Sample ID: NK284441

## Lab Sample ID: 320-113896-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	2.0		1.1	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	2.0		1.1	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	8.8		1.1	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	3.0		1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Client Sample ID: NK284441 (Continued)

## Lab Sample ID: 320-113896-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroundecanoic acid (PFUnA)	1.4		1.1	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	1.5		1.1	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	58		1.1	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	56		1.1	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	22		1.1	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	16		1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	3.0	B	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	1600		130	11	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	370		130	11	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	2000		130	11	ug/Kg	50		B/L/T PFAS	Total/NA

## Client Sample ID: NK284442

## Lab Sample ID: 320-113896-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.14	J	0.85	0.098	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	3.0		0.85	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	3.0		0.85	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	11		0.85	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	2.6		0.85	0.087	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.3		0.85	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.15	J	0.85	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	1.3		0.85	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	60		0.85	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	59		0.85	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	14		0.85	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	6.9		0.85	0.085	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.34	J B	0.85	0.086	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	470		21	1.7	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	130		21	1.7	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	590		21	1.7	ug/Kg	10		B/L/T PFAS	Total/NA

## Client Sample ID: NK284443

## Lab Sample ID: 320-113896-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.14	J	0.50	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.21	J	0.50	0.058	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	14		0.50	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.47	J	0.50	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	14		0.50	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	22		0.50	0.088	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	2.3		0.50	0.052	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.42	J	0.50	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.72		0.50	0.091	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	36		0.50	0.093	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	5.6	J	25	3.7	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFHxS - DL	380		25	3.7	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	380		25	3.7	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	690		63	5.1	ug/Kg	50		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Client Sample ID: NK284443 (Continued)

## Lab Sample ID: 320-113896-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Br-Perfluorooctanesulfonic acid - DL	210		63	5.1	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	890		63	5.1	ug/Kg	50		B/L/T PFAS	Total/NA
8:2 FTS - DL	2.6	J	25	2.5	ug/Kg	50		B/L/T PFAS	Total/NA

## Client Sample ID: NK284444

## Lab Sample ID: 320-113896-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.28	J	0.76	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.090	J	0.76	0.088	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	1.6		0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	0.21	J	0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.8		0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	4.6		0.76	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.7		0.76	0.078	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.80		0.76	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.82		0.76	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	34		0.76	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	33		0.76	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	8.7		0.76	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	4.3		0.76	0.076	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.67	J B	0.76	0.077	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	510		19	1.5	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	120		19	1.5	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	640		19	1.5	ug/Kg	10		B/L/T PFAS	Total/NA

## Client Sample ID: NK284445

## Lab Sample ID: 320-113896-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.33	J	1.0	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	0.19	J	1.0	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.35	J	1.0	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.47	J	1.0	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	6.4		1.0	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	0.50	J	1.0	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	6.9		1.0	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	6.6		1.0	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	2.1		1.0	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.86	J	1.0	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.56	J	1.0	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	3.0		1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	62		1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	59		1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	13		1.0	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	7.3		1.0	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	1.4	B	1.0	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	740		26	2.1	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	190		26	2.1	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	940		26	2.1	ug/Kg	10		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## **Client Sample ID: NK284446**

## **Lab Sample ID: 320-113896-29**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.50	J	0.70	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	0.31	J	0.70	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.68	J	0.70	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.74		0.70	0.082	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	8.1		0.70	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.51	J	0.70	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	8.6		0.70	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	6.8		0.70	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	2.4		0.70	0.073	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.3		0.70	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.37	J	0.70	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	18		0.70	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	5.3		0.70	0.070	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	1.2	B	0.70	0.071	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS - DL	84		35	5.2	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	84		35	5.2	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	820		88	7.1	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	200		88	7.1	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	1000		88	7.1	ug/Kg	50		B/L/T PFAS	Total/NA

## **Client Sample ID: NK284447**

## **Lab Sample ID: 320-113896-30**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total PFHxS	0.92	J	1.1	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.92	J	1.1	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	7.9	I	2.8	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	1.3	J	2.8	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	9.2		2.8	0.23	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: NK284448**

## **Lab Sample ID: 320-113896-31**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.41	J	0.56	0.065	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	3.8		0.56	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.21	J	0.56	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	4.0		0.56	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	2.2		0.56	0.098	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.21	J	0.56	0.058	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.21	J	0.56	0.096	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.2		0.56	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	3.1		0.56	0.083	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	44		0.56	0.083	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	40		0.56	0.083	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	2.8		0.56	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.56		0.56	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.49	J	0.56	0.056	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.068	J B	0.56	0.057	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	130		14	1.1	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	35		14	1.1	ug/Kg	10		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Client Sample ID: NK284448 (Continued)

## Lab Sample ID: 320-113896-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total PFOS - DL	170		14	1.1	ug/Kg	10		B/L/T PFAS	Total/NA

## Client Sample ID: NK284449

## Lab Sample ID: 320-113896-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.41	J	1.3	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	2.3		1.3	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	2.3		1.3	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	3.9		1.3	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.1	J	1.3	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.4		1.3	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPPeS)	0.31	J	1.3	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	2.9		1.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	84		1.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	81		1.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	6.6		1.3	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	37		1.3	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	3.4	B	1.3	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	390		33	2.7	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	81		33	2.7	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	470		33	2.7	ug/Kg	10		B/L/T PFAS	Total/NA

## Client Sample ID: NK284450

## Lab Sample ID: 320-113896-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.25	J	1.8	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	1.4	J	1.8	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.4	J	1.8	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	2.8		1.8	0.31	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.0	J	1.8	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.2	J	1.8	0.49	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.99	J	1.8	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	33		1.8	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	32		1.8	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	4.1		1.8	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	42		1.8	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	2.9	B	1.8	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	340		89	7.3	ug/Kg	20		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	51	J	89	7.3	ug/Kg	20		B/L/T PFAS	Total/NA
Total PFOS - DL	390		89	7.3	ug/Kg	20		B/L/T PFAS	Total/NA

## Client Sample ID: NK284451

## Lab Sample ID: 320-113896-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.14	J	0.92	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	0.86	J	0.92	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.86	J	0.92	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	2.0		0.92	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.69	J	0.92	0.094	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.58	J	0.92	0.25	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Client Sample ID: NK284451 (Continued)

## Lab Sample ID: 320-113896-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Br-Perfluorohexanesulfonic acid	0.80	J	0.92	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	31		0.92	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	30		0.92	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	3.6		0.92	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	12		0.92	0.092	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	1.9	B	0.92	0.093	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	350		46	3.7	ug/Kg	20		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	55		46	3.7	ug/Kg	20		B/L/T PFAS	Total/NA
Total PFOS - DL	400		46	3.7	ug/Kg	20		B/L/T PFAS	Total/NA

## Client Sample ID: NK284439

## Lab Sample ID: 320-113896-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.9		0.98	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	4.1		0.98	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	32		0.98	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	24		0.98	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	32		0.98	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	4.4		0.98	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.6		0.98	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	32		0.98	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	20		0.98	0.42	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	86		0.98	0.098	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	1.6	B	0.98	0.099	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid - DL	310		98	20	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	310		98	20	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	300		98	17	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	210		98	15	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	3600		98	15	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	3400		98	15	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	790		98	18	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	32000	E		250	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	16000	E		250	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	48000			250	ug/Kg	100		B/L/T PFAS	Total/NA

## Client Sample ID: NK284452

## Lab Sample ID: 320-113896-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanoic acid	11		0.97	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	0.23	J	0.97	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	12		0.97	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	13		0.97	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	5.7		0.97	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	4.1		0.97	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.1		0.97	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	21		0.97	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	2.0		0.97	0.41	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	2.4	B	0.97	0.098	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Client Sample ID: NK284452 (Continued)

## Lab Sample ID: 320-113896-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Br-Perfluorohexanesulfonic acid - DL	7.3	J	49	7.2	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFHxS - DL	200		49	7.2	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	200		49	7.2	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	1300		120	9.9	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	210		120	9.9	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	1500		120	9.9	ug/Kg	50		B/L/T PFAS	Total/NA
8:2 FTS - DL	49		49	4.9	ug/Kg	50		B/L/T PFAS	Total/NA

## Client Sample ID: NK284442 V24-20096 liver

## Lab Sample ID: 320-113896-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.44	J	1.1	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	15		1.1	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.48	J	1.1	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	15		1.1	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	73		1.1	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	19		1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	8.0		1.1	0.30	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.67	J	1.1	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	51		1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	1.5	B	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS - DL	220		55	8.1	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	220		55	8.1	ug/Kg	50		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	71		55	10	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	5100	E	140	11	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	1200		140	11	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	6300		140	11	ug/Kg	50		B/L/T PFAS	Total/NA

## Client Sample ID: NK284443 V24-20097 liver

## Lab Sample ID: 320-113896-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.17	J	0.93	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	18		0.93	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.60	J	0.93	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	19		0.93	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	39		0.93	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	4.8		0.93	0.095	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.90	J	0.93	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.79	J	0.93	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	54		0.93	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	4.8		0.93	0.39	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	5.1		0.93	0.093	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.19	J B	0.93	0.094	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	6.9	J	46	6.9	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFHxS - DL	410		46	6.9	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	400		46	6.9	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	1800		120	9.4	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	380		120	9.4	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	2200		120	9.4	ug/Kg	50		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284444 V24-20103 liver**

**Lab Sample ID: 320-113896-39**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	8.9		3.1	0.63	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	1.5	J	3.1	0.63	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	10		3.1	0.63	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	33		3.1	0.55	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	11		3.1	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	4.5		3.1	0.85	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	5.7		3.1	0.46	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	170		3.1	0.46	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	170		3.1	0.46	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	60		3.1	0.58	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	29		3.1	0.31	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	3.5	B	3.1	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	4500		390	32	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	890		390	32	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	5400		390	32	ug/Kg	50		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311140 liver**  
Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-1**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	7.8		0.99	0.23	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Perfluoropentanoic acid (PFPeA)	ND		0.99	0.17	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Perfluorohexanoic acid (PFHxA)	ND		0.99	0.27	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Perfluoroheptanoic acid (PFHpA)	ND		0.99	0.11	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
L-Perfluoroctanoic acid	ND		0.99	0.20	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Br-Perfluoroctanoic acid	ND		0.99	0.20	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Total PFOA	ND		0.99	0.20	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Perfluorononanoic acid (PFNA)	6.5		0.99	0.17	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Perfluorodecanoic acid (PFDA)	5.4		0.99	0.10	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Perfluoroundecanoic acid (PFUnA)	2.1		0.99	0.27	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.99	0.17	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.99	0.18	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Br-Perfluorohexanesulfonic acid	0.35 J		0.99	0.15	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Total PFHxS	2.7		0.99	0.15	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
L-Perfluorohexanesulfonic acid	2.4		0.99	0.15	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Perfluoroheptanesulfonic acid (PFHpS)	8.2		0.99	0.18	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
4:2 FTS	ND		0.99	0.26	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
6:2 FTS	ND		0.99	0.42	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
8:2 FTS	1.0		0.99	0.099	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
10:2 FTS	0.14 J		0.99	0.10	ug/Kg	07/29/24 11:09	08/09/24 04:58		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	47		25 - 150				07/29/24 11:09	08/09/24 04:58	1
13C5 PFPeA	64		25 - 150				07/29/24 11:09	08/09/24 04:58	1
13C2 PFHxA	73		25 - 150				07/29/24 11:09	08/09/24 04:58	1
13C4 PFHpA	82		25 - 150				07/29/24 11:09	08/09/24 04:58	1
13C4 PFOA	79		25 - 150				07/29/24 11:09	08/09/24 04:58	1
13C5 PFNA	60		25 - 150				07/29/24 11:09	08/09/24 04:58	1
13C2 PFDA	91		25 - 150				07/29/24 11:09	08/09/24 04:58	1
13C2 PFUnA	98		25 - 150				07/29/24 11:09	08/09/24 04:58	1
13C3 PFBS	62		25 - 150				07/29/24 11:09	08/09/24 04:58	1
18O2 PFHxS	71		25 - 150				07/29/24 11:09	08/09/24 04:58	1
13C4 PFOS	61		25 - 150				07/29/24 11:09	08/09/24 04:58	1
M2-4:2 FTS	178 *5+		25 - 150				07/29/24 11:09	08/09/24 04:58	1
M2-6:2 FTS	172 *5+		25 - 150				07/29/24 11:09	08/09/24 04:58	1
M2-8:2 FTS	325 *5+		25 - 150				07/29/24 11:09	08/09/24 04:58	1
13C2 10:2 FTS	306 *5+		25 - 150				07/29/24 11:09	08/09/24 04:58	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluoroctanesulfonic acid	1000		50	4.0	ug/Kg	07/29/24 11:09	08/15/24 10:59		20
Br-Perfluoroctanesulfonic acid	820		50	4.0	ug/Kg	07/29/24 11:09	08/15/24 10:59		20
Total PFOS	1800		50	4.0	ug/Kg	07/29/24 11:09	08/15/24 10:59		20
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	89		25 - 150				07/29/24 11:09	08/15/24 10:59	20

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311141 liver**  
Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-2**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	17		0.75	0.18	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Perfluoropentanoic acid (PFPeA)	ND		0.75	0.13	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Perfluorohexanoic acid (PFHxA)	ND		0.75	0.20	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Perfluoroheptanoic acid (PFHpA)	ND		0.75	0.087	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
L-Perfluoroctanoic acid	ND		0.75	0.15	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Br-Perfluoroctanoic acid	ND		0.75	0.15	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Total PFOA	ND		0.75	0.15	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Perfluorononanoic acid (PFNA)	26		0.75	0.13	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Perfluorodecanoic acid (PFDA)	18		0.75	0.077	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Perfluoroundecanoic acid (PFUnA)	8.0		0.75	0.20	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.75	0.13	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.75	0.14	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Br-Perfluorohexanesulfonic acid	0.20 J		0.75	0.11	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Total PFHxS	4.0		0.75	0.11	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
L-Perfluorohexanesulfonic acid	3.8		0.75	0.11	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Perfluoroheptanesulfonic acid (PFHpS)	6.8		0.75	0.14	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
4:2 FTS	ND		0.75	0.20	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
6:2 FTS	ND		0.75	0.32	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
8:2 FTS	0.64 J		0.75	0.075	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
10:2 FTS	0.083 J		0.75	0.075	ug/Kg	07/29/24 11:09	08/09/24 05:17		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	25		25 - 150				07/29/24 11:09	08/09/24 05:17	1
13C5 PFPeA	56		25 - 150				07/29/24 11:09	08/09/24 05:17	1
13C2 PFHxA	80		25 - 150				07/29/24 11:09	08/09/24 05:17	1
13C4 PFHpA	90		25 - 150				07/29/24 11:09	08/09/24 05:17	1
13C4 PFOA	82		25 - 150				07/29/24 11:09	08/09/24 05:17	1
13C5 PFNA	58		25 - 150				07/29/24 11:09	08/09/24 05:17	1
13C2 PFDA	100		25 - 150				07/29/24 11:09	08/09/24 05:17	1
13C2 PFUnA	110		25 - 150				07/29/24 11:09	08/09/24 05:17	1
13C3 PFBS	56		25 - 150				07/29/24 11:09	08/09/24 05:17	1
18O2 PFHxS	80		25 - 150				07/29/24 11:09	08/09/24 05:17	1
13C4 PFOS	68		25 - 150				07/29/24 11:09	08/09/24 05:17	1
M2-4:2 FTS	188 *5+		25 - 150				07/29/24 11:09	08/09/24 05:17	1
M2-6:2 FTS	139		25 - 150				07/29/24 11:09	08/09/24 05:17	1
M2-8:2 FTS	184 *5+		25 - 150				07/29/24 11:09	08/09/24 05:17	1
13C2 10:2 FTS	361 *5+		25 - 150				07/29/24 11:09	08/09/24 05:17	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluoroctanesulfonic acid	1100		93	7.6	ug/Kg	07/29/24 11:09	08/15/24 11:18		50
Br-Perfluoroctanesulfonic acid	840		93	7.6	ug/Kg	07/29/24 11:09	08/15/24 11:18		50
Total PFOS	1900		93	7.6	ug/Kg	07/29/24 11:09	08/15/24 11:18		50
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	88		25 - 150				07/29/24 11:09	08/15/24 11:18	50

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311142 liver**

**Lab Sample ID: 320-113896-3**

**Matrix: Tissue**

Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		14	3.4	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
Perfluoropentanoic acid (PFPeA)	ND		14	2.5	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
Perfluorohexanoic acid (PFHxA)	ND		14	3.9	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
Perfluoroheptanoic acid (PFHpA)	ND		14	1.7	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
<b>L-Perfluoroctanoic acid</b>	<b>3.8 J</b>		14	2.9	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
Br-Perfluoroctanoic acid	ND		14	2.9	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
<b>Total PFOA</b>	<b>3.8 J</b>		14	2.9	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>24</b>		14	2.5	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>3.3 J</b>		14	1.5	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
Perfluoroundecanoic acid (PFUnA)	ND		14	3.9	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
Perfluorobutanesulfonic acid (PFBS)	ND		14	2.4	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
Perfluoropentanesulfonic acid (PFPeS)	ND		14	2.6	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
Br-Perfluorohexanesulfonic acid	ND		14	2.1	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
<b>Total PFHxS</b>	<b>34</b>		14	2.1	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>34</b>		14	2.1	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>6.7 J</b>		14	2.6	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
4:2 FTS	ND		14	3.8	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
6:2 FTS	ND		14	6.1	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
8:2 FTS	ND		14	1.4	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
10:2 FTS	ND		14	1.4	ug/Kg	07/29/24 11:09	08/09/24 05:37		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	90		25 - 150				07/29/24 11:09	08/09/24 05:37	1
13C5 PFPeA	91		25 - 150				07/29/24 11:09	08/09/24 05:37	1
13C2 PFHxA	97		25 - 150				07/29/24 11:09	08/09/24 05:37	1
13C4 PFHpA	95		25 - 150				07/29/24 11:09	08/09/24 05:37	1
13C4 PFOA	95		25 - 150				07/29/24 11:09	08/09/24 05:37	1
13C5 PFNA	92		25 - 150				07/29/24 11:09	08/09/24 05:37	1
13C2 PFDA	98		25 - 150				07/29/24 11:09	08/09/24 05:37	1
13C2 PFUnA	112		25 - 150				07/29/24 11:09	08/09/24 05:37	1
13C3 PFBS	74		25 - 150				07/29/24 11:09	08/09/24 05:37	1
18O2 PFHxS	91		25 - 150				07/29/24 11:09	08/09/24 05:37	1
13C4 PFOS	78		25 - 150				07/29/24 11:09	08/09/24 05:37	1
M2-4:2 FTS	230 *5+		25 - 150				07/29/24 11:09	08/09/24 05:37	1
M2-6:2 FTS	139		25 - 150				07/29/24 11:09	08/09/24 05:37	1
M2-8:2 FTS	98		25 - 150				07/29/24 11:09	08/09/24 05:37	1
13C2 10:2 FTS	282 *5+		25 - 150				07/29/24 11:09	08/09/24 05:37	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluoroctanesulfonic acid</b>	<b>1800</b>		180	15	ug/Kg	07/29/24 11:09	08/15/24 11:38		5
<b>Br-Perfluoroctanesulfonic acid</b>	<b>340</b>		180	15	ug/Kg	07/29/24 11:09	08/15/24 11:38		5
<b>Total PFOS</b>	<b>2200</b>		180	15	ug/Kg	07/29/24 11:09	08/15/24 11:38		5
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	93		25 - 150				07/29/24 11:09	08/15/24 11:38	5

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311143 liver**

**Lab Sample ID: 320-113896-4**

**Matrix: Tissue**

Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>5.4</b>	<b>J</b>	7.1	1.7	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
Perfluoropentanoic acid (PFPeA)	ND		7.1	1.3	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
Perfluorohexanoic acid (PFHxA)	ND		7.1	2.0	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
Perfluoroheptanoic acid (PFHpA)	ND		7.1	0.83	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
L-Perfluoroctanoic acid	ND		7.1	1.4	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
Br-Perfluoroctanoic acid	ND		7.1	1.4	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
Total PFOA	ND		7.1	1.4	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>6.9</b>	<b>J</b>	7.1	1.3	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>2.1</b>	<b>J</b>	7.1	0.74	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
Perfluoroundecanoic acid (PFUnA)	ND		7.1	1.9	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
Perfluorobutanesulfonic acid (PFBS)	ND		7.1	1.2	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
Perfluoropentanesulfonic acid (PFPeS)	ND		7.1	1.3	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
Br-Perfluorohexanesulfonic acid	ND		7.1	1.1	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
<b>Total PFHxS</b>	<b>1.1</b>	<b>J</b>	7.1	1.1	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>1.1</b>	<b>J</b>	7.1	1.1	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		7.1	1.3	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>350</b>		18	1.5	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>290</b>		18	1.5	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
<b>Total PFOS</b>	<b>640</b>		18	1.5	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
4:2 FTS	ND		7.1	1.9	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
6:2 FTS	ND		7.1	3.0	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
8:2 FTS	ND		7.1	0.71	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
10:2 FTS	ND		7.1	0.72	ug/Kg	07/29/24 11:09	08/09/24 05:56		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	57		25 - 150			07/29/24 11:09	08/09/24 05:56		1
13C5 PFPeA	86		25 - 150			07/29/24 11:09	08/09/24 05:56		1
13C2 PFHxA	91		25 - 150			07/29/24 11:09	08/09/24 05:56		1
13C4 PFHpA	95		25 - 150			07/29/24 11:09	08/09/24 05:56		1
13C4 PFOA	87		25 - 150			07/29/24 11:09	08/09/24 05:56		1
13C5 PFNA	99		25 - 150			07/29/24 11:09	08/09/24 05:56		1
13C2 PFDA	96		25 - 150			07/29/24 11:09	08/09/24 05:56		1
13C2 PFUnA	95		25 - 150			07/29/24 11:09	08/09/24 05:56		1
13C3 PFBS	73		25 - 150			07/29/24 11:09	08/09/24 05:56		1
18O2 PFHxS	83		25 - 150			07/29/24 11:09	08/09/24 05:56		1
13C4 PFOS	84		25 - 150			07/29/24 11:09	08/09/24 05:56		1
M2-4:2 FTS	136		25 - 150			07/29/24 11:09	08/09/24 05:56		1
M2-6:2 FTS	158	*5+	25 - 150			07/29/24 11:09	08/09/24 05:56		1
M2-8:2 FTS	123		25 - 150			07/29/24 11:09	08/09/24 05:56		1
13C2 10:2 FTS	310	*5+	25 - 150			07/29/24 11:09	08/09/24 05:56		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311145 liver**  
Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-5**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	15		0.69	0.16	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
Perfluoropentanoic acid (PFPeA)	0.34 J		0.69	0.12	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
Perfluorohexanoic acid (PFHxA)	ND		0.69	0.19	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
Perfluoroheptanoic acid (PFHpA)	0.10 J		0.69	0.080	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
L-Perfluoroctanoic acid	1.2		0.69	0.14	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
Br-Perfluoroctanoic acid	ND		0.69	0.14	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
Total PFOA	1.2		0.69	0.14	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
Perfluorononanoic acid (PFNA)	56		0.69	0.12	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
Perfluorodecanoic acid (PFDA)	31		0.69	0.071	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
Perfluoroundecanoic acid (PFUnA)	2.6		0.69	0.19	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.69	0.12	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.69	0.12	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
4:2 FTS	ND		0.69	0.18	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
6:2 FTS	0.52 J		0.69	0.29	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
8:2 FTS	8.9		0.69	0.069	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
10:2 FTS	0.20 J		0.69	0.070	ug/Kg	07/29/24 11:09	08/09/24 06:15		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	38		25 - 150				07/29/24 11:09	08/09/24 06:15	1
13C5 PFPeA	73		25 - 150				07/29/24 11:09	08/09/24 06:15	1
13C2 PFHxA	82		25 - 150				07/29/24 11:09	08/09/24 06:15	1
13C4 PFHpA	87		25 - 150				07/29/24 11:09	08/09/24 06:15	1
13C4 PFOA	84		25 - 150				07/29/24 11:09	08/09/24 06:15	1
13C5 PFNA	53		25 - 150				07/29/24 11:09	08/09/24 06:15	1
13C2 PFDA	94		25 - 150				07/29/24 11:09	08/09/24 06:15	1
13C2 PFUnA	116		25 - 150				07/29/24 11:09	08/09/24 06:15	1
13C3 PFBS	60		25 - 150				07/29/24 11:09	08/09/24 06:15	1
M2-4:2 FTS	182 *5+		25 - 150				07/29/24 11:09	08/09/24 06:15	1
M2-6:2 FTS	117		25 - 150				07/29/24 11:09	08/09/24 06:15	1
M2-8:2 FTS	140		25 - 150				07/29/24 11:09	08/09/24 06:15	1
13C2 10:2 FTS	266 *5+		25 - 150				07/29/24 11:09	08/09/24 06:15	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	ND		69	10	ug/Kg	07/29/24 11:09	08/15/24 16:10		100
Total PFHxS	130		69	10	ug/Kg	07/29/24 11:09	08/15/24 16:10		100
L-Perfluorohexanesulfonic acid	130		69	10	ug/Kg	07/29/24 11:09	08/15/24 16:10		100
Perfluoroheptanesulfonic acid (PFHps)	320		69	13	ug/Kg	07/29/24 11:09	08/15/24 16:10		100
L-Perfluoroctanesulfonic acid	31000 E		170	14	ug/Kg	07/29/24 11:09	08/15/24 16:10		100
Br-Perfluoroctanesulfonic acid	16000 E		170	14	ug/Kg	07/29/24 11:09	08/15/24 16:10		100
Total PFOS	47000		170	14	ug/Kg	07/29/24 11:09	08/15/24 16:10		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	90		25 - 150				07/29/24 11:09	08/15/24 16:10	100
13C4 PFOS	70		25 - 150				07/29/24 11:09	08/15/24 16:10	100

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311145 femur**

**Lab Sample ID: 320-113896-6**

**Matrix: Tissue**

Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.3	1.2	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
Perfluoropentanoic acid (PFPeA)	ND		5.3	0.92	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
Perfluorohexanoic acid (PFHxA)	ND		5.3	1.4	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
Perfluoroheptanoic acid (PFHpA)	ND		5.3	0.61	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
L-Perfluoroctanoic acid	ND		5.3	1.1	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
Br-Perfluoroctanoic acid	ND		5.3	1.1	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
Total PFOA	ND		5.3	1.1	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>4.4 J</b>		5.3	0.92	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.7 J</b>		5.3	0.54	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
Perfluoroundecanoic acid (PFUnA)	ND		5.3	1.4	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
Perfluorobutanesulfonic acid (PFBS)	ND		5.3	0.89	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
Perfluoropentanesulfonic acid (PFPeS)	ND		5.3	0.95	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
Br-Perfluorohexanesulfonic acid	ND		5.3	0.78	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
<b>Total PFHxS</b>	<b>45</b>		5.3	0.78	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>45</b>		5.3	0.78	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>40</b>		5.3	0.97	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
4:2 FTS	ND		5.3	1.4	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
6:2 FTS	ND		5.3	2.2	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
8:2 FTS	ND		5.3	0.53	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
10:2 FTS	ND		5.3	0.53	ug/Kg	07/29/24 11:09	08/09/24 06:35		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	84		25 - 150				07/29/24 11:09	08/09/24 06:35	1
13C5 PFPeA	91		25 - 150				07/29/24 11:09	08/09/24 06:35	1
13C2 PFHxA	86		25 - 150				07/29/24 11:09	08/09/24 06:35	1
13C4 PFHpA	81		25 - 150				07/29/24 11:09	08/09/24 06:35	1
13C4 PFOA	94		25 - 150				07/29/24 11:09	08/09/24 06:35	1
13C5 PFNA	82		25 - 150				07/29/24 11:09	08/09/24 06:35	1
13C2 PFDA	88		25 - 150				07/29/24 11:09	08/09/24 06:35	1
13C2 PFUnA	90		25 - 150				07/29/24 11:09	08/09/24 06:35	1
13C3 PFBS	85		25 - 150				07/29/24 11:09	08/09/24 06:35	1
18O2 PFHxS	83		25 - 150				07/29/24 11:09	08/09/24 06:35	1
13C4 PFOS	74		25 - 150				07/29/24 11:09	08/09/24 06:35	1
M2-4:2 FTS	170 *5+		25 - 150				07/29/24 11:09	08/09/24 06:35	1
M2-6:2 FTS	134		25 - 150				07/29/24 11:09	08/09/24 06:35	1
M2-8:2 FTS	134		25 - 150				07/29/24 11:09	08/09/24 06:35	1
13C2 10:2 FTS	225 *5+		25 - 150				07/29/24 11:09	08/09/24 06:35	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluoroctanesulfonic acid</b>	<b>1600 I</b>		130	11	ug/Kg	07/29/24 11:09	08/15/24 11:57		10
<b>Br-Perfluoroctanesulfonic acid</b>	<b>570</b>		130	11	ug/Kg	07/29/24 11:09	08/15/24 11:57		10
<b>Total PFOS</b>	<b>2200</b>		130	11	ug/Kg	07/29/24 11:09	08/15/24 11:57		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	94		25 - 150				07/29/24 11:09	08/15/24 11:57	10

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311146 liver**  
Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-7**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	13		0.65	0.15	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
Perfluoropentanoic acid (PFPeA)	0.52 J		0.65	0.11	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
Perfluorohexanoic acid (PFHxA)	0.51 J		0.65	0.18	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
Perfluoroheptanoic acid (PFHpA)	0.20 J		0.65	0.075	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
L-Perfluorooctanoic acid	8.1		0.65	0.13	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
Br-Perfluorooctanoic acid	0.30 J		0.65	0.13	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
Total PFOA	8.4		0.65	0.13	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
Perfluorodecanoic acid (PFDA)	28		0.65	0.066	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
Perfluoroundecanoic acid (PFUnA)	5.3		0.65	0.18	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.65	0.11	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
Perfluoropentanesulfonic acid (PFPeS)	0.34 J		0.65	0.12	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
4:2 FTS	ND		0.65	0.17	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
6:2 FTS	3.0		0.65	0.27	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
8:2 FTS	32		0.65	0.065	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
10:2 FTS	0.35 J		0.65	0.065	ug/Kg	07/29/24 11:09	08/09/24 06:54		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	36		25 - 150				07/29/24 11:09	08/09/24 06:54	1
13C5 PFPeA	72		25 - 150				07/29/24 11:09	08/09/24 06:54	1
13C2 PFHxA	89		25 - 150				07/29/24 11:09	08/09/24 06:54	1
13C4 PFHpA	97		25 - 150				07/29/24 11:09	08/09/24 06:54	1
13C4 PFOA	86		25 - 150				07/29/24 11:09	08/09/24 06:54	1
13C2 PFDA	108		25 - 150				07/29/24 11:09	08/09/24 06:54	1
13C2 PFUnA	117		25 - 150				07/29/24 11:09	08/09/24 06:54	1
13C3 PFBS	67		25 - 150				07/29/24 11:09	08/09/24 06:54	1
M2-4:2 FTS	157 *5+		25 - 150				07/29/24 11:09	08/09/24 06:54	1
M2-6:2 FTS	147		25 - 150				07/29/24 11:09	08/09/24 06:54	1
M2-8:2 FTS	147		25 - 150				07/29/24 11:09	08/09/24 06:54	1
13C2 10:2 FTS	213 *5+		25 - 150				07/29/24 11:09	08/09/24 06:54	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	72		65	11	ug/Kg	07/29/24 11:09	08/15/24 16:29		100
Br-Perfluorohexanesulfonic acid	ND		65	9.5	ug/Kg	07/29/24 11:09	08/15/24 16:29		100
Total PFHxS	110		65	9.5	ug/Kg	07/29/24 11:09	08/15/24 16:29		100
L-Perfluorohexanesulfonic acid	110		65	9.5	ug/Kg	07/29/24 11:09	08/15/24 16:29		100
Perfluoroheptanesulfonic acid (PFHpS)	110		65	12	ug/Kg	07/29/24 11:09	08/15/24 16:29		100
L-Perfluoroctanesulfonic acid	19000 E		160	13	ug/Kg	07/29/24 11:09	08/15/24 16:29		100
Br-Perfluoroctanesulfonic acid	4500		160	13	ug/Kg	07/29/24 11:09	08/15/24 16:29		100
Total PFOS	24000		160	13	ug/Kg	07/29/24 11:09	08/15/24 16:29		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFNA	83		25 - 150				07/29/24 11:09	08/15/24 16:29	100
18O2 PFHxS	87		25 - 150				07/29/24 11:09	08/15/24 16:29	100
13C4 PFOS	77		25 - 150				07/29/24 11:09	08/15/24 16:29	100

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311146 femur**

**Lab Sample ID: 320-113896-8**

**Matrix: Tissue**

Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.4	0.81	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
Perfluoropentanoic acid (PFPeA)	ND		3.4	0.60	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
Perfluorohexanoic acid (PFHxA)	ND		3.4	0.94	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
Perfluoroheptanoic acid (PFHpA)	ND		3.4	0.40	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
<b>L-Perfluorooctanoic acid</b>	<b>1.1 J</b>		3.4	0.70	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
Br-Perfluorooctanoic acid	ND		3.4	0.70	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
<b>Total PFOA</b>	<b>1.1 J</b>		3.4	0.70	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>5.3</b>		3.4	0.60	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.8 J</b>		3.4	0.36	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
Perfluoroundecanoic acid (PFUnA)	ND		3.4	0.94	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
Perfluorobutanesulfonic acid (PFBS)	ND		3.4	0.59	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
Perfluoropentanesulfonic acid (PFPeS)	ND		3.4	0.62	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
Br-Perfluorohexanesulfonic acid	0.66 J		3.4	0.51	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
<b>Total PFHxS</b>	<b>23</b>		3.4	0.51	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>22</b>		3.4	0.51	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>12</b>		3.4	0.64	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
4:2 FTS	ND		3.4	0.92	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
6:2 FTS	ND		3.4	1.5	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
<b>8:2 FTS</b>	<b>1.5 J</b>		3.4	0.34	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
10:2 FTS	ND		3.4	0.35	ug/Kg	07/29/24 11:09	08/09/24 07:33		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	82		25 - 150				07/29/24 11:09	08/09/24 07:33	1
13C5 PFPeA	86		25 - 150				07/29/24 11:09	08/09/24 07:33	1
13C2 PFHxA	88		25 - 150				07/29/24 11:09	08/09/24 07:33	1
13C4 PFHpA	88		25 - 150				07/29/24 11:09	08/09/24 07:33	1
13C4 PFOA	92		25 - 150				07/29/24 11:09	08/09/24 07:33	1
13C5 PFNA	85		25 - 150				07/29/24 11:09	08/09/24 07:33	1
13C2 PFDA	106		25 - 150				07/29/24 11:09	08/09/24 07:33	1
13C2 PFUnA	104		25 - 150				07/29/24 11:09	08/09/24 07:33	1
13C3 PFBS	82		25 - 150				07/29/24 11:09	08/09/24 07:33	1
18O2 PFHxS	86		25 - 150				07/29/24 11:09	08/09/24 07:33	1
13C4 PFOS	72		25 - 150				07/29/24 11:09	08/09/24 07:33	1
M2-4:2 FTS	174 *5+		25 - 150				07/29/24 11:09	08/09/24 07:33	1
M2-6:2 FTS	142		25 - 150				07/29/24 11:09	08/09/24 07:33	1
M2-8:2 FTS	121		25 - 150				07/29/24 11:09	08/09/24 07:33	1
13C2 10:2 FTS	406 *5+		25 - 150				07/29/24 11:09	08/09/24 07:33	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluorooctanesulfonic acid</b>	<b>1500</b>		86	7.0	ug/Kg	07/29/24 11:09	08/15/24 12:36		10
<b>Br-Perfluorooctanesulfonic acid</b>	<b>300</b>		86	7.0	ug/Kg	07/29/24 11:09	08/15/24 12:36		10
<b>Total PFOS</b>	<b>1800</b>		86	7.0	ug/Kg	07/29/24 11:09	08/15/24 12:36		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	99		25 - 150				07/29/24 11:09	08/15/24 12:36	10

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311129 liver**

**Lab Sample ID: 320-113896-9**

**Matrix: Tissue**

Date Collected: 05/16/24 07:00

Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.0	J	2.5	0.59	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Perfluoropentanoic acid (PFPeA)	ND		2.5	0.44	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Perfluorohexanoic acid (PFHxA)	ND		2.5	0.68	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Perfluoroheptanoic acid (PFHpA)	0.56	J	2.5	0.29	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
L-Perfluorooctanoic acid	9.1		2.5	0.51	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Br-Perfluorooctanoic acid	1.0	J	2.5	0.51	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Total PFOA	10		2.5	0.51	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Perfluorononanoic acid (PFNA)	11		2.5	0.44	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Perfluorodecanoic acid (PFDA)	1.7	J	2.5	0.26	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Perfluoroundecanoic acid (PFUnA)	ND		2.5	0.68	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Perfluorobutanesulfonic acid (PFBS)	ND		2.5	0.43	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Perfluoropentanesulfonic acid (PFPeS)	1.9	J	2.5	0.45	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Br-Perfluorohexanesulfonic acid	8.3		2.5	0.37	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Total PFHxS	110		2.5	0.37	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
L-Perfluorohexanesulfonic acid	100		2.5	0.37	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Perfluoroheptanesulfonic acid (PFHpS)	9.3		2.5	0.46	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
4:2 FTS	ND		2.5	0.67	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
6:2 FTS	ND		2.5	1.1	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
8:2 FTS	ND		2.5	0.25	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
10:2 FTS	ND		2.5	0.25	ug/Kg	07/29/24 11:09	08/09/24 07:53		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	79		25 - 150				07/29/24 11:09	08/09/24 07:53	1
13C5 PFPeA	87		25 - 150				07/29/24 11:09	08/09/24 07:53	1
13C2 PFHxA	96		25 - 150				07/29/24 11:09	08/09/24 07:53	1
13C4 PFHpA	85		25 - 150				07/29/24 11:09	08/09/24 07:53	1
13C4 PFOA	87		25 - 150				07/29/24 11:09	08/09/24 07:53	1
13C5 PFNA	93		25 - 150				07/29/24 11:09	08/09/24 07:53	1
13C2 PFDA	98		25 - 150				07/29/24 11:09	08/09/24 07:53	1
13C2 PFUnA	99		25 - 150				07/29/24 11:09	08/09/24 07:53	1
13C3 PFBS	84		25 - 150				07/29/24 11:09	08/09/24 07:53	1
18O2 PFHxS	80		25 - 150				07/29/24 11:09	08/09/24 07:53	1
13C4 PFOS	74		25 - 150				07/29/24 11:09	08/09/24 07:53	1
M2-4:2 FTS	139		25 - 150				07/29/24 11:09	08/09/24 07:53	1
M2-6:2 FTS	124		25 - 150				07/29/24 11:09	08/09/24 07:53	1
M2-8:2 FTS	116		25 - 150				07/29/24 11:09	08/09/24 07:53	1
13C2 10:2 FTS	292	*5+	25 - 150				07/29/24 11:09	08/09/24 07:53	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanesulfonic acid	720		63	5.1	ug/Kg	07/29/24 11:09	08/15/24 13:15		10
Br-Perfluorooctanesulfonic acid	460		63	5.1	ug/Kg	07/29/24 11:09	08/15/24 13:15		10
Total PFOS	1200		63	5.1	ug/Kg	07/29/24 11:09	08/15/24 13:15		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	93		25 - 150				07/29/24 11:09	08/15/24 13:15	10

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311131 liver**  
Date Collected: 05/16/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-10**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.4	J	3.3	0.79	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
Perfluoropentanoic acid (PFPeA)	ND		3.3	0.58	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
Perfluorohexanoic acid (PFHxA)	ND		3.3	0.91	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
Perfluoroheptanoic acid (PFHpA)	2.0	J	3.3	0.39	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
L-Perfluorooctanoic acid	120		3.3	0.67	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
Br-Perfluorooctanoic acid	13		3.3	0.67	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
Total PFOA	140		3.3	0.67	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
Perfluorononanoic acid (PFNA)	160		3.3	0.58	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
Perfluorodecanoic acid (PFDA)	16		3.3	0.34	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
Perfluoroundecanoic acid (PFUnA)	ND		3.3	0.91	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
Perfluorobutanesulfonic acid (PFBS)	ND		3.3	0.57	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
Perfluoropentanesulfonic acid (PFPeS)	6.0		3.3	0.60	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
4:2 FTS	ND		3.3	0.89	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
6:2 FTS	15		3.3	1.4	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
8:2 FTS	14		3.3	0.33	ug/Kg	07/29/24 11:09	08/09/24 08:12		1
10:2 FTS	ND		3.3	0.34	ug/Kg	07/29/24 11:09	08/09/24 08:12		1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	84		25 - 150	07/29/24 11:09	08/09/24 08:12	1
13C5 PFPeA	108		25 - 150	07/29/24 11:09	08/09/24 08:12	1
13C2 PFHxA	103		25 - 150	07/29/24 11:09	08/09/24 08:12	1
13C4 PFHpA	94		25 - 150	07/29/24 11:09	08/09/24 08:12	1
13C4 PFOA	91		25 - 150	07/29/24 11:09	08/09/24 08:12	1
13C5 PFNA	90		25 - 150	07/29/24 11:09	08/09/24 08:12	1
13C2 PFDA	99		25 - 150	07/29/24 11:09	08/09/24 08:12	1
13C2 PFUnA	100		25 - 150	07/29/24 11:09	08/09/24 08:12	1
13C3 PFBS	90		25 - 150	07/29/24 11:09	08/09/24 08:12	1
M2-4:2 FTS	116		25 - 150	07/29/24 11:09	08/09/24 08:12	1
M2-6:2 FTS	147		25 - 150	07/29/24 11:09	08/09/24 08:12	1
M2-8:2 FTS	105		25 - 150	07/29/24 11:09	08/09/24 08:12	1
13C2 10:2 FTS	344 *5+		25 - 150	07/29/24 11:09	08/09/24 08:12	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	110	J	330	49	ug/Kg	07/29/24 11:09	08/15/24 15:50		100
Total PFHxS	2000		330	49	ug/Kg	07/29/24 11:09	08/15/24 15:50		100
L-Perfluorohexanesulfonic acid	1900		330	49	ug/Kg	07/29/24 11:09	08/15/24 15:50		100
Perfluoroheptanesulfonic acid (PFHxS)	170	J	330	62	ug/Kg	07/29/24 11:09	08/15/24 15:50		100
L-Perfluoroctanesulfonic acid	12000		830	68	ug/Kg	07/29/24 11:09	08/15/24 15:50		100
Br-Perfluoroctanesulfonic acid	5600		830	68	ug/Kg	07/29/24 11:09	08/15/24 15:50		100
Total PFOS	17000		830	68	ug/Kg	07/29/24 11:09	08/15/24 15:50		100
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
18O2 PFHxS	109		25 - 150	07/29/24 11:09	08/15/24 15:50	100			
13C4 PFOS	100		25 - 150	07/29/24 11:09	08/15/24 15:50	100			

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311133 liver**

**Lab Sample ID: 320-113896-11**

**Matrix: Tissue**

Date Collected: 05/16/24 07:00  
Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.7	J	2.7	0.64	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Perfluoropentanoic acid (PFPeA)	ND		2.7	0.47	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Perfluorohexanoic acid (PFHxA)	ND		2.7	0.74	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Perfluoroheptanoic acid (PFHpA)	0.60	J	2.7	0.31	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
L-Perfluorooctanoic acid	23		2.7	0.55	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Br-Perfluorooctanoic acid	2.6	J	2.7	0.55	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Total PFOA	26		2.7	0.55	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Perfluorononanoic acid (PFNA)	26		2.7	0.47	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Perfluorodecanoic acid (PFDA)	2.8		2.7	0.28	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Perfluoroundecanoic acid (PFUnA)	ND		2.7	0.74	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Perfluorobutanesulfonic acid (PFBS)	ND		2.7	0.46	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Perfluoropentanesulfonic acid (PFPeS)	1.8	J	2.7	0.49	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Br-Perfluorohexanesulfonic acid	15		2.7	0.40	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Total PFHxS	150		2.7	0.40	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
L-Perfluorohexanesulfonic acid	130		2.7	0.40	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Perfluoroheptanesulfonic acid (PFHpS)	22		2.7	0.50	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
4:2 FTS	ND		2.7	0.72	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
6:2 FTS	ND		2.7	1.1	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
8:2 FTS	0.60	J	2.7	0.27	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
10:2 FTS	ND		2.7	0.27	ug/Kg	07/29/24 11:09	08/09/24 08:31		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	74		25 - 150				07/29/24 11:09	08/09/24 08:31	1
13C5 PFPeA	89		25 - 150				07/29/24 11:09	08/09/24 08:31	1
13C2 PFHxA	97		25 - 150				07/29/24 11:09	08/09/24 08:31	1
13C4 PFHpA	97		25 - 150				07/29/24 11:09	08/09/24 08:31	1
13C4 PFOA	90		25 - 150				07/29/24 11:09	08/09/24 08:31	1
13C5 PFNA	98		25 - 150				07/29/24 11:09	08/09/24 08:31	1
13C2 PFDA	94		25 - 150				07/29/24 11:09	08/09/24 08:31	1
13C2 PFUnA	91		25 - 150				07/29/24 11:09	08/09/24 08:31	1
13C3 PFBS	85		25 - 150				07/29/24 11:09	08/09/24 08:31	1
18O2 PFHxS	85		25 - 150				07/29/24 11:09	08/09/24 08:31	1
13C4 PFOS	75		25 - 150				07/29/24 11:09	08/09/24 08:31	1
M2-4:2 FTS	134		25 - 150				07/29/24 11:09	08/09/24 08:31	1
M2-6:2 FTS	137		25 - 150				07/29/24 11:09	08/09/24 08:31	1
M2-8:2 FTS	118		25 - 150				07/29/24 11:09	08/09/24 08:31	1
13C2 10:2 FTS	220	*5+	25 - 150				07/29/24 11:09	08/09/24 08:31	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanesulfonic acid	1700		140	11	ug/Kg	07/29/24 11:09	08/16/24 09:38		20
Br-Perfluorooctanesulfonic acid	720		140	11	ug/Kg	07/29/24 11:09	08/16/24 09:38		20
Total PFOS	2400		140	11	ug/Kg	07/29/24 11:09	08/16/24 09:38		20
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	92		25 - 150				07/29/24 11:09	08/16/24 09:38	20

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK319511 muscle**

**Lab Sample ID: 320-113896-12**

**Matrix: Tissue**

Date Collected: 02/10/24 10:00  
Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.53	0.12	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Perfluoropentanoic acid (PFPeA)	ND		0.53	0.093	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Perfluorohexanoic acid (PFHxA)	ND		0.53	0.14	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Perfluoroheptanoic acid (PFHpA)	ND		0.53	0.061	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
L-Perfluoroctanoic acid	ND		0.53	0.11	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Br-Perfluoroctanoic acid	ND		0.53	0.11	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Total PFOA	ND		0.53	0.11	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Perfluorononanoic acid (PFNA)	ND		0.53	0.093	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Perfluorodecanoic acid (PFDA)	ND		0.53	0.054	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Perfluoroundecanoic acid (PFUnA)	ND		0.53	0.14	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.53	0.090	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.53	0.096	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Br-Perfluorohexanesulfonic acid	ND		0.53	0.078	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Total PFHxS	ND		0.53	0.078	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
L-Perfluorohexanesulfonic acid	ND		0.53	0.078	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.53	0.098	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
L-Perfluoroctanesulfonic acid	ND		1.3	0.11	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Br-Perfluoroctanesulfonic acid	ND		1.3	0.11	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Total PFOS	ND		1.3	0.11	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
4:2 FTS	ND		0.53	0.14	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
6:2 FTS	ND		0.53	0.22	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
8:2 FTS	ND		0.53	0.053	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
10:2 FTS	ND		0.53	0.053	ug/Kg	07/29/24 11:09	08/09/24 08:51		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	59		25 - 150			07/29/24 11:09	08/09/24 08:51		1
13C5 PFPeA	79		25 - 150			07/29/24 11:09	08/09/24 08:51		1
13C2 PFHxA	84		25 - 150			07/29/24 11:09	08/09/24 08:51		1
13C4 PFHpA	81		25 - 150			07/29/24 11:09	08/09/24 08:51		1
13C4 PFOA	88		25 - 150			07/29/24 11:09	08/09/24 08:51		1
13C5 PFNA	30		25 - 150			07/29/24 11:09	08/09/24 08:51		1
13C2 PFDA	108		25 - 150			07/29/24 11:09	08/09/24 08:51		1
13C2 PFUnA	93		25 - 150			07/29/24 11:09	08/09/24 08:51		1
13C3 PFBS	65		25 - 150			07/29/24 11:09	08/09/24 08:51		1
18O2 PFHxS	79		25 - 150			07/29/24 11:09	08/09/24 08:51		1
13C4 PFOS	71		25 - 150			07/29/24 11:09	08/09/24 08:51		1
M2-4:2 FTS	142		25 - 150			07/29/24 11:09	08/09/24 08:51		1
M2-6:2 FTS	180 *5+		25 - 150			07/29/24 11:09	08/09/24 08:51		1
M2-8:2 FTS	184 *5+		25 - 150			07/29/24 11:09	08/09/24 08:51		1
13C2 10:2 FTS	300 *5+		25 - 150			07/29/24 11:09	08/09/24 08:51		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK319092 liver**

**Lab Sample ID: 320-113896-13**

**Matrix: Tissue**

Date Collected: 02/10/24 10:00  
Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.66	0.16	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Perfluoropentanoic acid (PFPeA)	ND		0.66	0.12	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Perfluorohexanoic acid (PFHxA)	ND		0.66	0.18	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Perfluoroheptanoic acid (PFHpA)	ND		0.66	0.077	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
L-Perfluoroctanoic acid	ND		0.66	0.13	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Br-Perfluoroctanoic acid	ND		0.66	0.13	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Total PFOA	ND		0.66	0.13	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Perfluorononanoic acid (PFNA)	ND		0.66	0.12	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.47 J</b>		0.66	0.068	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.20 J</b>		0.66	0.18	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.66	0.11	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.66	0.12	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Br-Perfluorohexanesulfonic acid	ND		0.66	0.098	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Total PFHxS	ND		0.66	0.098	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
L-Perfluorohexanesulfonic acid	ND		0.66	0.098	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.66	0.12	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
L-Perfluoroctanesulfonic acid	ND		1.7	0.13	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Br-Perfluoroctanesulfonic acid	ND		1.7	0.13	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Total PFOS	ND		1.7	0.13	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
4:2 FTS	ND		0.66	0.18	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
6:2 FTS	ND		0.66	0.28	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
8:2 FTS	ND		0.66	0.066	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
10:2 FTS	ND		0.66	0.067	ug/Kg	07/29/24 11:09	08/09/24 09:10		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	53		25 - 150			07/29/24 11:09	08/09/24 09:10		1
13C5 PFPeA	84		25 - 150			07/29/24 11:09	08/09/24 09:10		1
13C2 PFHxA	85		25 - 150			07/29/24 11:09	08/09/24 09:10		1
13C4 PFHpA	88		25 - 150			07/29/24 11:09	08/09/24 09:10		1
13C4 PFOA	87		25 - 150			07/29/24 11:09	08/09/24 09:10		1
13C5 PFNA	97		25 - 150			07/29/24 11:09	08/09/24 09:10		1
13C2 PFDA	111		25 - 150			07/29/24 11:09	08/09/24 09:10		1
13C2 PFUnA	106		25 - 150			07/29/24 11:09	08/09/24 09:10		1
13C3 PFBS	70		25 - 150			07/29/24 11:09	08/09/24 09:10		1
18O2 PFHxS	85		25 - 150			07/29/24 11:09	08/09/24 09:10		1
13C4 PFOS	81		25 - 150			07/29/24 11:09	08/09/24 09:10		1
M2-4:2 FTS	192 *5+		25 - 150			07/29/24 11:09	08/09/24 09:10		1
M2-6:2 FTS	76		25 - 150			07/29/24 11:09	08/09/24 09:10		1
M2-8:2 FTS	167 *5+		25 - 150			07/29/24 11:09	08/09/24 09:10		1
13C2 10:2 FTS	397 *5+		25 - 150			07/29/24 11:09	08/09/24 09:10		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: Velvet ant NE2 03**

**Lab Sample ID: 320-113896-14**

**Matrix: Tissue**

Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.7	0.87	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
Perfluoropentanoic acid (PFPeA)	ND		3.7	0.65	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
Perfluorohexanoic acid (PFHxA)	ND		3.7	1.0	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
Perfluoroheptanoic acid (PFHpA)	ND		3.7	0.43	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
<b>L-Perfluoroctanoic acid</b>	<b>1.1 J</b>		3.7	0.75	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
Br-Perfluoroctanoic acid	ND		3.7	0.75	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
<b>Total PFOA</b>	<b>1.1 J</b>		3.7	0.75	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
Perfluorononanoic acid (PFNA)	ND		3.7	0.65	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
Perfluorodecanoic acid (PFDA)	ND		3.7	0.38	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
Perfluoroundecanoic acid (PFUnA)	ND		3.7	1.0	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
Perfluorobutanesulfonic acid (PFBS)	ND		3.7	0.63	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
Perfluoropentanesulfonic acid (PFPeS)	ND		3.7	0.67	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
Br-Perfluorohexanesulfonic acid	ND		3.7	0.55	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
<b>Total PFHxS</b>	<b>2.5 J</b>		3.7	0.55	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>2.5 J</b>		3.7	0.55	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		3.7	0.69	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>4.8 J</b>		9.3	0.75	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>2.0 J</b>		9.3	0.75	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
<b>Total PFOS</b>	<b>6.9 J</b>		9.3	0.75	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
4:2 FTS	ND		3.7	0.99	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
6:2 FTS	ND		3.7	1.6	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
8:2 FTS	ND		3.7	0.37	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
10:2 FTS	ND		3.7	0.37	ug/Kg	07/29/24 11:09	08/09/24 09:30		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	92		25 - 150			07/29/24 11:09	08/09/24 09:30		1
13C5 PFPeA	96		25 - 150			07/29/24 11:09	08/09/24 09:30		1
13C2 PFHxA	100		25 - 150			07/29/24 11:09	08/09/24 09:30		1
13C4 PFHpA	91		25 - 150			07/29/24 11:09	08/09/24 09:30		1
13C4 PFOA	92		25 - 150			07/29/24 11:09	08/09/24 09:30		1
13C5 PFNA	93		25 - 150			07/29/24 11:09	08/09/24 09:30		1
13C2 PFDA	91		25 - 150			07/29/24 11:09	08/09/24 09:30		1
13C2 PFUnA	87		25 - 150			07/29/24 11:09	08/09/24 09:30		1
13C3 PFBS	83		25 - 150			07/29/24 11:09	08/09/24 09:30		1
18O2 PFHxS	89		25 - 150			07/29/24 11:09	08/09/24 09:30		1
13C4 PFOS	90		25 - 150			07/29/24 11:09	08/09/24 09:30		1
M2-4:2 FTS	95		25 - 150			07/29/24 11:09	08/09/24 09:30		1
M2-6:2 FTS	103		25 - 150			07/29/24 11:09	08/09/24 09:30		1
M2-8:2 FTS	103		25 - 150			07/29/24 11:09	08/09/24 09:30		1
13C2 10:2 FTS	133		25 - 150			07/29/24 11:09	08/09/24 09:30		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: ArtNE2 01**  
Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-15**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.91	J	1.2	0.29	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Perfluoropentanoic acid (PFPeA)	5.0		1.2	0.21	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Perfluorohexanoic acid (PFHxA)	14		1.2	0.33	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Perfluoroheptanoic acid (PFHpA)	5.2		1.2	0.14	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
L-Perfluorooctanoic acid	13		1.2	0.25	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Br-Perfluorooctanoic acid	1.1	J	1.2	0.25	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Total PFOA	14		1.2	0.25	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Perfluorononanoic acid (PFNA)	10	I	1.2	0.21	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Perfluorodecanoic acid (PFDA)	0.69	J	1.2	0.13	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Perfluoroundecanoic acid (PFUnA)	ND		1.2	0.33	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Perfluorobutanesulfonic acid (PFBS)	1.5		1.2	0.21	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Perfluoropentanesulfonic acid (PFPeS)	2.2		1.2	0.22	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Br-Perfluorohexanesulfonic acid	8.9		1.2	0.18	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Total PFHxS	63		1.2	0.18	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
L-Perfluorohexanesulfonic acid	54		1.2	0.18	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Perfluoroheptanesulfonic acid (PFHpS)	9.2		1.2	0.23	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
4:2 FTS	ND		1.2	0.32	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
6:2 FTS	49		1.2	0.52	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
8:2 FTS	1.3		1.2	0.12	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
10:2 FTS	ND		1.2	0.12	ug/Kg	07/29/24 11:09	08/09/24 09:49		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	84		25 - 150				07/29/24 11:09	08/09/24 09:49	1
13C5 PFPeA	94		25 - 150				07/29/24 11:09	08/09/24 09:49	1
13C2 PFHxA	91		25 - 150				07/29/24 11:09	08/09/24 09:49	1
13C4 PFHpA	99		25 - 150				07/29/24 11:09	08/09/24 09:49	1
13C4 PFOA	91		25 - 150				07/29/24 11:09	08/09/24 09:49	1
13C5 PFNA	88		25 - 150				07/29/24 11:09	08/09/24 09:49	1
13C2 PFDA	89		25 - 150				07/29/24 11:09	08/09/24 09:49	1
13C2 PFUnA	96		25 - 150				07/29/24 11:09	08/09/24 09:49	1
13C3 PFBS	100		25 - 150				07/29/24 11:09	08/09/24 09:49	1
18O2 PFHxS	86		25 - 150				07/29/24 11:09	08/09/24 09:49	1
13C4 PFOS	78		25 - 150				07/29/24 11:09	08/09/24 09:49	1
M2-4:2 FTS	112		25 - 150				07/29/24 11:09	08/09/24 09:49	1
M2-6:2 FTS	96		25 - 150				07/29/24 11:09	08/09/24 09:49	1
M2-8:2 FTS	88		25 - 150				07/29/24 11:09	08/09/24 09:49	1
13C2 10:2 FTS	234 *5+		25 - 150				07/29/24 11:09	08/09/24 09:49	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanesulfonic acid	390		30	2.5	ug/Kg	07/29/24 11:09	08/15/24 15:11		10
Br-Perfluorooctanesulfonic acid	240		30	2.5	ug/Kg	07/29/24 11:09	08/15/24 15:11		10
Total PFOS	630		30	2.5	ug/Kg	07/29/24 11:09	08/15/24 15:11		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	95		25 - 150				07/29/24 11:09	08/15/24 15:11	10

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: ArtNE2 02**

**Lab Sample ID: 320-113896-16**

Date Collected: 07/03/24 07:00

Matrix: Tissue

Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		20	4.7	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
Perfluoropentanoic acid (PFPeA)	ND		20	3.5	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
Perfluorohexanoic acid (PFHxA)	ND		20	5.5	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
Perfluoroheptanoic acid (PFHpA)	ND		20	2.3	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
L-Perfluoroctanoic acid	ND		20	4.0	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
Br-Perfluoroctanoic acid	ND		20	4.0	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
Total PFOA	ND		20	4.0	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
Perfluorononanoic acid (PFNA)	ND		20	3.5	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
Perfluorodecanoic acid (PFDA)	ND		20	2.1	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
Perfluoroundecanoic acid (PFUnA)	ND		20	5.4	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
Perfluorobutanesulfonic acid (PFBS)	ND		20	3.4	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
Perfluoropentanesulfonic acid (PFPeS)	ND		20	3.6	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>8.7 J</b>		20	3.0	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
<b>Total PFHxS</b>	<b>17 J</b>		20	3.0	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>8.7 J</b>		20	3.0	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		20	3.7	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>75</b>		50	4.1	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>22 J</b>		50	4.1	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
<b>Total PFOS</b>	<b>98</b>		50	4.1	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
4:2 FTS	ND		20	5.3	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
6:2 FTS	ND		20	8.5	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
8:2 FTS	ND		20	2.0	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
10:2 FTS	ND		20	2.0	ug/Kg	07/29/24 11:09	08/09/24 10:08		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	95		25 - 150			07/29/24 11:09	08/09/24 10:08		1
13C5 PFPeA	91		25 - 150			07/29/24 11:09	08/09/24 10:08		1
13C2 PFHxA	98		25 - 150			07/29/24 11:09	08/09/24 10:08		1
13C4 PFHpA	97		25 - 150			07/29/24 11:09	08/09/24 10:08		1
13C4 PFOA	96		25 - 150			07/29/24 11:09	08/09/24 10:08		1
13C5 PFNA	95		25 - 150			07/29/24 11:09	08/09/24 10:08		1
13C2 PFDA	95		25 - 150			07/29/24 11:09	08/09/24 10:08		1
13C2 PFUnA	92		25 - 150			07/29/24 11:09	08/09/24 10:08		1
13C3 PFBS	87		25 - 150			07/29/24 11:09	08/09/24 10:08		1
18O2 PFHxS	94		25 - 150			07/29/24 11:09	08/09/24 10:08		1
13C4 PFOS	93		25 - 150			07/29/24 11:09	08/09/24 10:08		1
M2-4:2 FTS	119		25 - 150			07/29/24 11:09	08/09/24 10:08		1
M2-6:2 FTS	109		25 - 150			07/29/24 11:09	08/09/24 10:08		1
M2-8:2 FTS	100		25 - 150			07/29/24 11:09	08/09/24 10:08		1
13C2 10:2 FTS	134		25 - 150			07/29/24 11:09	08/09/24 10:08		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: ArtNE2 03**

**Lab Sample ID: 320-113896-17**

Date Collected: 07/03/24 07:00

Matrix: Tissue

Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.81	0.19	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
Perfluoropentanoic acid (PFPeA)	ND		0.81	0.14	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
Perfluorohexanoic acid (PFHxA)	ND		0.81	0.22	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.52 J</b>		0.81	0.094	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
L-Perfluorooctanoic acid	1.7		0.81	0.16	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
Br-Perfluorooctanoic acid	0.16 J		0.81	0.16	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
<b>Total PFOA</b>	<b>1.8</b>		0.81	0.16	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.72 J</b>		0.81	0.14	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.13 J</b>		0.81	0.083	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
Perfluoroundecanoic acid (PFUnA)	ND		0.81	0.22	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.81	0.14	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.81	0.15	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
Br-Perfluorohexanesulfonic acid	0.37 J		0.81	0.12	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
<b>Total PFHxS</b>	<b>3.1</b>		0.81	0.12	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
L-Perfluorohexanesulfonic acid	2.7		0.81	0.12	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.25 J</b>		0.81	0.15	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
L-Perfluoroctanesulfonic acid	18		2.0	0.16	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
Br-Perfluoroctanesulfonic acid	7.4		2.0	0.16	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
<b>Total PFOS</b>	<b>25</b>		2.0	0.16	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
4:2 FTS	ND		0.81	0.21	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
<b>6:2 FTS</b>	<b>1.3</b>		0.81	0.34	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
8:2 FTS	ND		0.81	0.081	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
10:2 FTS	ND		0.81	0.081	ug/Kg	07/29/24 11:09	08/09/24 10:28		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	42		25 - 150			07/29/24 11:09	08/09/24 10:28		1
13C5 PFPeA	76		25 - 150			07/29/24 11:09	08/09/24 10:28		1
13C2 PFHxA	89		25 - 150			07/29/24 11:09	08/09/24 10:28		1
13C4 PFHpA	89		25 - 150			07/29/24 11:09	08/09/24 10:28		1
13C4 PFOA	87		25 - 150			07/29/24 11:09	08/09/24 10:28		1
13C5 PFNA	92		25 - 150			07/29/24 11:09	08/09/24 10:28		1
13C2 PFDA	114		25 - 150			07/29/24 11:09	08/09/24 10:28		1
13C2 PFUnA	121		25 - 150			07/29/24 11:09	08/09/24 10:28		1
13C3 PFBS	81		25 - 150			07/29/24 11:09	08/09/24 10:28		1
18O2 PFHxS	92		25 - 150			07/29/24 11:09	08/09/24 10:28		1
13C4 PFOS	90		25 - 150			07/29/24 11:09	08/09/24 10:28		1
M2-4:2 FTS	150		25 - 150			07/29/24 11:09	08/09/24 10:28		1
M2-6:2 FTS	131		25 - 150			07/29/24 11:09	08/09/24 10:28		1
M2-8:2 FTS	146		25 - 150			07/29/24 11:09	08/09/24 10:28		1
13C2 10:2 FTS	447 *5+		25 - 150			07/29/24 11:09	08/09/24 10:28		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: ArtNE2 04**  
Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-18**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		6.7	1.6	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
Perfluoropentanoic acid (PFPeA)	ND		6.7	1.2	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
Perfluorohexanoic acid (PFHxA)	ND		6.7	1.8	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
Perfluoroheptanoic acid (PFHpA)	ND		6.7	0.77	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
<b>L-Perfluorooctanoic acid</b>	<b>7.4</b>		6.7	1.3	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
<b>Br-Perfluorooctanoic acid</b>	<b>1.4 J</b>		6.7	1.3	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
<b>Total PFOA</b>	<b>8.8</b>		6.7	1.3	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>3.0 J</b>		6.7	1.2	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
Perfluorodecanoic acid (PFDA)	ND		6.7	0.69	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
Perfluoroundecanoic acid (PFUnA)	ND		6.7	1.8	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
Perfluorobutanesulfonic acid (PFBS)	ND		6.7	1.1	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
Perfluoropentanesulfonic acid (PFPeS)	ND		6.7	1.2	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
Br-Perfluorohexanesulfonic acid	ND		6.7	0.99	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
<b>Total PFHxS</b>	<b>8.2</b>		6.7	0.99	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>8.2</b>		6.7	0.99	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>2.5 J</b>		6.7	1.2	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
<b>L-Perfluorooctanesulfonic acid</b>	<b>110</b>		17	1.4	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
<b>Br-Perfluorooctanesulfonic acid</b>	<b>45</b>		17	1.4	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
<b>Total PFOS</b>	<b>150</b>		17	1.4	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
4:2 FTS	ND		6.7	1.8	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
6:2 FTS	ND		6.7	2.8	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
8:2 FTS	ND		6.7	0.67	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
10:2 FTS	ND		6.7	0.67	ug/Kg	07/29/24 11:09	08/09/24 14:21		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	99		25 - 150			07/29/24 11:09	08/09/24 14:21		1
13C5 PFPeA	104		25 - 150			07/29/24 11:09	08/09/24 14:21		1
13C2 PFHxA	100		25 - 150			07/29/24 11:09	08/09/24 14:21		1
13C4 PFHpA	93		25 - 150			07/29/24 11:09	08/09/24 14:21		1
13C4 PFOA	87		25 - 150			07/29/24 11:09	08/09/24 14:21		1
13C5 PFNA	95		25 - 150			07/29/24 11:09	08/09/24 14:21		1
13C2 PFDA	87		25 - 150			07/29/24 11:09	08/09/24 14:21		1
13C2 PFUnA	93		25 - 150			07/29/24 11:09	08/09/24 14:21		1
13C3 PFBS	94		25 - 150			07/29/24 11:09	08/09/24 14:21		1
18O2 PFHxS	93		25 - 150			07/29/24 11:09	08/09/24 14:21		1
13C4 PFOS	90		25 - 150			07/29/24 11:09	08/09/24 14:21		1
M2-4:2 FTS	108		25 - 150			07/29/24 11:09	08/09/24 14:21		1
M2-6:2 FTS	103		25 - 150			07/29/24 11:09	08/09/24 14:21		1
M2-8:2 FTS	89		25 - 150			07/29/24 11:09	08/09/24 14:21		1
13C2 10:2 FTS	132		25 - 150			07/29/24 11:09	08/09/24 14:21		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: ArtNE4 01**  
Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-19**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.2	0.28	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>1.1 J</b>		1.2	0.21	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.9</b>		1.2	0.32	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>1.8</b>		1.2	0.14	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
L-Perfluoroctanoic acid	6.7		1.2	0.24	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
Br-Perfluoroctanoic acid	0.58 J		1.2	0.24	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
<b>Total PFOA</b>	<b>7.3</b>		1.2	0.24	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>5.3</b>		1.2	0.21	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.64 J</b>		1.2	0.12	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
Perfluoroundecanoic acid (PFUnA)	ND		1.2	0.32	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.20 J</b>		1.2	0.20	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>0.67 J</b>		1.2	0.21	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
Br-Perfluorohexanesulfonic acid	4.3		1.2	0.17	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
<b>Total PFHxS</b>	<b>33</b>		1.2	0.17	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
L-Perfluorohexanesulfonic acid	29		1.2	0.17	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>6.4</b>		1.2	0.22	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
4:2 FTS	ND		1.2	0.31	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
<b>6:2 FTS</b>	<b>42</b>		1.2	0.50	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
<b>8:2 FTS</b>	<b>1.8</b>		1.2	0.12	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
10:2 FTS	ND		1.2	0.12	ug/Kg	07/29/24 11:09	08/09/24 14:40		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	92		25 - 150				07/29/24 11:09	08/09/24 14:40	1
13C5 PFPeA	91		25 - 150				07/29/24 11:09	08/09/24 14:40	1
13C2 PFHxA	92		25 - 150				07/29/24 11:09	08/09/24 14:40	1
13C4 PFHpA	92		25 - 150				07/29/24 11:09	08/09/24 14:40	1
13C4 PFOA	94		25 - 150				07/29/24 11:09	08/09/24 14:40	1
13C5 PFNA	93		25 - 150				07/29/24 11:09	08/09/24 14:40	1
13C2 PFDA	89		25 - 150				07/29/24 11:09	08/09/24 14:40	1
13C2 PFUnA	98		25 - 150				07/29/24 11:09	08/09/24 14:40	1
13C3 PFBS	96		25 - 150				07/29/24 11:09	08/09/24 14:40	1
18O2 PFHxS	91		25 - 150				07/29/24 11:09	08/09/24 14:40	1
13C4 PFOS	81		25 - 150				07/29/24 11:09	08/09/24 14:40	1
M2-4:2 FTS	97		25 - 150				07/29/24 11:09	08/09/24 14:40	1
M2-6:2 FTS	94		25 - 150				07/29/24 11:09	08/09/24 14:40	1
M2-8:2 FTS	93		25 - 150				07/29/24 11:09	08/09/24 14:40	1
13C2 10:2 FTS	89		25 - 150				07/29/24 11:09	08/09/24 14:40	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluoroctanesulfonic acid	320		29	2.4	ug/Kg	07/29/24 11:09	08/16/24 09:57		10
Br-Perfluoroctanesulfonic acid	180		29	2.4	ug/Kg	07/29/24 11:09	08/16/24 09:57		10
Total PFOS	500		29	2.4	ug/Kg	07/29/24 11:09	08/16/24 09:57		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	105		25 - 150				07/29/24 11:09	08/16/24 09:57	10

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: ArtNE4 02**

**Lab Sample ID: 320-113896-20**

Date Collected: 07/03/24 07:00

Matrix: Tissue

Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.3	0.55	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
Perfluoropentanoic acid (PFPeA)	ND		2.3	0.41	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
Perfluorohexanoic acid (PFHxA)	ND		2.3	0.63	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.84 J</b>		2.3	0.27	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
<b>L-Perfluoroctanoic acid</b>	<b>2.3</b>		2.3	0.47	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
Br-Perfluoroctanoic acid	ND		2.3	0.47	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
<b>Total PFOA</b>	<b>2.3</b>		2.3	0.47	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>1.3 J</b>		2.3	0.41	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
Perfluorodecanoic acid (PFDA)	ND		2.3	0.24	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
Perfluoroundecanoic acid (PFUnA)	ND		2.3	0.63	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
Perfluorobutanesulfonic acid (PFBS)	ND		2.3	0.40	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.3	0.42	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
Br-Perfluorohexanesulfonic acid	0.99 J		2.3	0.34	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
<b>Total PFHxS</b>	<b>7.7</b>		2.3	0.34	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>6.7</b>		2.3	0.34	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.81 J</b>		2.3	0.43	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>54</b>		5.8	0.47	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>29</b>		5.8	0.47	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
<b>Total PFOS</b>	<b>83</b>		5.8	0.47	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
4:2 FTS	ND		2.3	0.62	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
<b>6:2 FTS</b>	<b>1.5 J</b>		2.3	0.99	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
8:2 FTS	ND		2.3	0.23	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
10:2 FTS	ND		2.3	0.23	ug/Kg	07/29/24 11:09	08/09/24 15:00		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	112		25 - 150			07/29/24 11:09	08/09/24 15:00		1
13C5 PFPeA	107		25 - 150			07/29/24 11:09	08/09/24 15:00		1
13C2 PFHxA	103		25 - 150			07/29/24 11:09	08/09/24 15:00		1
13C4 PFHpA	105		25 - 150			07/29/24 11:09	08/09/24 15:00		1
13C4 PFOA	92		25 - 150			07/29/24 11:09	08/09/24 15:00		1
13C5 PFNA	96		25 - 150			07/29/24 11:09	08/09/24 15:00		1
13C2 PFDA	106		25 - 150			07/29/24 11:09	08/09/24 15:00		1
13C2 PFUnA	104		25 - 150			07/29/24 11:09	08/09/24 15:00		1
13C3 PFBS	97		25 - 150			07/29/24 11:09	08/09/24 15:00		1
18O2 PFHxS	109		25 - 150			07/29/24 11:09	08/09/24 15:00		1
13C4 PFOS	105		25 - 150			07/29/24 11:09	08/09/24 15:00		1
M2-4:2 FTS	94		25 - 150			07/29/24 11:09	08/09/24 15:00		1
M2-6:2 FTS	99		25 - 150			07/29/24 11:09	08/09/24 15:00		1
M2-8:2 FTS	96		25 - 150			07/29/24 11:09	08/09/24 15:00		1
13C2 10:2 FTS	142		25 - 150			07/29/24 11:09	08/09/24 15:00		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: ArtNE4 03**

**Lab Sample ID: 320-113896-21**

Date Collected: 05/16/24 07:00

Matrix: Tissue

Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0	0.94	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Perfluoropentanoic acid (PFPeA)	ND		4.0	0.70	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Perfluorohexanoic acid (PFHxA)	ND		4.0	1.1	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Perfluoroheptanoic acid (PFHpA)	ND		4.0	0.46	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
L-Perfluoroctanoic acid	ND		4.0	0.81	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Br-Perfluoroctanoic acid	ND		4.0	0.81	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Total PFOA	ND		4.0	0.81	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Perfluorononanoic acid (PFNA)	ND		4.0	0.70	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Perfluorodecanoic acid (PFDA)	ND		4.0	0.41	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Perfluoroundecanoic acid (PFUnA)	ND		4.0	1.1	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Perfluorobutanesulfonic acid (PFBS)	ND		4.0	0.68	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Perfluoropentanesulfonic acid (PFPeS)	ND		4.0	0.72	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Br-Perfluorohexanesulfonic acid	ND		4.0	0.59	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
<b>Total PFHxS</b>	<b>0.74 J</b>		4.0	0.59	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.74 J</b>		4.0	0.59	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		4.0	0.74	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>6.1 J</b>		10	0.81	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>2.7 J</b>		10	0.81	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
<b>Total PFOS</b>	<b>8.9 J</b>		10	0.81	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
4:2 FTS	ND		4.0	1.1	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
6:2 FTS	ND		4.0	1.7	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
8:2 FTS	ND		4.0	0.40	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
10:2 FTS	ND		4.0	0.40	ug/Kg	08/08/24 10:31	08/09/24 19:31		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	76		25 - 150			08/08/24 10:31	08/09/24 19:31		1
13C5 PFPeA	96		25 - 150			08/08/24 10:31	08/09/24 19:31		1
13C2 PFHxA	95		25 - 150			08/08/24 10:31	08/09/24 19:31		1
13C4 PFHpA	87		25 - 150			08/08/24 10:31	08/09/24 19:31		1
13C4 PFOA	92		25 - 150			08/08/24 10:31	08/09/24 19:31		1
13C5 PFNA	78		25 - 150			08/08/24 10:31	08/09/24 19:31		1
13C2 PFDA	89		25 - 150			08/08/24 10:31	08/09/24 19:31		1
13C2 PFUnA	86		25 - 150			08/08/24 10:31	08/09/24 19:31		1
13C3 PFBS	78		25 - 150			08/08/24 10:31	08/09/24 19:31		1
18O2 PFHxS	80		25 - 150			08/08/24 10:31	08/09/24 19:31		1
13C4 PFOS	78		25 - 150			08/08/24 10:31	08/09/24 19:31		1
M2-4:2 FTS	117		25 - 150			08/08/24 10:31	08/09/24 19:31		1
M2-6:2 FTS	94		25 - 150			08/08/24 10:31	08/09/24 19:31		1
M2-8:2 FTS	91		25 - 150			08/08/24 10:31	08/09/24 19:31		1
13C2 10:2 FTS	126		25 - 150			08/08/24 10:31	08/09/24 19:31		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: ArtNE4 04**

**Lab Sample ID: 320-113896-22**

Date Collected: 05/15/24 07:00

Matrix: Tissue

Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.0	J	3.4	0.81	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Perfluoropentanoic acid (PFPeA)	ND		3.4	0.60	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Perfluorohexanoic acid (PFHxA)	1.6	J	3.4	0.94	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Perfluoroheptanoic acid (PFHpA)	0.71	J	3.4	0.40	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
L-Perfluorooctanoic acid	10		3.4	0.70	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Br-Perfluoroctanoic acid	0.91	J	3.4	0.70	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Total PFOA	11		3.4	0.70	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Perfluorononanoic acid (PFNA)	6.6		3.4	0.60	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Perfluorodecanoic acid (PFDA)	0.39	J	3.4	0.36	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Perfluoroundecanoic acid (PFUnA)	ND		3.4	0.94	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Perfluorobutanesulfonic acid (PFBS)	ND		3.4	0.59	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Perfluoropentanesulfonic acid (PFPeS)	ND		3.4	0.62	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Br-Perfluorohexanesulfonic acid	2.0	J	3.4	0.51	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Total PFHxS	21		3.4	0.51	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
L-Perfluorohexanesulfonic acid	19		3.4	0.51	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Perfluoroheptanesulfonic acid (PFHpS)	3.5		3.4	0.64	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
L-Perfluoroctanesulfonic acid	160		8.6	0.70	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Br-Perfluoroctanesulfonic acid	75		8.6	0.70	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
Total PFOS	240		8.6	0.70	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
4:2 FTS	ND		3.4	0.92	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
6:2 FTS	ND		3.4	1.5	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
8:2 FTS	ND		3.4	0.34	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
10:2 FTS	ND		3.4	0.35	ug/Kg	08/08/24 10:31	08/09/24 19:51		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	40		25 - 150			08/08/24 10:31	08/09/24 19:51		1
13C5 PFPeA	72		25 - 150			08/08/24 10:31	08/09/24 19:51		1
13C2 PFHxA	86		25 - 150			08/08/24 10:31	08/09/24 19:51		1
13C4 PFHpA	89		25 - 150			08/08/24 10:31	08/09/24 19:51		1
13C4 PFOA	96		25 - 150			08/08/24 10:31	08/09/24 19:51		1
13C5 PFNA	91		25 - 150			08/08/24 10:31	08/09/24 19:51		1
13C2 PFDA	114		25 - 150			08/08/24 10:31	08/09/24 19:51		1
13C2 PFUnA	117		25 - 150			08/08/24 10:31	08/09/24 19:51		1
13C3 PFBS	71		25 - 150			08/08/24 10:31	08/09/24 19:51		1
18O2 PFHxS	87		25 - 150			08/08/24 10:31	08/09/24 19:51		1
13C4 PFOS	84		25 - 150			08/08/24 10:31	08/09/24 19:51		1
M2-4:2 FTS	219	*5+	25 - 150			08/08/24 10:31	08/09/24 19:51		1
M2-6:2 FTS	225	*5+	25 - 150			08/08/24 10:31	08/09/24 19:51		1
M2-8:2 FTS	260	*5+	25 - 150			08/08/24 10:31	08/09/24 19:51		1
13C2 10:2 FTS	445	*5+	25 - 150			08/08/24 10:31	08/09/24 19:51		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Client Sample ID: VDS 0 TEST

Date Collected: 07/17/24 00:00

Date Received: 07/18/24 09:20

## Lab Sample ID: 320-113896-23

Matrix: Water

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		310	150	ng/L	07/30/24 19:07	08/09/24 15:19		1
Perfluoropentanoic acid (PFPeA)	ND		130	31	ng/L	07/30/24 19:07	08/09/24 15:19		1
Perfluorohexanoic acid (PFHxA)	ND		130	36	ng/L	07/30/24 19:07	08/09/24 15:19		1
Perfluoroheptanoic acid (PFHpA)	ND		130	16	ng/L	07/30/24 19:07	08/09/24 15:19		1
L-Perfluoroctanoic acid	ND		130	53	ng/L	07/30/24 19:07	08/09/24 15:19		1
Br-Perfluoroctanoic acid	ND		130	53	ng/L	07/30/24 19:07	08/09/24 15:19		1
Total PFOA	ND		130	53	ng/L	07/30/24 19:07	08/09/24 15:19		1
Perfluorononanoic acid (PFNA)	ND		130	17	ng/L	07/30/24 19:07	08/09/24 15:19		1
Perfluorodecanoic acid (PFDA)	ND		130	19	ng/L	07/30/24 19:07	08/09/24 15:19		1
Perfluoroundecanoic acid (PFUnA)	ND		130	69	ng/L	07/30/24 19:07	08/09/24 15:19		1
Perfluorobutanesulfonic acid (PFBS)	ND		130	13	ng/L	07/30/24 19:07	08/09/24 15:19		1
Perfluoropentanesulfonic acid (PFPeS)	ND		130	19	ng/L	07/30/24 19:07	08/09/24 15:19		1
Br-Perfluorohexanesulfonic acid	ND		130	36	ng/L	07/30/24 19:07	08/09/24 15:19		1
Total PFHxS	ND		130	36	ng/L	07/30/24 19:07	08/09/24 15:19		1
L-Perfluorohexanesulfonic acid	ND		130	36	ng/L	07/30/24 19:07	08/09/24 15:19		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		130	12	ng/L	07/30/24 19:07	08/09/24 15:19		1
L-Perfluoroctanesulfonic acid	ND		130	34	ng/L	07/30/24 19:07	08/09/24 15:19		1
Br-Perfluoroctanesulfonic acid	ND		130	34	ng/L	07/30/24 19:07	08/09/24 15:19		1
Total PFOS	ND		130	34	ng/L	07/30/24 19:07	08/09/24 15:19		1
4:2 FTS	ND		130	15	ng/L	07/30/24 19:07	08/09/24 15:19		1
6:2 FTS	ND		310	160	ng/L	07/30/24 19:07	08/09/24 15:19		1
8:2 FTS	ND		130	29	ng/L	07/30/24 19:07	08/09/24 15:19		1
10:2 FTS	ND		130	42	ng/L	07/30/24 19:07	08/09/24 15:19		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	97		25 - 150			07/30/24 19:07	08/09/24 15:19		1
13C5 PFPeA	101		25 - 150			07/30/24 19:07	08/09/24 15:19		1
13C2 PFHxA	96		25 - 150			07/30/24 19:07	08/09/24 15:19		1
13C4 PFHpA	95		25 - 150			07/30/24 19:07	08/09/24 15:19		1
13C4 PFOA	101		25 - 150			07/30/24 19:07	08/09/24 15:19		1
13C5 PFNA	94		25 - 150			07/30/24 19:07	08/09/24 15:19		1
13C2 PFDA	95		25 - 150			07/30/24 19:07	08/09/24 15:19		1
13C2 PFUnA	97		25 - 150			07/30/24 19:07	08/09/24 15:19		1
13C3 PFBS	96		25 - 150			07/30/24 19:07	08/09/24 15:19		1
18O2 PFHxS	92		25 - 150			07/30/24 19:07	08/09/24 15:19		1
13C4 PFOS	93		25 - 150			07/30/24 19:07	08/09/24 15:19		1
M2-4:2 FTS	85		25 - 150			07/30/24 19:07	08/09/24 15:19		1
M2-6:2 FTS	88		25 - 150			07/30/24 19:07	08/09/24 15:19		1
M2-8:2 FTS	93		25 - 150			07/30/24 19:07	08/09/24 15:19		1
13C2 10:2 FTS	119		25 - 150			07/30/24 19:07	08/09/24 15:19		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284441**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-24**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.1	0.25	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
Perfluoropentanoic acid (PFPeA)	ND		1.1	0.19	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
Perfluorohexanoic acid (PFHxA)	ND		1.1	0.29	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
Perfluoroheptanoic acid (PFHpA)	ND		1.1	0.12	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
<b>L-Perfluoroctanoic acid</b>	<b>2.0</b>		1.1	0.21	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
Br-Perfluoroctanoic acid	ND		1.1	0.21	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
<b>Total PFOA</b>	<b>2.0</b>		1.1	0.21	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>8.8</b>		1.1	0.19	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>3.0</b>		1.1	0.11	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>1.4</b>		1.1	0.29	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.1	0.18	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.1	0.19	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>1.5</b>		1.1	0.16	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
<b>Total PFHxS</b>	<b>58</b>		1.1	0.16	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>56</b>		1.1	0.16	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>22</b>		1.1	0.20	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
4:2 FTS	ND		1.1	0.28	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
6:2 FTS	ND		1.1	0.45	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
<b>8:2 FTS</b>	<b>16</b>		1.1	0.11	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
<b>10:2 FTS</b>	<b>3.0</b>	<b>B</b>	1.1	0.11	ug/Kg	08/08/24 10:31	08/09/24 20:10		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	94		25 - 150				08/08/24 10:31	08/09/24 20:10	1
13C5 PFPeA	95		25 - 150				08/08/24 10:31	08/09/24 20:10	1
13C2 PFHxA	97		25 - 150				08/08/24 10:31	08/09/24 20:10	1
13C4 PFHpA	87		25 - 150				08/08/24 10:31	08/09/24 20:10	1
13C4 PFOA	87		25 - 150				08/08/24 10:31	08/09/24 20:10	1
13C5 PFNA	83		25 - 150				08/08/24 10:31	08/09/24 20:10	1
13C2 PFDA	97		25 - 150				08/08/24 10:31	08/09/24 20:10	1
13C2 PFUnA	112		25 - 150				08/08/24 10:31	08/09/24 20:10	1
13C3 PFBS	81		25 - 150				08/08/24 10:31	08/09/24 20:10	1
18O2 PFHxS	85		25 - 150				08/08/24 10:31	08/09/24 20:10	1
13C4 PFOS	63		25 - 150				08/08/24 10:31	08/09/24 20:10	1
M2-4:2 FTS	103		25 - 150				08/08/24 10:31	08/09/24 20:10	1
M2-6:2 FTS	110		25 - 150				08/08/24 10:31	08/09/24 20:10	1
M2-8:2 FTS	97		25 - 150				08/08/24 10:31	08/09/24 20:10	1
13C2 10:2 FTS	486 *5+		25 - 150				08/08/24 10:31	08/09/24 20:10	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluoroctanesulfonic acid</b>	<b>1600</b>		130	11	ug/Kg	08/08/24 10:31	08/12/24 20:19		50
<b>Br-Perfluoroctanesulfonic acid</b>	<b>370</b>		130	11	ug/Kg	08/08/24 10:31	08/12/24 20:19		50
<b>Total PFOS</b>	<b>2000</b>		130	11	ug/Kg	08/08/24 10:31	08/12/24 20:19		50
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	79		25 - 150				08/08/24 10:31	08/12/24 20:19	50

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284442**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-25**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.85	0.20	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
Perfluoropentanoic acid (PFPeA)	ND		0.85	0.15	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
Perfluorohexanoic acid (PFHxA)	ND		0.85	0.23	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.14 J</b>		0.85	0.098	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>L-Perfluorooctanoic acid</b>	<b>3.0</b>		0.85	0.17	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
Br-Perfluorooctanoic acid	ND		0.85	0.17	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>Total PFOA</b>	<b>3.0</b>		0.85	0.17	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>11</b>		0.85	0.15	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>2.6</b>		0.85	0.087	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>1.3</b>		0.85	0.23	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.85	0.14	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>0.15 J</b>		0.85	0.15	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>1.3</b>		0.85	0.13	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>Total PFHxS</b>	<b>60</b>		0.85	0.13	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>59</b>		0.85	0.13	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>14</b>		0.85	0.16	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
4:2 FTS	ND		0.85	0.23	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
6:2 FTS	ND		0.85	0.36	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>8:2 FTS</b>	<b>6.9</b>		0.85	0.085	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
<b>10:2 FTS</b>	<b>0.34 J B</b>		0.85	0.086	ug/Kg	08/08/24 10:31	08/09/24 20:30		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	82		25 - 150				08/08/24 10:31	08/09/24 20:30	1
13C5 PFPeA	86		25 - 150				08/08/24 10:31	08/09/24 20:30	1
13C2 PFHxA	96		25 - 150				08/08/24 10:31	08/09/24 20:30	1
13C4 PFHpA	94		25 - 150				08/08/24 10:31	08/09/24 20:30	1
13C4 PFOA	89		25 - 150				08/08/24 10:31	08/09/24 20:30	1
13C5 PFNA	91		25 - 150				08/08/24 10:31	08/09/24 20:30	1
13C2 PFDA	99		25 - 150				08/08/24 10:31	08/09/24 20:30	1
13C2 PFUnA	109		25 - 150				08/08/24 10:31	08/09/24 20:30	1
13C3 PFBS	77		25 - 150				08/08/24 10:31	08/09/24 20:30	1
18O2 PFHxS	84		25 - 150				08/08/24 10:31	08/09/24 20:30	1
13C4 PFOS	75		25 - 150				08/08/24 10:31	08/09/24 20:30	1
M2-4:2 FTS	130		25 - 150				08/08/24 10:31	08/09/24 20:30	1
M2-6:2 FTS	112		25 - 150				08/08/24 10:31	08/09/24 20:30	1
M2-8:2 FTS	104		25 - 150				08/08/24 10:31	08/09/24 20:30	1
13C2 10:2 FTS	566 *5+		25 - 150				08/08/24 10:31	08/09/24 20:30	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluorooctanesulfonic acid</b>	<b>470</b>		21	1.7	ug/Kg	08/08/24 10:31	08/12/24 20:58		10
<b>Br-Perfluorooctanesulfonic acid</b>	<b>130</b>		21	1.7	ug/Kg	08/08/24 10:31	08/12/24 20:58		10
<b>Total PFOS</b>	<b>590</b>		21	1.7	ug/Kg	08/08/24 10:31	08/12/24 20:58		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	91		25 - 150				08/08/24 10:31	08/12/24 20:58	10

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284443**

**Lab Sample ID: 320-113896-26**

Date Collected: 06/24/24 07:00

Matrix: Tissue

Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.14	J	0.50	0.12	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
Perfluoropentanoic acid (PFPeA)	ND		0.50	0.088	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
Perfluorohexanoic acid (PFHxA)	ND		0.50	0.14	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
Perfluoroheptanoic acid (PFHpA)	0.21	J	0.50	0.058	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
L-Perfluorooctanoic acid	14		0.50	0.10	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
Br-Perfluorooctanoic acid	0.47	J	0.50	0.10	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
Total PFOA	14		0.50	0.10	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
Perfluorononanoic acid (PFNA)	22		0.50	0.088	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
Perfluorodecanoic acid (PFDA)	2.3		0.50	0.052	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
Perfluoroundecanoic acid (PFUnA)	0.42	J	0.50	0.14	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.50	0.085	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
Perfluoropentanesulfonic acid (PFPeS)	0.72		0.50	0.091	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
Perfluoroheptanesulfonic acid (PFHpS)	36		0.50	0.093	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
4:2 FTS	ND		0.50	0.13	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
6:2 FTS	ND		0.50	0.21	ug/Kg	08/08/24 10:31	08/09/24 20:49		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	58		25 - 150				08/08/24 10:31	08/09/24 20:49	1
13C5 PFPeA	68		25 - 150				08/08/24 10:31	08/09/24 20:49	1
13C2 PFHxA	86		25 - 150				08/08/24 10:31	08/09/24 20:49	1
13C4 PFHpA	87		25 - 150				08/08/24 10:31	08/09/24 20:49	1
13C4 PFOA	83		25 - 150				08/08/24 10:31	08/09/24 20:49	1
13C5 PFNA	82		25 - 150				08/08/24 10:31	08/09/24 20:49	1
13C2 PFDA	115		25 - 150				08/08/24 10:31	08/09/24 20:49	1
13C2 PFUnA	125		25 - 150				08/08/24 10:31	08/09/24 20:49	1
13C3 PFBS	69		25 - 150				08/08/24 10:31	08/09/24 20:49	1
13C4 PFOS	65		25 - 150				08/08/24 10:31	08/09/24 20:49	1
M2-4:2 FTS	123		25 - 150				08/08/24 10:31	08/09/24 20:49	1
M2-6:2 FTS	129		25 - 150				08/08/24 10:31	08/09/24 20:49	1
M2-8:2 FTS	208 *5+		25 - 150				08/08/24 10:31	08/09/24 20:49	1
13C2 10:2 FTS	486 *5+		25 - 150				08/08/24 10:31	08/09/24 20:49	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	5.6	J	25	3.7	ug/Kg	08/08/24 10:31	08/12/24 21:17		50
Total PFHxS	380		25	3.7	ug/Kg	08/08/24 10:31	08/12/24 21:17		50
L-Perfluorohexanesulfonic acid	380		25	3.7	ug/Kg	08/08/24 10:31	08/12/24 21:17		50
L-Perfluorooctanesulfonic acid	690		63	5.1	ug/Kg	08/08/24 10:31	08/12/24 21:17		50
Br-Perfluorooctanesulfonic acid	210		63	5.1	ug/Kg	08/08/24 10:31	08/12/24 21:17		50
Total PFOS	890		63	5.1	ug/Kg	08/08/24 10:31	08/12/24 21:17		50
8:2 FTS	2.6	J	25	2.5	ug/Kg	08/08/24 10:31	08/12/24 21:17		50
10:2 FTS	ND		25	2.5	ug/Kg	08/08/24 10:31	08/12/24 21:17		50
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	84		25 - 150				08/08/24 10:31	08/12/24 21:17	50
13C4 PFOS	77		25 - 150				08/08/24 10:31	08/12/24 21:17	50

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284444**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-27**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.28	J	0.76	0.18	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Perfluoropentanoic acid (PFPeA)	ND		0.76	0.13	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Perfluorohexanoic acid (PFHxA)	ND		0.76	0.21	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Perfluoroheptanoic acid (PFHpA)	0.090	J	0.76	0.088	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
L-Perfluorooctanoic acid	1.6		0.76	0.15	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Br-Perfluorooctanoic acid	0.21	J	0.76	0.15	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Total PFOA	1.8		0.76	0.15	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Perfluorononanoic acid (PFNA)	4.6		0.76	0.13	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Perfluorodecanoic acid (PFDA)	1.7		0.76	0.078	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Perfluoroundecanoic acid (PFUnA)	0.80		0.76	0.21	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.76	0.13	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.76	0.14	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Br-Perfluorohexanesulfonic acid	0.82		0.76	0.11	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Total PFHxS	34		0.76	0.11	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
L-Perfluorohexanesulfonic acid	33		0.76	0.11	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Perfluoroheptanesulfonic acid (PFHpS)	8.7		0.76	0.14	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
4:2 FTS	ND		0.76	0.20	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
6:2 FTS	ND		0.76	0.32	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
8:2 FTS	4.3		0.76	0.076	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
10:2 FTS	0.67	J B	0.76	0.077	ug/Kg	08/08/24 10:31	08/09/24 21:08		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	81		25 - 150				08/08/24 10:31	08/09/24 21:08	1
13C5 PFPeA	80		25 - 150				08/08/24 10:31	08/09/24 21:08	1
13C2 PFHxA	92		25 - 150				08/08/24 10:31	08/09/24 21:08	1
13C4 PFHpA	87		25 - 150				08/08/24 10:31	08/09/24 21:08	1
13C4 PFOA	85		25 - 150				08/08/24 10:31	08/09/24 21:08	1
13C5 PFNA	86		25 - 150				08/08/24 10:31	08/09/24 21:08	1
13C2 PFDA	89		25 - 150				08/08/24 10:31	08/09/24 21:08	1
13C2 PFUnA	107		25 - 150				08/08/24 10:31	08/09/24 21:08	1
13C3 PFBS	79		25 - 150				08/08/24 10:31	08/09/24 21:08	1
18O2 PFHxS	77		25 - 150				08/08/24 10:31	08/09/24 21:08	1
13C4 PFOS	73		25 - 150				08/08/24 10:31	08/09/24 21:08	1
M2-4:2 FTS	104		25 - 150				08/08/24 10:31	08/09/24 21:08	1
M2-6:2 FTS	106		25 - 150				08/08/24 10:31	08/09/24 21:08	1
M2-8:2 FTS	98		25 - 150				08/08/24 10:31	08/09/24 21:08	1
13C2 10:2 FTS	460	*5+	25 - 150				08/08/24 10:31	08/09/24 21:08	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanesulfonic acid	510		19	1.5	ug/Kg	08/08/24 10:31	08/12/24 22:16		10
Br-Perfluorooctanesulfonic acid	120		19	1.5	ug/Kg	08/08/24 10:31	08/12/24 22:16		10
Total PFOS	640		19	1.5	ug/Kg	08/08/24 10:31	08/12/24 22:16		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	80		25 - 150				08/08/24 10:31	08/12/24 22:16	10

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284445**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-28**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.33	J	1.0	0.24	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Perfluoropentanoic acid (PFPeA)	0.19	J	1.0	0.18	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Perfluorohexanoic acid (PFHxA)	0.35	J	1.0	0.28	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Perfluoroheptanoic acid (PFHpA)	0.47	J	1.0	0.12	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
L-Perfluoroctanoic acid	6.4		1.0	0.21	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Br-Perfluoroctanoic acid	0.50	J	1.0	0.21	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Total PFOA	6.9		1.0	0.21	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Perfluorononanoic acid (PFNA)	6.6		1.0	0.18	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Perfluorodecanoic acid (PFDA)	2.1		1.0	0.11	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Perfluoroundecanoic acid (PFUnA)	0.86	J	1.0	0.28	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Perfluoropentanesulfonic acid (PFPeS)	0.56	J	1.0	0.18	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Br-Perfluorohexanesulfonic acid	3.0		1.0	0.15	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Total PFHxS	62		1.0	0.15	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
L-Perfluorohexanesulfonic acid	59		1.0	0.15	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Perfluoroheptanesulfonic acid (PFHpS)	13		1.0	0.19	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
4:2 FTS	ND		1.0	0.27	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
6:2 FTS	ND		1.0	0.43	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
<b>8:2 FTS</b>	<b>7.3</b>		1.0	0.10	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
<b>10:2 FTS</b>	<b>1.4</b>	B	1.0	0.10	ug/Kg	08/08/24 10:31	08/09/24 21:28		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	81		25 - 150				08/08/24 10:31	08/09/24 21:28	1
13C5 PFPeA	94		25 - 150				08/08/24 10:31	08/09/24 21:28	1
13C2 PFHxA	92		25 - 150				08/08/24 10:31	08/09/24 21:28	1
13C4 PFHpA	86		25 - 150				08/08/24 10:31	08/09/24 21:28	1
13C4 PFOA	89		25 - 150				08/08/24 10:31	08/09/24 21:28	1
13C5 PFNA	91		25 - 150				08/08/24 10:31	08/09/24 21:28	1
13C2 PFDA	92		25 - 150				08/08/24 10:31	08/09/24 21:28	1
13C2 PFUnA	104		25 - 150				08/08/24 10:31	08/09/24 21:28	1
13C3 PFBS	79		25 - 150				08/08/24 10:31	08/09/24 21:28	1
18O2 PFHxS	85		25 - 150				08/08/24 10:31	08/09/24 21:28	1
13C4 PFOS	70		25 - 150				08/08/24 10:31	08/09/24 21:28	1
M2-4:2 FTS	110		25 - 150				08/08/24 10:31	08/09/24 21:28	1
M2-6:2 FTS	96		25 - 150				08/08/24 10:31	08/09/24 21:28	1
M2-8:2 FTS	101		25 - 150				08/08/24 10:31	08/09/24 21:28	1
13C2 10:2 FTS	406	*5+	25 - 150				08/08/24 10:31	08/09/24 21:28	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluoroctanesulfonic acid	740		26	2.1	ug/Kg	08/08/24 10:31	08/14/24 09:51		10
Br-Perfluoroctanesulfonic acid	190		26	2.1	ug/Kg	08/08/24 10:31	08/14/24 09:51		10
Total PFOS	940		26	2.1	ug/Kg	08/08/24 10:31	08/14/24 09:51		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	97		25 - 150				08/08/24 10:31	08/14/24 09:51	10

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284446**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-29**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.50	J	0.70	0.17	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
Perfluoropentanoic acid (PFPeA)	0.31	J	0.70	0.12	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
Perfluorohexanoic acid (PFHxA)	0.68	J	0.70	0.19	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
Perfluoroheptanoic acid (PFHpA)	0.74		0.70	0.082	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
L-Perfluoroctanoic acid	8.1		0.70	0.14	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
Br-Perfluoroctanoic acid	0.51	J	0.70	0.14	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
Total PFOA	8.6		0.70	0.14	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
Perfluorononanoic acid (PFNA)	6.8		0.70	0.12	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
Perfluorodecanoic acid (PFDA)	2.4		0.70	0.073	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
Perfluoroundecanoic acid (PFUnA)	1.3		0.70	0.19	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.70	0.12	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
Perfluoropentanesulfonic acid (PFPeS)	0.37	J	0.70	0.13	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
Perfluoroheptanesulfonic acid (PFHpS)	18		0.70	0.13	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
4:2 FTS	ND		0.70	0.19	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
6:2 FTS	ND		0.70	0.30	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
<b>8:2 FTS</b>	<b>5.3</b>		0.70	0.070	ug/Kg	08/08/24 10:31	08/09/24 22:07		1
<b>10:2 FTS</b>	<b>1.2</b>	<b>B</b>	0.70	0.071	ug/Kg	08/08/24 10:31	08/09/24 22:07		1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	88		25 - 150	08/08/24 10:31	08/09/24 22:07	1
13C5 PFPeA	92		25 - 150	08/08/24 10:31	08/09/24 22:07	1
13C2 PFHxA	96		25 - 150	08/08/24 10:31	08/09/24 22:07	1
13C4 PFHpA	94		25 - 150	08/08/24 10:31	08/09/24 22:07	1
13C4 PFOA	91		25 - 150	08/08/24 10:31	08/09/24 22:07	1
13C5 PFNA	92		25 - 150	08/08/24 10:31	08/09/24 22:07	1
13C2 PFDA	100		25 - 150	08/08/24 10:31	08/09/24 22:07	1
13C2 PFUnA	114		25 - 150	08/08/24 10:31	08/09/24 22:07	1
13C3 PFBS	72		25 - 150	08/08/24 10:31	08/09/24 22:07	1
13C4 PFOS	66		25 - 150	08/08/24 10:31	08/09/24 22:07	1
M2-4:2 FTS	128		25 - 150	08/08/24 10:31	08/09/24 22:07	1
M2-6:2 FTS	126		25 - 150	08/08/24 10:31	08/09/24 22:07	1
M2-8:2 FTS	111		25 - 150	08/08/24 10:31	08/09/24 22:07	1
13C2 10:2 FTS	497 *5+		25 - 150	08/08/24 10:31	08/09/24 22:07	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	ND		35	5.2	ug/Kg	08/08/24 10:31	08/12/24 22:54		50
<b>Total PFHxS</b>	<b>84</b>		35	5.2	ug/Kg	08/08/24 10:31	08/12/24 22:54		50
L-Perfluorohexanesulfonic acid	84		35	5.2	ug/Kg	08/08/24 10:31	08/12/24 22:54		50
L-Perfluoroctanesulfonic acid	820		88	7.1	ug/Kg	08/08/24 10:31	08/12/24 22:54		50
Br-Perfluoroctanesulfonic acid	200		88	7.1	ug/Kg	08/08/24 10:31	08/12/24 22:54		50
<b>Total PFOS</b>	<b>1000</b>		88	7.1	ug/Kg	08/08/24 10:31	08/12/24 22:54		50

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	89		25 - 150	08/08/24 10:31	08/12/24 22:54	50
13C4 PFOS	96		25 - 150	08/08/24 10:31	08/12/24 22:54	50

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284447**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-30**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.1	0.27	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Perfluoropentanoic acid (PFPeA)	ND		1.1	0.20	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Perfluorohexanoic acid (PFHxA)	ND		1.1	0.31	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Perfluoroheptanoic acid (PFHpA)	ND		1.1	0.13	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
L-Perfluoroctanoic acid	ND		1.1	0.23	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Br-Perfluoroctanoic acid	ND		1.1	0.23	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Total PFOA	ND		1.1	0.23	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Perfluorononanoic acid (PFNA)	ND		1.1	0.20	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Perfluorodecanoic acid (PFDA)	ND		1.1	0.12	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Perfluoroundecanoic acid (PFUnA)	ND		1.1	0.31	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.1	0.19	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.1	0.21	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Br-Perfluorohexanesulfonic acid	ND		1.1	0.17	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
<b>Total PFHxS</b>	<b>0.92 J</b>		1.1	0.17	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.92 J</b>		1.1	0.17	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.1	0.21	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>7.9 I</b>		2.8	0.23	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>1.3 J</b>		2.8	0.23	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
<b>Total PFOS</b>	<b>9.2</b>		2.8	0.23	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
4:2 FTS	ND		1.1	0.30	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
6:2 FTS	ND		1.1	0.48	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
8:2 FTS	ND		1.1	0.11	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
10:2 FTS	ND		1.1	0.11	ug/Kg	08/08/24 10:31	08/09/24 22:26		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	77		25 - 150			08/08/24 10:31	08/09/24 22:26		1
13C5 PFPeA	95		25 - 150			08/08/24 10:31	08/09/24 22:26		1
13C2 PFHxA	104		25 - 150			08/08/24 10:31	08/09/24 22:26		1
13C4 PFHpA	90		25 - 150			08/08/24 10:31	08/09/24 22:26		1
13C4 PFOA	89		25 - 150			08/08/24 10:31	08/09/24 22:26		1
13C5 PFNA	88		25 - 150			08/08/24 10:31	08/09/24 22:26		1
13C2 PFDA	92		25 - 150			08/08/24 10:31	08/09/24 22:26		1
13C2 PFUnA	93		25 - 150			08/08/24 10:31	08/09/24 22:26		1
13C3 PFBS	78		25 - 150			08/08/24 10:31	08/09/24 22:26		1
18O2 PFHxS	76		25 - 150			08/08/24 10:31	08/09/24 22:26		1
13C4 PFOS	82		25 - 150			08/08/24 10:31	08/09/24 22:26		1
M2-4:2 FTS	97		25 - 150			08/08/24 10:31	08/09/24 22:26		1
M2-6:2 FTS	109		25 - 150			08/08/24 10:31	08/09/24 22:26		1
M2-8:2 FTS	92		25 - 150			08/08/24 10:31	08/09/24 22:26		1
13C2 10:2 FTS	414 *5+		25 - 150			08/08/24 10:31	08/09/24 22:26		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284448**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-31**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.56	0.13	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
Perfluoropentanoic acid (PFPeA)	ND		0.56	0.098	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
Perfluorohexanoic acid (PFHxA)	ND		0.56	0.15	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.41 J</b>		0.56	0.065	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
L-Perfluorooctanoic acid	3.8		0.56	0.11	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
Br-Perfluorooctanoic acid	0.21 J		0.56	0.11	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
<b>Total PFOA</b>	<b>4.0</b>		0.56	0.11	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>2.2</b>		0.56	0.098	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.21 J</b>		0.56	0.058	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
Perfluoroundecanoic acid (PFUnA)	ND		0.56	0.15	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.21 J</b>		0.56	0.096	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>1.2</b>		0.56	0.10	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
Br-Perfluorohexanesulfonic acid	3.1		0.56	0.083	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
<b>Total PFHxS</b>	<b>44</b>		0.56	0.083	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
L-Perfluorohexanesulfonic acid	40		0.56	0.083	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>2.8</b>		0.56	0.10	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
4:2 FTS	ND		0.56	0.15	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
<b>6:2 FTS</b>	<b>0.56</b>		0.56	0.24	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
<b>8:2 FTS</b>	<b>0.49 J</b>		0.56	0.056	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
<b>10:2 FTS</b>	<b>0.068 J B</b>		0.56	0.057	ug/Kg	08/08/24 10:31	08/09/24 22:45		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	61		25 - 150				08/08/24 10:31	08/09/24 22:45	1
13C5 PFPeA	75		25 - 150				08/08/24 10:31	08/09/24 22:45	1
13C2 PFHxA	85		25 - 150				08/08/24 10:31	08/09/24 22:45	1
13C4 PFHpA	89		25 - 150				08/08/24 10:31	08/09/24 22:45	1
13C4 PFOA	84		25 - 150				08/08/24 10:31	08/09/24 22:45	1
13C5 PFNA	85		25 - 150				08/08/24 10:31	08/09/24 22:45	1
13C2 PFDA	92		25 - 150				08/08/24 10:31	08/09/24 22:45	1
13C2 PFUnA	98		25 - 150				08/08/24 10:31	08/09/24 22:45	1
13C3 PFBS	70		25 - 150				08/08/24 10:31	08/09/24 22:45	1
18O2 PFHxS	81		25 - 150				08/08/24 10:31	08/09/24 22:45	1
13C4 PFOS	79		25 - 150				08/08/24 10:31	08/09/24 22:45	1
M2-4:2 FTS	145		25 - 150				08/08/24 10:31	08/09/24 22:45	1
M2-6:2 FTS	107		25 - 150				08/08/24 10:31	08/09/24 22:45	1
M2-8:2 FTS	97		25 - 150				08/08/24 10:31	08/09/24 22:45	1
13C2 10:2 FTS	438 *5+		25 - 150				08/08/24 10:31	08/09/24 22:45	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanesulfonic acid	130		14	1.1	ug/Kg	08/08/24 10:31	08/12/24 23:53		10
Br-Perfluorooctanesulfonic acid	35		14	1.1	ug/Kg	08/08/24 10:31	08/12/24 23:53		10
<b>Total PFOS</b>	<b>170</b>		14	1.1	ug/Kg	08/08/24 10:31	08/12/24 23:53		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	92		25 - 150				08/08/24 10:31	08/12/24 23:53	10

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284449**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-32**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.3	0.31	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
Perfluoropentanoic acid (PFPeA)	ND		1.3	0.23	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
Perfluorohexanoic acid (PFHxA)	ND		1.3	0.36	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.41</b>	<b>J</b>	1.3	0.15	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>L-Perfluorooctanoic acid</b>	<b>2.3</b>		1.3	0.27	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
Br-Perfluorooctanoic acid	ND		1.3	0.27	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>Total PFOA</b>	<b>2.3</b>		1.3	0.27	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>3.9</b>		1.3	0.23	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.1</b>	<b>J</b>	1.3	0.14	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>1.4</b>		1.3	0.36	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.3	0.22	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>0.31</b>	<b>J</b>	1.3	0.24	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>2.9</b>		1.3	0.19	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>Total PFHxS</b>	<b>84</b>		1.3	0.19	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>81</b>		1.3	0.19	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>6.6</b>		1.3	0.24	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
4:2 FTS	ND		1.3	0.35	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
6:2 FTS	ND		1.3	0.56	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>8:2 FTS</b>	<b>37</b>		1.3	0.13	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
<b>10:2 FTS</b>	<b>3.4</b>	<b>B</b>	1.3	0.13	ug/Kg	08/08/24 10:31	08/09/24 23:05		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	88		25 - 150				08/08/24 10:31	08/09/24 23:05	1
13C5 PFPeA	95		25 - 150				08/08/24 10:31	08/09/24 23:05	1
13C2 PFHxA	95		25 - 150				08/08/24 10:31	08/09/24 23:05	1
13C4 PFHpA	89		25 - 150				08/08/24 10:31	08/09/24 23:05	1
13C4 PFOA	90		25 - 150				08/08/24 10:31	08/09/24 23:05	1
13C5 PFNA	96		25 - 150				08/08/24 10:31	08/09/24 23:05	1
13C2 PFDA	101		25 - 150				08/08/24 10:31	08/09/24 23:05	1
13C2 PFUnA	96		25 - 150				08/08/24 10:31	08/09/24 23:05	1
13C3 PFBS	75		25 - 150				08/08/24 10:31	08/09/24 23:05	1
18O2 PFHxS	96		25 - 150				08/08/24 10:31	08/09/24 23:05	1
13C4 PFOS	78		25 - 150				08/08/24 10:31	08/09/24 23:05	1
M2-4:2 FTS	137		25 - 150				08/08/24 10:31	08/09/24 23:05	1
M2-6:2 FTS	132		25 - 150				08/08/24 10:31	08/09/24 23:05	1
M2-8:2 FTS	123		25 - 150				08/08/24 10:31	08/09/24 23:05	1
13C2 10:2 FTS	513	*5+	25 - 150				08/08/24 10:31	08/09/24 23:05	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluorooctanesulfonic acid</b>	<b>390</b>		33	2.7	ug/Kg	08/08/24 10:31	08/13/24 00:12		10
<b>Br-Perfluorooctanesulfonic acid</b>	<b>81</b>		33	2.7	ug/Kg	08/08/24 10:31	08/13/24 00:12		10
<b>Total PFOS</b>	<b>470</b>		33	2.7	ug/Kg	08/08/24 10:31	08/13/24 00:12		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	94		25 - 150				08/08/24 10:31	08/13/24 00:12	10

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284450**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-33**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.8	0.42	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.31	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
Perfluorohexanoic acid (PFHxA)	ND		1.8	0.49	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.25 J</b>		1.8	0.21	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
<b>L-Perfluoroctanoic acid</b>	<b>1.4 J</b>		1.8	0.36	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
Br-Perfluoroctanoic acid	ND		1.8	0.36	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
<b>Total PFOA</b>	<b>1.4 J</b>		1.8	0.36	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>2.8</b>		1.8	0.31	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.0 J</b>		1.8	0.18	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>1.2 J</b>		1.8	0.49	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.30	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.8	0.32	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>0.99 J</b>		1.8	0.26	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
<b>Total PFHxS</b>	<b>33</b>		1.8	0.26	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>32</b>		1.8	0.26	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>4.1</b>		1.8	0.33	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
4:2 FTS	ND		1.8	0.48	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
6:2 FTS	ND		1.8	0.76	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
<b>8:2 FTS</b>	<b>42</b>		1.8	0.18	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
<b>10:2 FTS</b>	<b>2.9 B</b>		1.8	0.18	ug/Kg	08/08/24 10:31	08/09/24 23:24		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	92		25 - 150				08/08/24 10:31	08/09/24 23:24	1
13C5 PFPeA	100		25 - 150				08/08/24 10:31	08/09/24 23:24	1
13C2 PFHxA	91		25 - 150				08/08/24 10:31	08/09/24 23:24	1
13C4 PFHpA	95		25 - 150				08/08/24 10:31	08/09/24 23:24	1
13C4 PFOA	87		25 - 150				08/08/24 10:31	08/09/24 23:24	1
13C5 PFNA	91		25 - 150				08/08/24 10:31	08/09/24 23:24	1
13C2 PFDA	89		25 - 150				08/08/24 10:31	08/09/24 23:24	1
13C2 PFUnA	100		25 - 150				08/08/24 10:31	08/09/24 23:24	1
13C3 PFBS	87		25 - 150				08/08/24 10:31	08/09/24 23:24	1
18O2 PFHxS	87		25 - 150				08/08/24 10:31	08/09/24 23:24	1
13C4 PFOS	86		25 - 150				08/08/24 10:31	08/09/24 23:24	1
M2-4:2 FTS	105		25 - 150				08/08/24 10:31	08/09/24 23:24	1
M2-6:2 FTS	113		25 - 150				08/08/24 10:31	08/09/24 23:24	1
M2-8:2 FTS	100		25 - 150				08/08/24 10:31	08/09/24 23:24	1
13C2 10:2 FTS	536 *5+		25 - 150				08/08/24 10:31	08/09/24 23:24	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluoroctanesulfonic acid</b>	<b>340</b>		89	7.3	ug/Kg	08/08/24 10:31	08/14/24 10:10		20
<b>Br-Perfluoroctanesulfonic acid</b>	<b>51 J</b>		89	7.3	ug/Kg	08/08/24 10:31	08/14/24 10:10		20
<b>Total PFOS</b>	<b>390</b>		89	7.3	ug/Kg	08/08/24 10:31	08/14/24 10:10		20
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	102		25 - 150				08/08/24 10:31	08/14/24 10:10	20

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284451**

**Lab Sample ID: 320-113896-34**

Date Collected: 06/24/24 07:00

Matrix: Tissue

Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.92	0.22	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
Perfluoropentanoic acid (PFPeA)	ND		0.92	0.16	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
Perfluorohexanoic acid (PFHxA)	ND		0.92	0.25	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.14 J</b>		0.92	0.11	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
<b>L-Perfluoroctanoic acid</b>	<b>0.86 J</b>		0.92	0.19	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
Br-Perfluoroctanoic acid	ND		0.92	0.19	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
<b>Total PFOA</b>	<b>0.86 J</b>		0.92	0.19	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>2.0</b>		0.92	0.16	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.69 J</b>		0.92	0.094	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.58 J</b>		0.92	0.25	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.92	0.16	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.92	0.17	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>0.80 J</b>		0.92	0.14	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
<b>Total PFHxS</b>	<b>31</b>		0.92	0.14	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>30</b>		0.92	0.14	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>3.6</b>		0.92	0.17	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
4:2 FTS	ND		0.92	0.24	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
6:2 FTS	ND		0.92	0.39	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
<b>8:2 FTS</b>	<b>12</b>		0.92	0.092	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
<b>10:2 FTS</b>	<b>1.9 B</b>		0.92	0.093	ug/Kg	08/08/24 10:31	08/09/24 23:44		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	99		25 - 150				08/08/24 10:31	08/09/24 23:44	1
13C5 PFPeA	108		25 - 150				08/08/24 10:31	08/09/24 23:44	1
13C2 PFHxA	112		25 - 150				08/08/24 10:31	08/09/24 23:44	1
13C4 PFHpA	107		25 - 150				08/08/24 10:31	08/09/24 23:44	1
13C4 PFOA	85		25 - 150				08/08/24 10:31	08/09/24 23:44	1
13C5 PFNA	97		25 - 150				08/08/24 10:31	08/09/24 23:44	1
13C2 PFDA	104		25 - 150				08/08/24 10:31	08/09/24 23:44	1
13C2 PFUnA	104		25 - 150				08/08/24 10:31	08/09/24 23:44	1
13C3 PFBS	94		25 - 150				08/08/24 10:31	08/09/24 23:44	1
18O2 PFHxS	97		25 - 150				08/08/24 10:31	08/09/24 23:44	1
13C4 PFOS	87		25 - 150				08/08/24 10:31	08/09/24 23:44	1
M2-4:2 FTS	130		25 - 150				08/08/24 10:31	08/09/24 23:44	1
M2-6:2 FTS	123		25 - 150				08/08/24 10:31	08/09/24 23:44	1
M2-8:2 FTS	120		25 - 150				08/08/24 10:31	08/09/24 23:44	1
13C2 10:2 FTS	558 *5+		25 - 150				08/08/24 10:31	08/09/24 23:44	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluoroctanesulfonic acid</b>	<b>350</b>		46	3.7	ug/Kg	08/08/24 10:31	08/14/24 10:30		20
<b>Br-Perfluoroctanesulfonic acid</b>	<b>55</b>		46	3.7	ug/Kg	08/08/24 10:31	08/14/24 10:30		20
<b>Total PFOS</b>	<b>400</b>		46	3.7	ug/Kg	08/08/24 10:31	08/14/24 10:30		20
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	93		25 - 150				08/08/24 10:31	08/14/24 10:30	20

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284439**  
Date Collected: 07/11/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-35**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.9		0.98	0.23	ug/Kg	08/08/24 10:31	08/10/24 00:03		1
Perfluoropentanoic acid (PFPeA)	4.1		0.98	0.17	ug/Kg	08/08/24 10:31	08/10/24 00:03		1
Perfluorohexanoic acid (PFHxA)	32		0.98	0.27	ug/Kg	08/08/24 10:31	08/10/24 00:03		1
Perfluoroheptanoic acid (PFHpA)	24		0.98	0.11	ug/Kg	08/08/24 10:31	08/10/24 00:03		1
Perfluorodecanoic acid (PFDA)	32		0.98	0.10	ug/Kg	08/08/24 10:31	08/10/24 00:03		1
Perfluoroundecanoic acid (PFUnA)	4.4		0.98	0.27	ug/Kg	08/08/24 10:31	08/10/24 00:03		1
Perfluorobutanesulfonic acid (PFBS)	2.6		0.98	0.17	ug/Kg	08/08/24 10:31	08/10/24 00:03		1
Perfluoropentanesulfonic acid (PFPeS)	32		0.98	0.18	ug/Kg	08/08/24 10:31	08/10/24 00:03		1
4:2 FTS	ND		0.98	0.26	ug/Kg	08/08/24 10:31	08/10/24 00:03		1
6:2 FTS	20		0.98	0.42	ug/Kg	08/08/24 10:31	08/10/24 00:03		1
8:2 FTS	86		0.98	0.098	ug/Kg	08/08/24 10:31	08/10/24 00:03		1
10:2 FTS	1.6	B	0.98	0.099	ug/Kg	08/08/24 10:31	08/10/24 00:03		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	63		25 - 150				08/08/24 10:31	08/10/24 00:03	1
13C5 PFPeA	86		25 - 150				08/08/24 10:31	08/10/24 00:03	1
13C2 PFHxA	105		25 - 150				08/08/24 10:31	08/10/24 00:03	1
13C4 PFHpA	98		25 - 150				08/08/24 10:31	08/10/24 00:03	1
13C2 PFDA	110		25 - 150				08/08/24 10:31	08/10/24 00:03	1
13C2 PFUnA	125		25 - 150				08/08/24 10:31	08/10/24 00:03	1
13C3 PFBS	90		25 - 150				08/08/24 10:31	08/10/24 00:03	1
M2-4:2 FTS	220	*5+	25 - 150				08/08/24 10:31	08/10/24 00:03	1
M2-6:2 FTS	177	*5+	25 - 150				08/08/24 10:31	08/10/24 00:03	1
M2-8:2 FTS	172	*5+	25 - 150				08/08/24 10:31	08/10/24 00:03	1
13C2 10:2 FTS	425	*5+	25 - 150				08/08/24 10:31	08/10/24 00:03	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanoic acid	310		98	20	ug/Kg	08/08/24 10:31	08/13/24 01:30		100
Br-Perfluorooctanoic acid	ND		98	20	ug/Kg	08/08/24 10:31	08/13/24 01:30		100
Total PFOA	310		98	20	ug/Kg	08/08/24 10:31	08/13/24 01:30		100
Perfluorononanoic acid (PFNA)	300		98	17	ug/Kg	08/08/24 10:31	08/13/24 01:30		100
Br-Perfluorohexanesulfonic acid	210		98	15	ug/Kg	08/08/24 10:31	08/13/24 01:30		100
Total PFHxS	3600		98	15	ug/Kg	08/08/24 10:31	08/13/24 01:30		100
L-Perfluorohexanesulfonic acid	3400		98	15	ug/Kg	08/08/24 10:31	08/13/24 01:30		100
Perfluoroheptanesulfonic acid (PFHpS)	790		98	18	ug/Kg	08/08/24 10:31	08/13/24 01:30		100
L-Perfluoroctanesulfonic acid	32000	E	250	20	ug/Kg	08/08/24 10:31	08/13/24 01:30		100
Br-Perfluoroctanesulfonic acid	16000	E	250	20	ug/Kg	08/08/24 10:31	08/13/24 01:30		100
Total PFOS	48000		250	20	ug/Kg	08/08/24 10:31	08/13/24 01:30		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOA	91		25 - 150				08/08/24 10:31	08/13/24 01:30	100
13C5 PFNA	91		25 - 150				08/08/24 10:31	08/13/24 01:30	100
18O2 PFHxS	100		25 - 150				08/08/24 10:31	08/13/24 01:30	100
13C4 PFOS	75		25 - 150				08/08/24 10:31	08/13/24 01:30	100

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284452**  
Date Collected: 07/16/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-36**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.97	0.23	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
Perfluoropentanoic acid (PFPeA)	ND		0.97	0.17	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
Perfluorohexanoic acid (PFHxA)	ND		0.97	0.27	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
Perfluoroheptanoic acid (PFHpA)	ND		0.97	0.11	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
<b>L-Perfluoroctanoic acid</b>	<b>11</b>		0.97	0.20	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
<b>Br-Perfluoroctanoic acid</b>	<b>0.23 J</b>		0.97	0.20	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
<b>Total PFOA</b>	<b>12</b>		0.97	0.20	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>13</b>		0.97	0.17	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>5.7</b>		0.97	0.10	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>4.1</b>		0.97	0.26	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.97	0.17	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>1.1</b>		0.97	0.18	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>21</b>		0.97	0.18	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
4:2 FTS	ND		0.97	0.26	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
<b>6:2 FTS</b>	<b>2.0</b>		0.97	0.41	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
<b>10:2 FTS</b>	<b>2.4 B</b>		0.97	0.098	ug/Kg	08/08/24 10:31	08/10/24 00:22		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	51		25 - 150			08/08/24 10:31	08/10/24 00:22		1
13C5 PFPeA	60		25 - 150			08/08/24 10:31	08/10/24 00:22		1
13C2 PFHxA	74		25 - 150			08/08/24 10:31	08/10/24 00:22		1
13C4 PFHpA	73		25 - 150			08/08/24 10:31	08/10/24 00:22		1
13C4 PFOA	85		25 - 150			08/08/24 10:31	08/10/24 00:22		1
13C5 PFNA	76		25 - 150			08/08/24 10:31	08/10/24 00:22		1
13C2 PFDA	103		25 - 150			08/08/24 10:31	08/10/24 00:22		1
13C2 PFUnA	98		25 - 150			08/08/24 10:31	08/10/24 00:22		1
13C3 PFBS	63		25 - 150			08/08/24 10:31	08/10/24 00:22		1
18O2 PFHxS	74		25 - 150			08/08/24 10:31	08/10/24 00:22		1
13C4 PFOS	65		25 - 150			08/08/24 10:31	08/10/24 00:22		1
M2-4:2 FTS	155 *5+		25 - 150			08/08/24 10:31	08/10/24 00:22		1
M2-6:2 FTS	186 *5+		25 - 150			08/08/24 10:31	08/10/24 00:22		1
13C2 10:2 FTS	392 *5+		25 - 150			08/08/24 10:31	08/10/24 00:22		1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Br-Perfluorohexanesulfonic acid</b>	<b>7.3 J</b>		49	7.2	ug/Kg	08/08/24 10:31	08/13/24 02:28		50
<b>Total PFHxS</b>	<b>200</b>		49	7.2	ug/Kg	08/08/24 10:31	08/13/24 02:28		50
<b>L-Perfluorohexanesulfonic acid</b>	<b>200</b>		49	7.2	ug/Kg	08/08/24 10:31	08/13/24 02:28		50
<b>L-Perfluoroctanesulfonic acid</b>	<b>1300</b>		120	9.9	ug/Kg	08/08/24 10:31	08/13/24 02:28		50
<b>Br-Perfluoroctanesulfonic acid</b>	<b>210</b>		120	9.9	ug/Kg	08/08/24 10:31	08/13/24 02:28		50
<b>Total PFOS</b>	<b>1500</b>		120	9.9	ug/Kg	08/08/24 10:31	08/13/24 02:28		50
<b>8:2 FTS</b>	<b>49</b>		49	4.9	ug/Kg	08/08/24 10:31	08/13/24 02:28		50
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
18O2 PFHxS	79		25 - 150			08/08/24 10:31	08/13/24 02:28		50
13C4 PFOS	88		25 - 150			08/08/24 10:31	08/13/24 02:28		50
M2-8:2 FTS	95		25 - 150			08/08/24 10:31	08/13/24 02:28		50

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284442 V24-20096 liver**

**Lab Sample ID: 320-113896-37**

**Matrix: Tissue**

Date Collected: 06/24/24 00:00  
Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.1	0.26	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
Perfluoropentanoic acid (PFPeA)	ND		1.1	0.19	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
Perfluorohexanoic acid (PFHxA)	ND		1.1	0.30	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.44 J</b>		1.1	0.13	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
<b>L-Perfluorooctanoic acid</b>	<b>15</b>		1.1	0.22	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
<b>Br-Perfluorooctanoic acid</b>	<b>0.48 J</b>		1.1	0.22	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
<b>Total PFOA</b>	<b>15</b>		1.1	0.22	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>73</b>		1.1	0.19	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>19</b>		1.1	0.11	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>8.0</b>		1.1	0.30	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.1	0.19	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>0.67 J</b>		1.1	0.20	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
4:2 FTS	ND		1.1	0.29	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
6:2 FTS	ND		1.1	0.47	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
<b>8:2 FTS</b>	<b>51</b>		1.1	0.11	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
<b>10:2 FTS</b>	<b>1.5 B</b>		1.1	0.11	ug/Kg	08/08/24 10:31	08/10/24 00:42		1
Isotope Dilution	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
13C4 PFBA	59		25 - 150			08/08/24 10:31	08/10/24 00:42		1
13C5 PFPeA	93		25 - 150			08/08/24 10:31	08/10/24 00:42		1
13C2 PFHxA	96		25 - 150			08/08/24 10:31	08/10/24 00:42		1
13C4 PFHpA	97		25 - 150			08/08/24 10:31	08/10/24 00:42		1
13C4 PFOA	83		25 - 150			08/08/24 10:31	08/10/24 00:42		1
13C5 PFNA	36		25 - 150			08/08/24 10:31	08/10/24 00:42		1
13C2 PFDA	103		25 - 150			08/08/24 10:31	08/10/24 00:42		1
13C2 PFUnA	124		25 - 150			08/08/24 10:31	08/10/24 00:42		1
13C3 PFBS	79		25 - 150			08/08/24 10:31	08/10/24 00:42		1
13C4 PFOS	52		25 - 150			08/08/24 10:31	08/10/24 00:42		1
M2-4:2 FTS	193 *5+		25 - 150			08/08/24 10:31	08/10/24 00:42		1
M2-6:2 FTS	87		25 - 150			08/08/24 10:31	08/10/24 00:42		1
M2-8:2 FTS	129		25 - 150			08/08/24 10:31	08/10/24 00:42		1
13C2 10:2 FTS	452 *5+		25 - 150			08/08/24 10:31	08/10/24 00:42		1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	ND		55	8.1	ug/Kg	08/08/24 10:31	08/13/24 03:07		50
<b>Total PFHxS</b>	<b>220</b>		55	8.1	ug/Kg	08/08/24 10:31	08/13/24 03:07		50
<b>L-Perfluorohexanesulfonic acid</b>	<b>220</b>		55	8.1	ug/Kg	08/08/24 10:31	08/13/24 03:07		50
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>71</b>		55	10	ug/Kg	08/08/24 10:31	08/13/24 03:07		50
<b>L-Perfluoroctanesulfonic acid</b>	<b>5100 E</b>		140	11	ug/Kg	08/08/24 10:31	08/13/24 03:07		50
<b>Br-Perfluoroctanesulfonic acid</b>	<b>1200</b>		140	11	ug/Kg	08/08/24 10:31	08/13/24 03:07		50
<b>Total PFOS</b>	<b>6300</b>		140	11	ug/Kg	08/08/24 10:31	08/13/24 03:07		50
Isotope Dilution	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
18O2 PFHxS	91		25 - 150			08/08/24 10:31	08/13/24 03:07		50
13C4 PFOS	82		25 - 150			08/08/24 10:31	08/13/24 03:07		50

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284443 V24-20097 liver**

**Lab Sample ID: 320-113896-38**

**Matrix: Tissue**

Date Collected: 06/24/24 07:00

Date Received: 07/18/24 09:20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.93	0.22	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
Perfluoropentanoic acid (PFPeA)	ND		0.93	0.16	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
Perfluorohexanoic acid (PFHxA)	ND		0.93	0.25	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.17 J</b>		0.93	0.11	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
<b>L-Perfluorooctanoic acid</b>	<b>18</b>		0.93	0.19	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
<b>Br-Perfluorooctanoic acid</b>	<b>0.60 J</b>		0.93	0.19	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
<b>Total PFOA</b>	<b>19</b>		0.93	0.19	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>39</b>		0.93	0.16	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>4.8</b>		0.93	0.095	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.90 J</b>		0.93	0.25	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.93	0.16	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>0.79 J</b>		0.93	0.17	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>54</b>		0.93	0.17	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
4:2 FTS	ND		0.93	0.25	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
<b>6:2 FTS</b>	<b>4.8</b>		0.93	0.39	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
<b>8:2 FTS</b>	<b>5.1</b>		0.93	0.093	ug/Kg	08/08/24 10:31	08/10/24 01:01		1
<b>10:2 FTS</b>	<b>0.19 J B</b>		0.93	0.094	ug/Kg	08/08/24 10:31	08/10/24 01:01		1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	42		25 - 150	08/08/24 10:31	08/10/24 01:01	1
13C5 PFPeA	67		25 - 150	08/08/24 10:31	08/10/24 01:01	1
13C2 PFHxA	79		25 - 150	08/08/24 10:31	08/10/24 01:01	1
13C4 PFHpA	81		25 - 150	08/08/24 10:31	08/10/24 01:01	1
13C4 PFOA	84		25 - 150	08/08/24 10:31	08/10/24 01:01	1
13C5 PFNA	76		25 - 150	08/08/24 10:31	08/10/24 01:01	1
13C2 PFDA	99		25 - 150	08/08/24 10:31	08/10/24 01:01	1
13C2 PFUnA	117		25 - 150	08/08/24 10:31	08/10/24 01:01	1
13C3 PFBS	74		25 - 150	08/08/24 10:31	08/10/24 01:01	1
13C4 PFOS	62		25 - 150	08/08/24 10:31	08/10/24 01:01	1
M2-4:2 FTS	173 *5+		25 - 150	08/08/24 10:31	08/10/24 01:01	1
M2-6:2 FTS	172 *5+		25 - 150	08/08/24 10:31	08/10/24 01:01	1
M2-8:2 FTS	265 *5+		25 - 150	08/08/24 10:31	08/10/24 01:01	1
13C2 10:2 FTS	433 *5+		25 - 150	08/08/24 10:31	08/10/24 01:01	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Br-Perfluorohexanesulfonic acid</b>	<b>6.9 J</b>		46	6.9	ug/Kg	08/08/24 10:31	08/13/24 03:46		50
<b>Total PFHxS</b>	<b>410</b>		46	6.9	ug/Kg	08/08/24 10:31	08/13/24 03:46		50
<b>L-Perfluorohexanesulfonic acid</b>	<b>400</b>		46	6.9	ug/Kg	08/08/24 10:31	08/13/24 03:46		50
<b>L-Perfluorooctanesulfonic acid</b>	<b>1800</b>		120	9.4	ug/Kg	08/08/24 10:31	08/13/24 03:46		50
<b>Br-Perfluorooctanesulfonic acid</b>	<b>380</b>		120	9.4	ug/Kg	08/08/24 10:31	08/13/24 03:46		50
<b>Total PFOS</b>	<b>2200</b>		120	9.4	ug/Kg	08/08/24 10:31	08/13/24 03:46		50

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	92		25 - 150	08/08/24 10:31	08/13/24 03:46	50

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284444 V24-20103 liver**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-39**  
Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1	0.74	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
Perfluoropentanoic acid (PFPeA)	ND		3.1	0.55	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
Perfluorohexanoic acid (PFHxA)	ND		3.1	0.85	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
Perfluoroheptanoic acid (PFHpA)	ND		3.1	0.36	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
<b>L-Perfluoroctanoic acid</b>	<b>8.9</b>		3.1	0.63	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
<b>Br-Perfluoroctanoic acid</b>	<b>1.5 J</b>		3.1	0.63	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
<b>Total PFOA</b>	<b>10</b>		3.1	0.63	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>33</b>		3.1	0.55	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>11</b>		3.1	0.32	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>4.5</b>		3.1	0.85	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
Perfluorobutanesulfonic acid (PFBS)	ND		3.1	0.53	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
Perfluoropentanesulfonic acid (PFPeS)	ND		3.1	0.57	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>5.7</b>		3.1	0.46	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
<b>Total PFHxS</b>	<b>170</b>		3.1	0.46	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>170</b>		3.1	0.46	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>60</b>		3.1	0.58	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
4:2 FTS	ND		3.1	0.83	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
6:2 FTS	ND		3.1	1.3	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
<b>8:2 FTS</b>	<b>29</b>		3.1	0.31	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
<b>10:2 FTS</b>	<b>3.5 B</b>		3.1	0.32	ug/Kg	08/08/24 10:31	08/10/24 01:40		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	148		25 - 150				08/08/24 10:31	08/10/24 01:40	1
13C5 PFPeA	155 *5+		25 - 150				08/08/24 10:31	08/10/24 01:40	1
13C2 PFHxA	145		25 - 150				08/08/24 10:31	08/10/24 01:40	1
13C4 PFHpA	150		25 - 150				08/08/24 10:31	08/10/24 01:40	1
13C4 PFOA	89		25 - 150				08/08/24 10:31	08/10/24 01:40	1
13C5 PFNA	121		25 - 150				08/08/24 10:31	08/10/24 01:40	1
13C2 PFDA	146		25 - 150				08/08/24 10:31	08/10/24 01:40	1
13C2 PFUnA	168 *5+		25 - 150				08/08/24 10:31	08/10/24 01:40	1
13C3 PFBS	137		25 - 150				08/08/24 10:31	08/10/24 01:40	1
18O2 PFHxS	136		25 - 150				08/08/24 10:31	08/10/24 01:40	1
13C4 PFOS	111		25 - 150				08/08/24 10:31	08/10/24 01:40	1
M2-4:2 FTS	231 *5+		25 - 150				08/08/24 10:31	08/10/24 01:40	1
M2-6:2 FTS	152 *5+		25 - 150				08/08/24 10:31	08/10/24 01:40	1
M2-8:2 FTS	168 *5+		25 - 150				08/08/24 10:31	08/10/24 01:40	1
13C2 10:2 FTS	579 *5+		25 - 150				08/08/24 10:31	08/10/24 01:40	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluoroctanesulfonic acid</b>	<b>4500</b>		390	32	ug/Kg	08/08/24 10:31	08/13/24 04:24		50
<b>Br-Perfluoroctanesulfonic acid</b>	<b>890</b>		390	32	ug/Kg	08/08/24 10:31	08/13/24 04:24		50
<b>Total PFOS</b>	<b>5400</b>		390	32	ug/Kg	08/08/24 10:31	08/13/24 04:24		50
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	88		25 - 150				08/08/24 10:31	08/13/24 04:24	50

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# Isotope Dilution Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-113896-1	NK311140 liver	47	64	73	82	79	60	91	98
320-113896-1 - DL	NK311140 liver								
320-113896-2	NK311141 liver	25	56	80	90	82	58	100	110
320-113896-2 - DL	NK311141 liver								
320-113896-3	NK311142 liver	90	91	97	95	95	92	98	112
320-113896-3 - DL	NK311142 liver								
320-113896-4	NK311143 liver	57	86	91	95	87	99	96	95
320-113896-5	NK311145 liver	38	73	82	87	84	53	94	116
320-113896-5 - DL	NK311145 liver								
320-113896-6	NK311145 femur	84	91	86	81	94	82	88	90
320-113896-6 - DL	NK311145 femur								
320-113896-7	NK311146 liver	36	72	89	97	86		108	117
320-113896-7 - DL	NK311146 liver						83		
320-113896-8	NK311146 femur	82	86	88	88	92	85	106	104
320-113896-8 - DL	NK311146 femur								
320-113896-9	NK311129 liver	79	87	96	85	87	93	98	99
320-113896-9 - DL	NK311129 liver								
320-113896-10	NK311131 liver	84	108	103	94	91	90	99	100
320-113896-10 - DL	NK311131 liver								
320-113896-11	NK311133 liver	74	89	97	97	90	98	94	91
320-113896-11 - DL	NK311133 liver								
320-113896-12	NK319511 muscle	59	79	84	81	88	30	108	93
320-113896-13	NK319092 liver	53	84	85	88	87	97	111	106
320-113896-14	Velvet ant NE2 03	92	96	100	91	92	93	91	87
320-113896-15	ArtNE2 01	84	94	91	99	91	88	89	96
320-113896-15 - DL	ArtNE2 01								
320-113896-16	ArtNE2 02	95	91	98	97	96	95	95	92
320-113896-17	ArtNE2 03	42	76	89	89	87	92	114	121
320-113896-18	ArtNE2 04	99	104	100	93	87	95	87	93
320-113896-19	ArtNE4 01	92	91	92	92	94	93	89	98
320-113896-19 - DL	ArtNE4 01								
320-113896-20	ArtNE4 02	112	107	103	105	92	96	106	104
320-113896-21	ArtNE4 03	76	96	95	87	92	78	89	86
320-113896-22	ArtNE4 04	40	72	86	89	96	91	114	117
320-113896-24	NK284441	94	95	97	87	87	83	97	112
320-113896-24 - DL	NK284441								
320-113896-25	NK284442	82	86	96	94	89	91	99	109
320-113896-25 - DL	NK284442								
320-113896-26	NK284443	58	68	86	87	83	82	115	125
320-113896-26 - DL	NK284443								
320-113896-27	NK284444	81	80	92	87	85	86	89	107
320-113896-27 - DL	NK284444								
320-113896-28	NK284445	81	94	92	86	89	91	92	104
320-113896-28 - DL	NK284445								
320-113896-29	NK284446	88	92	96	94	91	92	100	114
320-113896-29 - DL	NK284446								
320-113896-30	NK284447	77	95	104	90	89	88	92	93
320-113896-31	NK284448	61	75	85	89	84	85	92	98
320-113896-31 - DL	NK284448								

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# Isotope Dilution Summary

Client: University of New Mexico

Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-113896-32	NK284449	88	95	95	89	90	96	101	96
320-113896-32 - DL	NK284449								
320-113896-33	NK284450	92	100	91	95	87	91	89	100
320-113896-33 - DL	NK284450								
320-113896-34	NK284451	99	108	112	107	85	97	104	104
320-113896-34 - DL	NK284451								
320-113896-35	NK284439	63	86	105	98			110	125
320-113896-35 - DL	NK284439					91	91		
320-113896-36	NK284452	51	60	74	73	85	76	103	98
320-113896-36 - DL	NK284452								
320-113896-37	NK284442 V24-20096 liver	59	93	96	97	83	36	103	124
320-113896-37 - DL	NK284442 V24-20096 liver								
320-113896-38	NK284443 V24-20097 liver	42	67	79	81	84	76	99	117
320-113896-38 - DL	NK284443 V24-20097 liver								
320-113896-39	NK284444 V24-20103 liver	148	155 *5+	145	150	89	121	146	168 *5+
320-113896-39 - DL	NK284444 V24-20103 liver								
LCS 320-785621/2-A	Lab Control Sample	87	92	93	93	92	88	92	104
LCS 320-788729/2-A	Lab Control Sample	96	104	90	93	97	98	100	111
LCSD 320-785621/3-A	Lab Control Sample Dup	96	92	95	97	89	94	95	99
LCSD 320-788729/3-A	Lab Control Sample Dup	96	91	98	94	90	91	100	99
MB 320-785621/1-A	Method Blank	80	92	90	90	94	87	90	98
MB 320-788729/1-A	Method Blank	94	94	90	102	97	97	110	117
Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)	
320-113896-1	NK311140 liver	62	71	61	178 *5+	172 *5+	325 *5+	306 *5+	
320-113896-1 - DL	NK311140 liver			89					
320-113896-2	NK311141 liver	56	80	68	188 *5+	139	184 *5+	361 *5+	
320-113896-2 - DL	NK311141 liver			88					
320-113896-3	NK311142 liver	74	91	78	230 *5+	139	98	282 *5+	
320-113896-3 - DL	NK311142 liver			93					
320-113896-4	NK311143 liver	73	83	84	136	158 *5+	123	310 *5+	
320-113896-5	NK311145 liver	60			182 *5+	117	140	266 *5+	
320-113896-5 - DL	NK311145 liver		90	70					
320-113896-6	NK311145 femur	85	83	74	170 *5+	134	134	225 *5+	
320-113896-6 - DL	NK311145 femur			94					
320-113896-7	NK311146 liver	67			157 *5+	147	147	213 *5+	
320-113896-7 - DL	NK311146 liver		87	77					
320-113896-8	NK311146 femur	82	86	72	174 *5+	142	121	406 *5+	
320-113896-8 - DL	NK311146 femur			99					
320-113896-9	NK311129 liver	84	80	74	139	124	116	292 *5+	
320-113896-9 - DL	NK311129 liver			93					
320-113896-10	NK311131 liver	90			116	147	105	344 *5+	
320-113896-10 - DL	NK311131 liver		109	100					
320-113896-11	NK311133 liver	85	85	75	134	137	118	220 *5+	
320-113896-11 - DL	NK311133 liver			92					
320-113896-12	NK319511 muscle	65	79	71	142	180 *5+	184 *5+	300 *5+	
320-113896-13	NK319092 liver	70	85	81	192 *5+	76	167 *5+	397 *5+	
320-113896-14	Velvet ant NE2 03	83	89	90	95	103	103	133	
320-113896-15	ArtNE2 01	100	86	78	112	96	88	234 *5+	

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# Isotope Dilution Summary

Client: University of New Mexico

Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)						
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)
320-113896-15 - DL	ArtNE2 01			95				
320-113896-16	ArtNE2 02	87	94	93	119	109	100	134
320-113896-17	ArtNE2 03	81	92	90	150	131	146	447 *5+
320-113896-18	ArtNE2 04	94	93	90	108	103	89	132
320-113896-19	ArtNE4 01	96	91	81	97	94	93	89
320-113896-19 - DL	ArtNE4 01			105				
320-113896-20	ArtNE4 02	97	109	105	94	99	96	142
320-113896-21	ArtNE4 03	78	80	78	117	94	91	126
320-113896-22	ArtNE4 04	71	87	84	219 *5+	225 *5+	260 *5+	445 *5+
320-113896-24	NK284441	81	85	63	103	110	97	486 *5+
320-113896-24 - DL	NK284441			79				
320-113896-25	NK284442	77	84	75	130	112	104	566 *5+
320-113896-25 - DL	NK284442			91				
320-113896-26	NK284443	69		65	123	129	208 *5+	486 *5+
320-113896-26 - DL	NK284443			84	77			
320-113896-27	NK284444	79	77	73	104	106	98	460 *5+
320-113896-27 - DL	NK284444			80				
320-113896-28	NK284445	79	85	70	110	96	101	406 *5+
320-113896-28 - DL	NK284445			97				
320-113896-29	NK284446	72		66	128	126	111	497 *5+
320-113896-29 - DL	NK284446			89	96			
320-113896-30	NK284447	78	76	82	97	109	92	414 *5+
320-113896-31	NK284448	70	81	79	145	107	97	438 *5+
320-113896-31 - DL	NK284448			92				
320-113896-32	NK284449	75	96	78	137	132	123	513 *5+
320-113896-32 - DL	NK284449			94				
320-113896-33	NK284450	87	87	86	105	113	100	536 *5+
320-113896-33 - DL	NK284450			102				
320-113896-34	NK284451	94	97	87	130	123	120	558 *5+
320-113896-34 - DL	NK284451			93				
320-113896-35	NK284439	90			220 *5+	177 *5+	172 *5+	425 *5+
320-113896-35 - DL	NK284439			100	75			
320-113896-36	NK284452	63	74	65	155 *5+	186 *5+		392 *5+
320-113896-36 - DL	NK284452			79	88			95
320-113896-37	NK284442 V24-20096 liver	79		52	193 *5+	87	129	452 *5+
320-113896-37 - DL	NK284442 V24-20096 liver			91	82			
320-113896-38	NK284443 V24-20097 liver	74		62	173 *5+	172 *5+	265 *5+	433 *5+
320-113896-38 - DL	NK284443 V24-20097 liver			92				
320-113896-39	NK284444 V24-20103 liver	137	136	111	231 *5+	152 *5+	168 *5+	579 *5+
320-113896-39 - DL	NK284444 V24-20103 liver			88				
LCS 320-785621/2-A	Lab Control Sample	95	87	87	97	113	102	403 *5+
LCS 320-788729/2-A	Lab Control Sample	92	104	95	95	104	113	357 *5+
LCSD 320-785621/3-A	Lab Control Sample Dup	86	88	96	95	115	105	396 *5+
LCSD 320-788729/3-A	Lab Control Sample Dup	91	86	90	94	105	92	346 *5+
MB 320-785621/1-A	Method Blank	89	88	86	109	106	99	388 *5+
MB 320-788729/1-A	Method Blank	95	98	95	99	115	113	374 *5+

### Surrogate Legend

PFBA = 13C4 PFBA

PPPeA = 13C5 PPPeA

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# Isotope Dilution Summary

Client: University of New Mexico  
 Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 M102FTS = 13C2 10:2 FTS

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PPPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-113896-23	VDS 0 TEST	97	101	96	95	101	94	95	97
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)	
320-113896-23	VDS 0 TEST	96	92	93	85	88	93	119	

### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 M102FTS = 13C2 10:2 FTS

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# QC Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

**Lab Sample ID: MB 320-785621/1-A**

**Matrix: Tissue**

**Analysis Batch: 789266**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 785621**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg				1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg				1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg				1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg				1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg				1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg				1
Total PFOA	ND		1.0	0.20	ug/Kg				1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg				1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.10	ug/Kg				1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.27	ug/Kg				1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg				1
Perfluoropentanesulfonic acid (PPPeS)	ND		1.0	0.18	ug/Kg				1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg				1
Total PFHxS	ND		1.0	0.15	ug/Kg				1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg				1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg				1
L-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg				1
Br-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg				1
Total PFOS	ND		2.5	0.20	ug/Kg				1
4:2 FTS	ND		1.0	0.27	ug/Kg				1
6:2 FTS	ND		1.0	0.42	ug/Kg				1
8:2 FTS	ND		1.0	0.10	ug/Kg				1
10:2 FTS	ND		1.0	0.10	ug/Kg				1

Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFBA	80		25 - 150			1
13C5 PFPeA	92		25 - 150			1
13C2 PFHxA	90		25 - 150			1
13C4 PFHpA	90		25 - 150			1
13C4 PFOA	94		25 - 150			1
13C5 PFNA	87		25 - 150			1
13C2 PFDA	90		25 - 150			1
13C2 PFUnA	98		25 - 150			1
13C3 PFBS	89		25 - 150			1
18O2 PFHxS	88		25 - 150			1
13C4 PFOS	86		25 - 150			1
M2-4:2 FTS	109		25 - 150			1
M2-6:2 FTS	106		25 - 150			1
M2-8:2 FTS	99		25 - 150			1
13C2 10:2 FTS	388 *5+		25 - 150			1

**Lab Sample ID: LCS 320-785621/2-A**

**Matrix: Tissue**

**Analysis Batch: 789266**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 785621**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Perfluorobutanoic acid (PFBA)	10.0	10.4		ug/Kg		104	76 - 136

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# QC Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-785621/2-A**

**Matrix: Tissue**

**Analysis Batch: 789266**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 785621**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoropentanoic acid (PFPeA)	10.0	10.2		ug/Kg		102	69 - 129
Perfluorohexanoic acid (PFHxA)	10.0	10.6		ug/Kg		106	71 - 131
Perfluoroheptanoic acid (PFHpA)	10.0	11.1		ug/Kg		111	71 - 131
L-Perfluoroctanoic acid	10.0	10.2		ug/Kg		102	72 - 132
Total PFOA	10.0	10.2		ug/Kg		102	
Perfluorononanoic acid (PFNA)	10.0	11.0		ug/Kg		110	73 - 133
Perfluorodecanoic acid (PFDA)	10.0	11.3		ug/Kg		113	72 - 132
Perfluoroundecanoic acid (PFUnA)	10.0	10.1		ug/Kg		101	66 - 126
Perfluorobutanesulfonic acid (PFBS)	8.88	9.17		ug/Kg		103	69 - 129
Perfluoropentanesulfonic acid (PFPeS)	9.40	9.82		ug/Kg		104	66 - 126
Total PFHxS	9.12	9.20		ug/Kg		101	
L-Perfluorohexanesulfonic acid	9.12	9.20		ug/Kg		101	62 - 122
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.9		ug/Kg		114	76 - 136
L-Perfluoroctanesulfonic acid	9.30	10.3		ug/Kg		111	68 - 141
Total PFOS	9.30	10.3		ug/Kg		111	
4:2 FTS	9.38	10.3		ug/Kg		110	68 - 143
6:2 FTS	9.52	9.05		ug/Kg		95	73 - 139
8:2 FTS	9.60	10.6		ug/Kg		110	75 - 135
10:2 FTS	9.66	11.1		ug/Kg		115	69 - 145

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	87		25 - 150
13C5 PFPeA	92		25 - 150
13C2 PFHxA	93		25 - 150
13C4 PFHpA	93		25 - 150
13C4 PFOA	92		25 - 150
13C5 PFNA	88		25 - 150
13C2 PFDA	92		25 - 150
13C2 PFUnA	104		25 - 150
13C3 PFBS	95		25 - 150
18O2 PFHxS	87		25 - 150
13C4 PFOS	87		25 - 150
M2-4:2 FTS	97		25 - 150
M2-6:2 FTS	113		25 - 150
M2-8:2 FTS	102		25 - 150
13C2 10:2 FTS	403 *5+		25 - 150

**Lab Sample ID: LCSD 320-785621/3-A**

**Matrix: Tissue**

**Analysis Batch: 789266**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 785621**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	10.0	10.8		ug/Kg		108	76 - 136	4	30
Perfluoropentanoic acid (PFPeA)	10.0	11.0		ug/Kg		110	69 - 129	7	30
Perfluorohexanoic acid (PFHxA)	10.0	11.2		ug/Kg		112	71 - 131	6	30
Perfluoroheptanoic acid (PFHpA)	10.0	10.4		ug/Kg		104	71 - 131	6	30

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# QC Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-785621/3-A**

**Matrix: Tissue**

**Analysis Batch: 789266**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 785621**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
L-Perfluoroctanoic acid	10.0	11.0		ug/Kg		110	72 - 132	8	30
Total PFOA	10.0	11.0		ug/Kg		110		8	
Perfluorononanoic acid (PFNA)	10.0	10.6		ug/Kg		106	73 - 133	4	30
Perfluorodecanoic acid (PFDA)	10.0	11.0		ug/Kg		110	72 - 132	2	30
Perfluoroundecanoic acid (PFUnA)	10.0	10.5		ug/Kg		105	66 - 126	5	30
Perfluorobutanesulfonic acid (PFBS)	8.88	10.0		ug/Kg		113	69 - 129	9	30
Perfluoropentanesulfonic acid (PFPeS)	9.40	11.8		ug/Kg		126	66 - 126	18	30
Total PFHxS	9.12	9.21		ug/Kg		101		0	
L-Perfluorohexanesulfonic acid	9.12	9.21		ug/Kg		101	62 - 122	0	30
Perfluoroheptanesulfonic acid (PFHpS)	9.54	9.29		ug/Kg		97	76 - 136	16	30
L-Perfluoroctanesulfonic acid	9.30	9.37		ug/Kg		101	68 - 141	10	30
Total PFOS	9.30	9.37		ug/Kg		101		10	
4:2 FTS	9.38	10.9		ug/Kg		116	68 - 143	6	30
6:2 FTS	9.52	8.96		ug/Kg		94	73 - 139	1	30
8:2 FTS	9.60	10.6		ug/Kg		110	75 - 135	0	30
10:2 FTS	9.66	11.5		ug/Kg		119	69 - 145	4	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	96		25 - 150
13C5 PFPeA	92		25 - 150
13C2 PFHxA	95		25 - 150
13C4 PFHpA	97		25 - 150
13C4 PFOA	89		25 - 150
13C5 PFNA	94		25 - 150
13C2 PFDA	95		25 - 150
13C2 PFUnA	99		25 - 150
13C3 PFBS	86		25 - 150
18O2 PFHxS	88		25 - 150
13C4 PFOS	96		25 - 150
M2-4:2 FTS	95		25 - 150
M2-6:2 FTS	115		25 - 150
M2-8:2 FTS	105		25 - 150
13C2 10:2 FTS	396 *5+		25 - 150

**Lab Sample ID: MB 320-788729/1-A**

**Matrix: Tissue**

**Analysis Batch: 789267**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 788729**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		08/08/24 10:31	08/09/24 18:33	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		08/08/24 10:31	08/09/24 18:33	1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg		08/08/24 10:31	08/09/24 18:33	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		08/08/24 10:31	08/09/24 18:33	1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		08/08/24 10:31	08/09/24 18:33	1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		08/08/24 10:31	08/09/24 18:33	1
Total PFOA	ND		1.0	0.20	ug/Kg		08/08/24 10:31	08/09/24 18:33	1

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# QC Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: MB 320-788729/1-A**

**Matrix: Tissue**

**Analysis Batch: 789267**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 788729**

Analyte	Result	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
		Qualifier						Prepared	Analyzed		
Perfluorononanoic acid (PFNA)	ND			1.0	0.18	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
Perfluorodecanoic acid (PFDA)	ND			1.0	0.10	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
Perfluoroundecanoic acid (PFUnA)	ND			1.0	0.27	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
Perfluorobutanesulfonic acid (PFBS)	ND			1.0	0.17	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
Perfluoropentanesulfonic acid (PFPeS)	ND			1.0	0.18	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
Br-Perfluorohexanesulfonic acid	ND			1.0	0.15	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
Total PFHxS	ND			1.0	0.15	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
L-Perfluorohexanesulfonic acid	ND			1.0	0.15	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
Perfluoroheptanesulfonic acid (PFHpS)	ND			1.0	0.19	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
L-Perfluorooctanesulfonic acid	ND			2.5	0.20	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
Br-Perfluorooctanesulfonic acid	ND			2.5	0.20	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
Total PFOS	ND			2.5	0.20	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
4:2 FTS	ND			1.0	0.27	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
6:2 FTS	ND			1.0	0.42	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
8:2 FTS	ND			1.0	0.10	ug/Kg		08/08/24 10:31	08/09/24 18:33		1
10:2 FTS	0.103	J		1.0	0.10	ug/Kg		08/08/24 10:31	08/09/24 18:33		1

Isotope Dilution	%Recovery	MB		Limits	Prepared	Analyzed	Dil Fac
		Qualifier					
13C4 PFBA	94			25 - 150		08/08/24 10:31	08/09/24 18:33
13C5 PFPeA	94			25 - 150		08/08/24 10:31	08/09/24 18:33
13C2 PFHxA	90			25 - 150		08/08/24 10:31	08/09/24 18:33
13C4 PFHpA	102			25 - 150		08/08/24 10:31	08/09/24 18:33
13C4 PFOA	97			25 - 150		08/08/24 10:31	08/09/24 18:33
13C5 PFNA	97			25 - 150		08/08/24 10:31	08/09/24 18:33
13C2 PFDA	110			25 - 150		08/08/24 10:31	08/09/24 18:33
13C2 PFUnA	117			25 - 150		08/08/24 10:31	08/09/24 18:33
13C3 PFBS	95			25 - 150		08/08/24 10:31	08/09/24 18:33
18O2 PFHxS	98			25 - 150		08/08/24 10:31	08/09/24 18:33
13C4 PFOS	95			25 - 150		08/08/24 10:31	08/09/24 18:33
M2-4:2 FTS	99			25 - 150		08/08/24 10:31	08/09/24 18:33
M2-6:2 FTS	115			25 - 150		08/08/24 10:31	08/09/24 18:33
M2-8:2 FTS	113			25 - 150		08/08/24 10:31	08/09/24 18:33
13C2 10:2 FTS	374 *5+			25 - 150		08/08/24 10:31	08/09/24 18:33

**Lab Sample ID: LCS 320-788729/2-A**

**Matrix: Tissue**

**Analysis Batch: 789267**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 788729**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Perfluorobutanoic acid (PFBA)	10.0	10.3		ug/Kg		103	76 - 136
Perfluoropentanoic acid (PFPeA)	10.0	10.5		ug/Kg		105	69 - 129
Perfluorohexanoic acid (PFHxA)	10.0	11.1		ug/Kg		111	71 - 131
Perfluoroheptanoic acid (PFHpA)	10.0	10.9		ug/Kg		109	71 - 131
L-Perfluorooctanoic acid	10.0	9.85		ug/Kg		99	72 - 132
Total PFOA	10.0	9.85		ug/Kg		99	
Perfluorononanoic acid (PFNA)	10.0	10.6		ug/Kg		106	73 - 133
Perfluorodecanoic acid (PFDA)	10.0	10.9		ug/Kg		109	72 - 132

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# QC Sample Results

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-788729/2-A**

**Matrix: Tissue**

**Analysis Batch: 789267**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 788729**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoroundecanoic acid (PFUnA)	10.0	9.93		ug/Kg	99	66 - 126	
Perfluorobutanesulfonic acid (PFBS)	8.88	10.7		ug/Kg	120	69 - 129	
Perfluoropentanesulfonic acid (PFPeS)	9.40	10.6		ug/Kg	113	66 - 126	
Total PFHxS	9.12	8.95		ug/Kg	98		
L-Perfluorohexanesulfonic acid	9.12	8.95		ug/Kg	98	62 - 122	
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.9		ug/Kg	114	76 - 136	
L-Perfluoroctanesulfonic acid	9.30	9.91		ug/Kg	107	68 - 141	
Total PFOS	9.30	9.91		ug/Kg	107		
4:2 FTS	9.38	10.9		ug/Kg	116	68 - 143	
6:2 FTS	9.52	9.74		ug/Kg	102	73 - 139	
8:2 FTS	9.60	9.57		ug/Kg	100	75 - 135	
10:2 FTS	9.66	9.37		ug/Kg	97	69 - 145	

Isotope Dilution	%Recovery	LCS Qualifier	Limits
13C4 PFBA	96		25 - 150
13C5 PFPeA	104		25 - 150
13C2 PFHxA	90		25 - 150
13C4 PFHpA	93		25 - 150
13C4 PFOA	97		25 - 150
13C5 PFNA	98		25 - 150
13C2 PFDA	100		25 - 150
13C2 PFUnA	111		25 - 150
13C3 PFBS	92		25 - 150
18O2 PFHxS	104		25 - 150
13C4 PFOS	95		25 - 150
M2-4:2 FTS	95		25 - 150
M2-6:2 FTS	104		25 - 150
M2-8:2 FTS	113		25 - 150
13C2 10:2 FTS	357 *5+		25 - 150

**Lab Sample ID: LCSD 320-788729/3-A**

**Matrix: Tissue**

**Analysis Batch: 789267**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 788729**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
Perfluorobutanoic acid (PFBA)	10.0	10.1		ug/Kg	101	76 - 136	3	30
Perfluoropentanoic acid (PFPeA)	10.0	11.2		ug/Kg	112	69 - 129	7	30
Perfluorohexanoic acid (PFHxA)	10.0	9.76		ug/Kg	98	71 - 131	13	30
Perfluoroheptanoic acid (PFHpA)	10.0	10.9		ug/Kg	109	71 - 131	0	30
L-Perfluoroctanoic acid	10.0	10.5		ug/Kg	105	72 - 132	7	30
Total PFOA	10.0	10.5		ug/Kg	105		7	
Perfluorononanoic acid (PFNA)	10.0	11.0		ug/Kg	110	73 - 133	4	30
Perfluorodecanoic acid (PFDA)	10.0	10.2		ug/Kg	102	72 - 132	7	30
Perfluoroundecanoic acid (PFUnA)	10.0	10.9		ug/Kg	109	66 - 126	10	30

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-788729/3-A**

**Matrix: Tissue**

**Analysis Batch: 789267**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 788729**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD
				ug/Kg	114	Limits	Limit
Perfluorobutanesulfonic acid (PFBS)	8.88	10.1				69 - 129	6
Perfluoropentanesulfonic acid (PFPeS)	9.40	10.1		ug/Kg	108	66 - 126	5
Total PFHxS	9.12	9.18		ug/Kg	101		30
L-Perfluorohexanesulfonic acid	9.12	9.18		ug/Kg	101	62 - 122	3
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.2		ug/Kg	107	76 - 136	6
L-Perfluoroctanesulfonic acid	9.30	9.45		ug/Kg	102	68 - 141	5
Total PFOS	9.30	9.45		ug/Kg	102		30
4:2 FTS	9.38	10.6		ug/Kg	113	68 - 143	2
6:2 FTS	9.52	9.55		ug/Kg	100	73 - 139	2
8:2 FTS	9.60	10.8		ug/Kg	112	75 - 135	12
10:2 FTS	9.66	9.08		ug/Kg	94	69 - 145	3

*LCSD*   *LCSD*

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
13C4 PFBA	96		25 - 150
13C5 PFPeA	91		25 - 150
13C2 PFHxA	98		25 - 150
13C4 PFHpA	94		25 - 150
13C4 PFOA	90		25 - 150
13C5 PFNA	91		25 - 150
13C2 PFDA	100		25 - 150
13C2 PFUnA	99		25 - 150
13C3 PFBS	91		25 - 150
18O2 PFHxS	86		25 - 150
13C4 PFOS	90		25 - 150
M2-4:2 FTS	94		25 - 150
M2-6:2 FTS	105		25 - 150
M2-8:2 FTS	92		25 - 150
13C2 10:2 FTS	346 *5+		25 - 150

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# QC Association Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## LCMS

### Pre Prep Batch: 785620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-1	NK311140 liver	Total/NA	Tissue	In-House	
320-113896-1 - DL	NK311140 liver	Total/NA	Tissue	In-House	
320-113896-2 - DL	NK311141 liver	Total/NA	Tissue	In-House	
320-113896-2	NK311141 liver	Total/NA	Tissue	In-House	
320-113896-3	NK311142 liver	Total/NA	Tissue	In-House	
320-113896-3 - DL	NK311142 liver	Total/NA	Tissue	In-House	
320-113896-4	NK311143 liver	Total/NA	Tissue	In-House	
320-113896-5 - DL	NK311145 liver	Total/NA	Tissue	In-House	
320-113896-5	NK311145 liver	Total/NA	Tissue	In-House	
320-113896-6	NK311145 femur	Total/NA	Tissue	In-House	
320-113896-6 - DL	NK311145 femur	Total/NA	Tissue	In-House	
320-113896-7 - DL	NK311146 liver	Total/NA	Tissue	In-House	
320-113896-7	NK311146 liver	Total/NA	Tissue	In-House	
320-113896-8 - DL	NK311146 femur	Total/NA	Tissue	In-House	
320-113896-8	NK311146 femur	Total/NA	Tissue	In-House	
320-113896-9	NK311129 liver	Total/NA	Tissue	In-House	
320-113896-9 - DL	NK311129 liver	Total/NA	Tissue	In-House	
320-113896-10 - DL	NK311131 liver	Total/NA	Tissue	In-House	
320-113896-10	NK311131 liver	Total/NA	Tissue	In-House	
320-113896-11 - DL	NK311133 liver	Total/NA	Tissue	In-House	
320-113896-11	NK311133 liver	Total/NA	Tissue	In-House	
320-113896-12	NK319511 muscle	Total/NA	Tissue	In-House	
320-113896-13	NK319092 liver	Total/NA	Tissue	In-House	
320-113896-14	Velvet ant NE2 03	Total/NA	Tissue	In-House	
320-113896-15 - DL	ArtNE2 01	Total/NA	Tissue	In-House	
320-113896-15	ArtNE2 01	Total/NA	Tissue	In-House	
320-113896-16	ArtNE2 02	Total/NA	Tissue	In-House	
320-113896-17	ArtNE2 03	Total/NA	Tissue	In-House	
320-113896-18	ArtNE2 04	Total/NA	Tissue	In-House	
320-113896-19 - DL	ArtNE4 01	Total/NA	Tissue	In-House	
320-113896-19	ArtNE4 01	Total/NA	Tissue	In-House	
320-113896-20	ArtNE4 02	Total/NA	Tissue	In-House	

### Prep Batch: 785621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-1	NK311140 liver	Total/NA	Tissue	SHAKE	785620
320-113896-1 - DL	NK311140 liver	Total/NA	Tissue	SHAKE	785620
320-113896-2 - DL	NK311141 liver	Total/NA	Tissue	SHAKE	785620
320-113896-2	NK311141 liver	Total/NA	Tissue	SHAKE	785620
320-113896-3 - DL	NK311142 liver	Total/NA	Tissue	SHAKE	785620
320-113896-3	NK311142 liver	Total/NA	Tissue	SHAKE	785620
320-113896-4	NK311143 liver	Total/NA	Tissue	SHAKE	785620
320-113896-5 - DL	NK311145 liver	Total/NA	Tissue	SHAKE	785620
320-113896-5	NK311145 liver	Total/NA	Tissue	SHAKE	785620
320-113896-6	NK311145 femur	Total/NA	Tissue	SHAKE	785620
320-113896-6 - DL	NK311145 femur	Total/NA	Tissue	SHAKE	785620
320-113896-7	NK311146 liver	Total/NA	Tissue	SHAKE	785620
320-113896-7 - DL	NK311146 liver	Total/NA	Tissue	SHAKE	785620
320-113896-8 - DL	NK311146 femur	Total/NA	Tissue	SHAKE	785620
320-113896-8	NK311146 femur	Total/NA	Tissue	SHAKE	785620
320-113896-9	NK311129 liver	Total/NA	Tissue	SHAKE	785620

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# QC Association Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## LCMS (Continued)

### Prep Batch: 785621 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-9 - DL	NK311129 liver	Total/NA	Tissue	SHAKE	785620
320-113896-10	NK311131 liver	Total/NA	Tissue	SHAKE	785620
320-113896-10 - DL	NK311131 liver	Total/NA	Tissue	SHAKE	785620
320-113896-11	NK311133 liver	Total/NA	Tissue	SHAKE	785620
320-113896-11 - DL	NK311133 liver	Total/NA	Tissue	SHAKE	785620
320-113896-12	NK319511 muscle	Total/NA	Tissue	SHAKE	785620
320-113896-13	NK319092 liver	Total/NA	Tissue	SHAKE	785620
320-113896-14	Velvet ant NE2 03	Total/NA	Tissue	SHAKE	785620
320-113896-15 - DL	ArtNE2 01	Total/NA	Tissue	SHAKE	785620
320-113896-15	ArtNE2 01	Total/NA	Tissue	SHAKE	785620
320-113896-16	ArtNE2 02	Total/NA	Tissue	SHAKE	785620
320-113896-17	ArtNE2 03	Total/NA	Tissue	SHAKE	785620
320-113896-18	ArtNE2 04	Total/NA	Tissue	SHAKE	785620
320-113896-19	ArtNE4 01	Total/NA	Tissue	SHAKE	785620
320-113896-19 - DL	ArtNE4 01	Total/NA	Tissue	SHAKE	785620
320-113896-20	ArtNE4 02	Total/NA	Tissue	SHAKE	785620
MB 320-785621/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-785621/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-785621/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

### Prep Batch: 786204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-23	VDS 0 TEST	Total/NA	Water	3535	

### Pre Prep Batch: 788724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-21	ArtNE4 03	Total/NA	Tissue	In-House	
320-113896-22	ArtNE4 04	Total/NA	Tissue	In-House	
320-113896-24 - DL	NK284441	Total/NA	Tissue	In-House	
320-113896-24	NK284441	Total/NA	Tissue	In-House	
320-113896-25	NK284442	Total/NA	Tissue	In-House	
320-113896-25 - DL	NK284442	Total/NA	Tissue	In-House	
320-113896-26	NK284443	Total/NA	Tissue	In-House	
320-113896-26 - DL	NK284443	Total/NA	Tissue	In-House	
320-113896-27	NK284444	Total/NA	Tissue	In-House	
320-113896-27 - DL	NK284444	Total/NA	Tissue	In-House	
320-113896-28 - DL	NK284445	Total/NA	Tissue	In-House	
320-113896-28	NK284445	Total/NA	Tissue	In-House	
320-113896-29 - DL	NK284446	Total/NA	Tissue	In-House	
320-113896-29	NK284446	Total/NA	Tissue	In-House	
320-113896-30	NK284447	Total/NA	Tissue	In-House	
320-113896-31 - DL	NK284448	Total/NA	Tissue	In-House	
320-113896-31	NK284448	Total/NA	Tissue	In-House	
320-113896-32	NK284449	Total/NA	Tissue	In-House	
320-113896-32 - DL	NK284449	Total/NA	Tissue	In-House	
320-113896-33 - DL	NK284450	Total/NA	Tissue	In-House	
320-113896-33	NK284450	Total/NA	Tissue	In-House	
320-113896-34	NK284451	Total/NA	Tissue	In-House	
320-113896-34 - DL	NK284451	Total/NA	Tissue	In-House	
320-113896-35	NK284439	Total/NA	Tissue	In-House	
320-113896-35 - DL	NK284439	Total/NA	Tissue	In-House	

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# QC Association Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## LCMS (Continued)

### Pre Prep Batch: 788724 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-36 - DL	NK284452	Total/NA	Tissue	In-House	
320-113896-36	NK284452	Total/NA	Tissue	In-House	
320-113896-37	NK284442 V24-20096 liver	Total/NA	Tissue	In-House	
320-113896-37 - DL	NK284442 V24-20096 liver	Total/NA	Tissue	In-House	
320-113896-38 - DL	NK284443 V24-20097 liver	Total/NA	Tissue	In-House	
320-113896-38	NK284443 V24-20097 liver	Total/NA	Tissue	In-House	
320-113896-39 - DL	NK284444 V24-20103 liver	Total/NA	Tissue	In-House	
320-113896-39	NK284444 V24-20103 liver	Total/NA	Tissue	In-House	

### Prep Batch: 788729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-21	ArtNE4 03	Total/NA	Tissue	SHAKE	788724
320-113896-22	ArtNE4 04	Total/NA	Tissue	SHAKE	788724
320-113896-24 - DL	NK284441	Total/NA	Tissue	SHAKE	788724
320-113896-24	NK284441	Total/NA	Tissue	SHAKE	788724
320-113896-25 - DL	NK284442	Total/NA	Tissue	SHAKE	788724
320-113896-25	NK284442	Total/NA	Tissue	SHAKE	788724
320-113896-26	NK284443	Total/NA	Tissue	SHAKE	788724
320-113896-26 - DL	NK284443	Total/NA	Tissue	SHAKE	788724
320-113896-27	NK284444	Total/NA	Tissue	SHAKE	788724
320-113896-27 - DL	NK284444	Total/NA	Tissue	SHAKE	788724
320-113896-28 - DL	NK284445	Total/NA	Tissue	SHAKE	788724
320-113896-28	NK284445	Total/NA	Tissue	SHAKE	788724
320-113896-29	NK284446	Total/NA	Tissue	SHAKE	788724
320-113896-29 - DL	NK284446	Total/NA	Tissue	SHAKE	788724
320-113896-30	NK284447	Total/NA	Tissue	SHAKE	788724
320-113896-31	NK284448	Total/NA	Tissue	SHAKE	788724
320-113896-31 - DL	NK284448	Total/NA	Tissue	SHAKE	788724
320-113896-32	NK284449	Total/NA	Tissue	SHAKE	788724
320-113896-32 - DL	NK284449	Total/NA	Tissue	SHAKE	788724
320-113896-33	NK284450	Total/NA	Tissue	SHAKE	788724
320-113896-33 - DL	NK284450	Total/NA	Tissue	SHAKE	788724
320-113896-34	NK284451	Total/NA	Tissue	SHAKE	788724
320-113896-34 - DL	NK284451	Total/NA	Tissue	SHAKE	788724
320-113896-35	NK284439	Total/NA	Tissue	SHAKE	788724
320-113896-35 - DL	NK284439	Total/NA	Tissue	SHAKE	788724
320-113896-36 - DL	NK284452	Total/NA	Tissue	SHAKE	788724
320-113896-36	NK284452	Total/NA	Tissue	SHAKE	788724
320-113896-37 - DL	NK284442 V24-20096 liver	Total/NA	Tissue	SHAKE	788724
320-113896-37	NK284442 V24-20096 liver	Total/NA	Tissue	SHAKE	788724
320-113896-38	NK284443 V24-20097 liver	Total/NA	Tissue	SHAKE	788724
320-113896-38 - DL	NK284443 V24-20097 liver	Total/NA	Tissue	SHAKE	788724
320-113896-39 - DL	NK284444 V24-20103 liver	Total/NA	Tissue	SHAKE	788724
320-113896-39	NK284444 V24-20103 liver	Total/NA	Tissue	SHAKE	788724
MB 320-788729/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-788729/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-788729/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

### Analysis Batch: 789266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-1	NK311140 liver	Total/NA	Tissue	B/L/T PFAS	785621

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# QC Association Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## LCMS (Continued)

### Analysis Batch: 789266 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-2	NK311141 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-3	NK311142 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-4	NK311143 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-5	NK311145 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-6	NK311145 femur	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-7	NK311146 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-8	NK311146 femur	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-9	NK311129 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-10	NK311131 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-11	NK311133 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-12	NK319511 muscle	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-13	NK319092 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-14	Velvet ant NE2 03	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-15	ArtNE2 01	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-16	ArtNE2 02	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-17	ArtNE2 03	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-18	ArtNE2 04	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-19	ArtNE4 01	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-20	ArtNE4 02	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-23	VDS 0 TEST	Total/NA	Water	B/L/T PFAS	786204
MB 320-785621/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	785621
LCS 320-785621/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	785621
LCSD 320-785621/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	785621

### Analysis Batch: 789267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-21	ArtNE4 03	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-22	ArtNE4 04	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-24	NK284441	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-25	NK284442	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-26	NK284443	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-27	NK284444	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-28	NK284445	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-29	NK284446	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-30	NK284447	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-31	NK284448	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-32	NK284449	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-33	NK284450	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-34	NK284451	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-35	NK284439	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-36	NK284452	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-37	NK284442 V24-20096 liver	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-38	NK284443 V24-20097 liver	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-39	NK284444 V24-20103 liver	Total/NA	Tissue	B/L/T PFAS	788729
MB 320-788729/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	788729
LCS 320-788729/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	788729
LCSD 320-788729/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	788729

### Analysis Batch: 790560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-24 - DL	NK284441	Total/NA	Tissue	B/L/T PFAS	788729

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# QC Association Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## LCMS (Continued)

### Analysis Batch: 790560 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-25 - DL	NK284442	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-26 - DL	NK284443	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-27 - DL	NK284444	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-29 - DL	NK284446	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-31 - DL	NK284448	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-32 - DL	NK284449	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-35 - DL	NK284439	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-36 - DL	NK284452	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-37 - DL	NK284442 V24-20096 liver	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-38 - DL	NK284443 V24-20097 liver	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-39 - DL	NK284444 V24-20103 liver	Total/NA	Tissue	B/L/T PFAS	788729

### Analysis Batch: 791187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-28 - DL	NK284445	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-33 - DL	NK284450	Total/NA	Tissue	B/L/T PFAS	788729
320-113896-34 - DL	NK284451	Total/NA	Tissue	B/L/T PFAS	788729

### Analysis Batch: 791473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-1 - DL	NK311140 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-2 - DL	NK311141 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-3 - DL	NK311142 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-5 - DL	NK311145 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-6 - DL	NK311145 femur	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-7 - DL	NK311146 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-8 - DL	NK311146 femur	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-9 - DL	NK311129 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-10 - DL	NK311131 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-15 - DL	ArtNE2 01	Total/NA	Tissue	B/L/T PFAS	785621

### Analysis Batch: 791800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-113896-11 - DL	NK311133 liver	Total/NA	Tissue	B/L/T PFAS	785621
320-113896-19 - DL	ArtNE4 01	Total/NA	Tissue	B/L/T PFAS	785621

# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311140 liver**

**Lab Sample ID: 320-113896-1**

**Matrix: Tissue**

Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			1.01 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 04:58	JTD	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.01 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	20	1 mL	1 mL	791473	08/15/24 10:59	C1P	EET SAC

**Client Sample ID: NK311141 liver**

**Lab Sample ID: 320-113896-2**

**Matrix: Tissue**

Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			1.34 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 05:17	JTD	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.34 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	791473	08/15/24 11:18	C1P	EET SAC

**Client Sample ID: NK311142 liver**

**Lab Sample ID: 320-113896-3**

**Matrix: Tissue**

Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.07 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 05:37	JTD	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.07 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	5	1 mL	1 mL	791473	08/15/24 11:38	C1P	EET SAC

**Client Sample ID: NK311143 liver**

**Lab Sample ID: 320-113896-4**

**Matrix: Tissue**

Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.14 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 05:56	JTD	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311145 liver**  
**Date Collected: 07/03/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-5**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			1.45 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 06:15	JTD	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.45 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	791473	08/15/24 16:10	C1P	EET SAC

**Client Sample ID: NK311145 femur**  
**Date Collected: 07/03/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-6**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.19 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 06:35	JTD	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.19 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	791473	08/15/24 11:57	C1P	EET SAC

**Client Sample ID: NK311146 liver**  
**Date Collected: 07/03/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-7**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			1.55 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 06:54	JTD	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.55 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	791473	08/15/24 16:29	C1P	EET SAC

**Client Sample ID: NK311146 femur**  
**Date Collected: 07/03/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-8**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.29 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 07:33	JTD	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.29 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	791473	08/15/24 12:36	C1P	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK311129 liver**  
Date Collected: 05/16/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-9**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.40 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 07:53	JTD	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.40 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	791473	08/15/24 13:15	C1P	EET SAC

**Client Sample ID: NK311131 liver**  
Date Collected: 05/16/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-10**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.30 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 08:12	JTD	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.30 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	791473	08/15/24 15:50	C1P	EET SAC

**Client Sample ID: NK311133 liver**  
Date Collected: 05/16/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-11**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.37 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 08:31	JTD	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.37 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	20	1 mL	1 mL	791800	08/16/24 09:38	S1C	EET SAC

**Client Sample ID: NK319511 muscle**  
Date Collected: 02/10/24 10:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-12**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:06	AM	EET SAC
Total/NA	Prep	SHAKE			1.89 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 08:51	JTD	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK319092 liver**  
**Date Collected: 02/10/24 10:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-13**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			1.51 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 09:10	JTD	EET SAC

**Client Sample ID: Velvet ant NE2 03**  
**Date Collected: 07/03/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-14**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.27 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 09:30	JTD	EET SAC

**Client Sample ID: ArtNE2 01**  
**Date Collected: 07/03/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-15**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.82 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 09:49	JTD	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.82 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	791473	08/15/24 15:11	C1P	EET SAC

**Client Sample ID: ArtNE2 02**  
**Date Collected: 07/03/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-16**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.05 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 10:08	JTD	EET SAC

**Client Sample ID: ArtNE2 03**  
**Date Collected: 07/03/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-17**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			1.24 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 10:28	JTD	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: ArtNE2 04**  
Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-18**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.15 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 14:21	JTD	EET SAC

**Client Sample ID: ArtNE4 01**  
Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-19**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.85 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 14:40	JTD	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.85 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	791800	08/16/24 09:57	S1C	EET SAC

**Client Sample ID: ArtNE4 02**  
Date Collected: 07/03/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-20**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	785620	07/29/24 11:04	AM	EET SAC
Total/NA	Prep	SHAKE			0.43 g	10.0 mL	785621	07/29/24 11:09	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 15:00	JTD	EET SAC

**Client Sample ID: ArtNE4 03**  
Date Collected: 05/16/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-21**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			0.25 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 19:31	C1P	EET SAC

**Client Sample ID: ArtNE4 04**  
Date Collected: 05/15/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-22**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			0.29 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 19:51	C1P	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## **Client Sample ID: VDS 0 TEST**

Date Collected: 07/17/24 00:00

Date Received: 07/18/24 09:20

## **Lab Sample ID: 320-113896-23**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			4.0 mL	10.0 mL	786204	07/30/24 19:07	EWH	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789266	08/09/24 15:19	JTD	EET SAC

## **Client Sample ID: NK284441**

Date Collected: 06/24/24 07:00

Date Received: 07/18/24 09:20

## **Lab Sample ID: 320-113896-24**

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			0.94 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 20:10	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.94 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	790560	08/12/24 20:19	C1P	EET SAC

## **Client Sample ID: NK284442**

Date Collected: 06/24/24 07:00

Date Received: 07/18/24 09:20

## **Lab Sample ID: 320-113896-25**

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			1.18 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 20:30	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.18 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	790560	08/12/24 20:58	C1P	EET SAC

## **Client Sample ID: NK284443**

Date Collected: 06/24/24 07:00

Date Received: 07/18/24 09:20

## **Lab Sample ID: 320-113896-26**

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			1.99 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 20:49	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.99 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	790560	08/12/24 21:17	C1P	EET SAC

## **Client Sample ID: NK284444**

Date Collected: 06/24/24 07:00

Date Received: 07/18/24 09:20

## **Lab Sample ID: 320-113896-27**

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			1.32 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 21:08	C1P	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284444**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-27**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.32 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	790560	08/12/24 22:16	C1P	EET SAC

**Client Sample ID: NK284445**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-28**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			0.98 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 21:28	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.98 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	791187	08/14/24 09:51	C1P	EET SAC

**Client Sample ID: NK284446**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-29**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			1.42 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 22:07	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.42 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	790560	08/12/24 22:54	C1P	EET SAC

**Client Sample ID: NK284447**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-30**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			0.88 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 22:26	C1P	EET SAC

**Client Sample ID: NK284448**  
Date Collected: 06/24/24 07:00  
Date Received: 07/18/24 09:20

**Lab Sample ID: 320-113896-31**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			1.78 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 22:45	C1P	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284448**  
**Date Collected: 06/24/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-31**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.78 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	790560	08/12/24 23:53	C1P	EET SAC

**Client Sample ID: NK284449**  
**Date Collected: 06/24/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-32**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			0.76 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 23:05	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.76 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	790560	08/13/24 00:12	C1P	EET SAC

**Client Sample ID: NK284450**  
**Date Collected: 06/24/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-33**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			0.56 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 23:24	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.56 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	20	1 mL	1 mL	791187	08/14/24 10:10	C1P	EET SAC

**Client Sample ID: NK284451**  
**Date Collected: 06/24/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-34**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			1.09 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/09/24 23:44	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.09 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	20	1 mL	1 mL	791187	08/14/24 10:30	C1P	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284439**  
**Date Collected: 07/11/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-35**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			1.02 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/10/24 00:03	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.02 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	790560	08/13/24 01:30	C1P	EET SAC

**Client Sample ID: NK284452**  
**Date Collected: 07/16/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-36**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			1.03 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/10/24 00:22	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.03 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	790560	08/13/24 02:28	C1P	EET SAC

**Client Sample ID: NK284442 V24-20096 liver**  
**Date Collected: 06/24/24 00:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-37**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			0.91 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/10/24 00:42	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.91 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	790560	08/13/24 03:07	C1P	EET SAC

**Client Sample ID: NK284443 V24-20097 liver**  
**Date Collected: 06/24/24 07:00**  
**Date Received: 07/18/24 09:20**

**Lab Sample ID: 320-113896-38**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			1.08 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/10/24 01:01	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		1.08 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	790560	08/13/24 03:46	C1P	EET SAC

Eurofins Sacramento

# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

**Client Sample ID: NK284444 V24-20103 liver**

**Lab Sample ID: 320-113896-39**

**Matrix: Tissue**

Date Collected: 06/24/24 07:00

Date Received: 07/18/24 09:20

Prep Type	Batch	Batch	Run	Dil	Initial	Final	Batch	Prepared		Lab
	Type	Method		Factor	Amount	Amount	Number	or Analyzed	Analyst	
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE			0.32 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	789267	08/10/24 01:40	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	788724	08/08/24 10:28	AM	EET SAC
Total/NA	Prep	SHAKE	DL		0.32 g	10.0 mL	788729	08/08/24 10:31	AM	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	790560	08/13/24 04:24	C1P	EET SAC

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: University of New Mexico

Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

## Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468	01-20-27
Arizona	State	AZ0708	08-11-25
Arkansas DEQ	State	88-0691	05-18-25
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-24
Florida	NELAP	E87570	06-30-25
Georgia	State	4040	01-29-25
Hawaii	State	Eurofins Sacramento	01-29-25
Illinois	NELAP	200060	03-31-25
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-25
Louisiana (All)	NELAP	01944	06-30-25
Maine	State	CA00004	04-14-26
Michigan	State	9947	08-18-24
Nevada	State	CA00044	10-31-24
New Hampshire	NELAP	2997	04-19-25
New Jersey	NELAP	CA005	06-30-25
New York	NELAP	11666	04-01-25
Ohio	State	41252	01-29-25
Oregon	NELAP	4040	01-29-25
Texas	NELAP	T104704399-23-17	05-31-25
US Fish & Wildlife	US Federal Programs	A22139	04-30-25
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-25
Virginia	NELAP	460278	03-14-25
Washington	State	C581	05-05-25
West Virginia (DW)	State	9930C	01-31-25
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Sacramento

## Method Summary

Client: University of New Mexico  
Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

Method	Method Description	Protocol	Laboratory
B/L/T PFAS	Branched, Linear and Total PFAS	EPA	EET SAC
3535	Solid-Phase Extraction (SPE)	SW846	EET SAC
In-House	Tissue Preparation/Homogenization	NOAA	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

### Protocol References:

EPA = US Environmental Protection Agency

NOAA = National Marine Fisheries Service, National Oceanic And Atmospheric Administration, Seattle, WA, November 1988

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

### Laboratory References:

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

# Sample Summary

Client: University of New Mexico  
 Project/Site: Holloman bird/mammal

Job ID: 320-113896-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
320-113896-1	NK311140 liver	Tissue	07/03/24 07:00	07/18/24 09:20	1
320-113896-2	NK311141 liver	Tissue	07/03/24 07:00	07/18/24 09:20	2
320-113896-3	NK311142 liver	Tissue	07/03/24 07:00	07/18/24 09:20	3
320-113896-4	NK311143 liver	Tissue	07/03/24 07:00	07/18/24 09:20	4
320-113896-5	NK311145 liver	Tissue	07/03/24 07:00	07/18/24 09:20	5
320-113896-6	NK311145 femur	Tissue	07/03/24 07:00	07/18/24 09:20	6
320-113896-7	NK311146 liver	Tissue	07/03/24 07:00	07/18/24 09:20	7
320-113896-8	NK311146 femur	Tissue	07/03/24 07:00	07/18/24 09:20	8
320-113896-9	NK311129 liver	Tissue	05/16/24 07:00	07/18/24 09:20	9
320-113896-10	NK311131 liver	Tissue	05/16/24 07:00	07/18/24 09:20	10
320-113896-11	NK311133 liver	Tissue	05/16/24 07:00	07/18/24 09:20	11
320-113896-12	NK319511 muscle	Tissue	02/10/24 10:00	07/18/24 09:20	12
320-113896-13	NK319092 liver	Tissue	02/10/24 10:00	07/18/24 09:20	13
320-113896-14	Velvet ant NE2 03	Tissue	07/03/24 07:00	07/18/24 09:20	14
320-113896-15	ArtNE2 01	Tissue	07/03/24 07:00	07/18/24 09:20	
320-113896-16	ArtNE2 02	Tissue	07/03/24 07:00	07/18/24 09:20	
320-113896-17	ArtNE2 03	Tissue	07/03/24 07:00	07/18/24 09:20	
320-113896-18	ArtNE2 04	Tissue	07/03/24 07:00	07/18/24 09:20	
320-113896-19	ArtNE4 01	Tissue	07/03/24 07:00	07/18/24 09:20	
320-113896-20	ArtNE4 02	Tissue	07/03/24 07:00	07/18/24 09:20	
320-113896-21	ArtNE4 03	Tissue	05/16/24 07:00	07/18/24 09:20	
320-113896-22	ArtNE4 04	Tissue	05/15/24 07:00	07/18/24 09:20	
320-113896-23	VDS 0 TEST	Water	07/17/24 00:00	07/18/24 09:20	
320-113896-24	NK284441	Tissue	06/24/24 07:00	07/18/24 09:20	
320-113896-25	NK284442	Tissue	06/24/24 07:00	07/18/24 09:20	
320-113896-26	NK284443	Tissue	06/24/24 07:00	07/18/24 09:20	
320-113896-27	NK284444	Tissue	06/24/24 07:00	07/18/24 09:20	
320-113896-28	NK284445	Tissue	06/24/24 07:00	07/18/24 09:20	
320-113896-29	NK284446	Tissue	06/24/24 07:00	07/18/24 09:20	
320-113896-30	NK284447	Tissue	06/24/24 07:00	07/18/24 09:20	
320-113896-31	NK284448	Tissue	06/24/24 07:00	07/18/24 09:20	
320-113896-32	NK284449	Tissue	06/24/24 07:00	07/18/24 09:20	
320-113896-33	NK284450	Tissue	06/24/24 07:00	07/18/24 09:20	
320-113896-34	NK284451	Tissue	06/24/24 07:00	07/18/24 09:20	
320-113896-35	NK284439	Tissue	07/11/24 07:00	07/18/24 09:20	
320-113896-36	NK284452	Tissue	07/16/24 07:00	07/18/24 09:20	
320-113896-37	NK284442 V24-20096 liver	Tissue	06/24/24 00:00	07/18/24 09:20	
320-113896-38	NK284443 V24-20097 liver	Tissue	06/24/24 07:00	07/18/24 09:20	
320-113896-39	NK284444 V24-20103 liver	Tissue	06/24/24 07:00	07/18/24 09:20	

## **Chain of Custody Record**

eurofins

Client Contact		Report To Jean-Luc Cartron or Jon Dunnum		Site Contact:		16-Jul-24		COC No				
Museum of Southwestern Biology University of New Mexico CERIA 83 rm 204 1 University of New Mexico		Tel/Fax:505 277-9262; 505 977-7716		Lab Contact:				<input type="checkbox"/> 1 <input type="checkbox"/> of <input type="checkbox"/> 3 COCs				
Albuquerque New Mexico 87131 505 277-9262 505 977-7716		Analysis Turnaround Time		Analysis Turnaround Time Calendar ( C ) or Work Days ( W ) <input type="checkbox"/> C TAT if different from Below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Job No				
FAX: Holloman bird/mammal PFAS Project												SDG No
Site: P O #												
		Sample Date	Sample Time					Sample Type	Matrix	# of Cont.	Filtered Sample	
Sample Identification												Sample Specific Notes.
NK311140 liver		7/3/2024	7:00	liver				Dipodomys merriami				
NK311141 liver		7/3/2024	7:00	liver				Dipodomys merriami				
NK311142 liver		7/3/2024	7:00	liver				Perognathus flavus				
NK311143 liver		7/3/2024	7:00	liver				Perognathus flavus				
NK311145 liver		7/3/2024	7:00	liver				Dipodomys merriami				
NK311145 femur		7/3/2024	7:00	bone				Dipodomys merriami				
NK311146 liver		7/3/2024	7:00	liver				Xerospermophilus spilosoma				
NK311146 femur		7/3/2024	7:00	bone				Xerospermophilus spilosoma				
NK311129 liver		5/16/2024	7:00	liver				Chaetodipus eremicus				
NK311131 liver		5/16/2024	7:00	liver				Chaetodipus eremicus				
NK311133 liver		5/16/2024	7:00	liver				Chaetodipus eremicus				
NK319511 muscle		2/10/2024	10:00	muscle				Oryz gazella				
 320-113896 Chain of Custody												
Preservation Used: 1= Ice; 2= HCl; 3= H <sub>2</sub> SO <sub>4</sub> ; 4= HNO <sub>3</sub> ; 5= NaOH; 6= Other _____												
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>								Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Special Instructions/QC Requirements & Comments:     												
Relinquished by:	Company:		Date/Time	Received by:		Company:		Date/Time				
Relinquished by:	Company:		Date/Time:	Received by:		Company:		Date/Time				
Relinquished by:	Company:		Date/Time:	Received by:		Company:		Date/Time				

THE JOURNAL OF CLIMATE

**Company**

**Date/Time**

Company

Date/Time  
7/18/24 0920

Relinquished by:

Company

Date/Time:

Company:

Date/Time \_\_\_\_\_

Relinquished by:

Company

Date/Time

Company

**Data/Time**

Commissioned by

Company

Date/Time:

Company

**Date/Time**

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Figure 1. The relationship between the number of species and the area of forest.

For more information about the study, please contact Dr. Michael J. Hwang at (319) 356-4000 or email at [mhwang@uiowa.edu](mailto:mhwang@uiowa.edu).

2024

**Eurofins Environment Testing Northern California**  
 880 Riverside Parkway  
 West Sacramento CA 95605  
 Phone: 916.373.5600

### Chain of Custody Record

eurofins

Client Contact	Report To	Site Contact:		16-Jul-24		COC No	
Museum of Southwestern Biology University of New Mexico	Jean-Luc Cartron or Jon Dunnum Tel/Fax: 505 277-9262, 505 977 7716	Lab Contact:		Carrier:		2 of 3 COCs	
CERIA 83 rm 204 1 University of New Mexico Albuquerque, New Mexico 87131 505 277-9262 505 977-7716 FAX: Holloman bird/mammal PFAS Project Site. P O #	Analysis Turnaround Time Calendar (C) or Work Days (W) C						Job No
	TAT if different from Below						SDG No
	<input checked="" type="checkbox"/>	2 weeks					
	<input type="checkbox"/>	1 week					
	<input type="checkbox"/>	2 days					
	<input type="checkbox"/>	1 day					
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Preserved Sample	Sample Specific Notes
NK319092 liver	2/10/2024	10:00	liver				Oryz gazella
Velvet ant NE2 03	7/3/2024	7:00	arthropods				mixed arthropods
ArtNE2 01	7/3/2024	7:00	arthropods				mixed arthropods
ArtNE2 02	7/3/2024	7:00	arthropods				mixed arthropods
ArtNE2 03	7/3/2024	7:00	arthropods				mixed arthropods
ArtNE2 04	7/3/2024	7:00	arthropods				mixed arthropods
ArtNE4 01	7/3/2024	7:00	arthropods				mixed arthropods
ArtNE4 02	7/3/2024	7:00	arthropods				mixed arthropods
ArtNE4 03	5/16/2024	7:00	arthropods				mixed arthropods
ArtNE4 04	5/16/2024	7:00	arthropods				mixed arthropods
VDS 0 TEST			blank				to verify PFAS free vial
Preservation Used. 1=Ice, 2=HCl, 3=H <sub>2</sub> SO <sub>4</sub> , 4=HNO <sub>3</sub> , 5=NaOH, 6= Other							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Special Instructions/QC Requirements & Comments.							
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:	7/19/2024 0920	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:		

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**Eurofins Environment Testing Northern California**  
880 Riverside Parkway  
West Sacramento, CA 95605  
Phone: 916.373.5600

### Chain of Custody Record

eurofins

Interim Test No.  
ATM 108

Client Contact	Report To	Jean-Luc Cartron or Jon Dunnum	Site Contact:	16-Jul-24	COC No:
Museum of Southwestern Biology University of New Mexico CERIA 83 rm 204 1 University of New Mexico Albuquerque, New Mexico 87131 505 277-9262; 505 977-7716 FAX: Holloman bird/mammal PFAS Project Site: P O #	Tel/Fax: 505 277-9262, 505 977-7716	Analysis Turnaround Time Calendar (C) or Work Days (W) C TAT if different from Below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day	Lab Contact:	Carrier:	3 of 3 COCs
					Job No
					SDG No
					Sample Specific Notes:
NK284441	6/24/2024	7:00 muscle			Agelaius phoeniceus (muscle)
NK284442	6/24/2024	7:00 muscle			Charadrius vociferus (muscle)
NK284443	6/24/2024	7:00 muscle			Recurvirostra americana (muscle)
NK284444	6/24/2024	7:00 muscle			Agelaius phoeniceus (muscle)
NK284445	6/24/2024	7:00 muscle			Agelaius phoeniceus (muscle)
NK284446	6/24/2024	7:00 muscle			Agelaius phoeniceus (muscle)
NK284447	6/24/2024	7:00 muscle			Tyrannus verticalis (muscle)
NK284448	6/24/2024	7:00 muscle			Tyrannus verticalis (muscle)
NK284449	6/24/2024	7:00 muscle			Geothlypis trichas (muscle)
NK284450	6/24/2024	7:00 muscle			Geothlypis trichas (muscle)
NK284451	6/24/2024	7:00 muscle			Geothlypis trichas (muscle)
NK284439	7/11/2024	7:00 tissue			Charadrius vociferus (tissue)
NK284452	7/16/2024	7:00 ground egg			Sayornis saya (egg)
NK284442 V24-20096 liver	6/24/2024	liver			Charadrius vociferus (liver)
NK284443 V24-20097 liver	6/24/2024	7:00 liver			Recurvirostra americana (liver)
NK284444 V24-20103 liver	6/24/2024	7:00 liver			Agelaius phoeniceus (liver)
Preservation Used. 1= Ice, 2= HCl, 3= H <sub>2</sub> SO <sub>4</sub> , 4= HNO <sub>3</sub> , 5= NaOH, 6= Other					
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant      Poison B      Unknown <input type="checkbox"/>			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
Special Instructions/QC Requirements & Comments:					
Relinquished by:	Company:	Date/Time:	Received by:	Company: <i>EETSC</i>	Date/Time: <i>21181214 0920</i>
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

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## Environment Testing

Sacramento Sample  
Receiving Notes (SSRN)Loc. 320  
**113896**Tracking # 77745414 8947

Job. \_\_\_\_\_

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
GSL / OnTrac / Goldstreak / USPS / Other \_\_\_\_\_

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.  
File in the job folder with the COC

<p>Therm. ID: <u>117</u> Corr Factor (+ / -) <u>  </u> °C        Ice <input type="checkbox"/> Wet <input type="checkbox"/> Gel <input type="checkbox"/> Other <input checked="" type="checkbox"/>        Cooler Custody Seal <u>      </u>        Cooler ID: <u>      </u>        Temp Observed: <u>-36.9</u>°C Corrected: <u>-36.9</u>°C        From Temp Blank <input type="checkbox"/> Sample <input checked="" type="checkbox"/></p> <p><b>Opening/Processing The Shipment</b></p> <table> <tr><td>Cooler compromised/tampered with?</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Cooler Temperature is acceptable?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Frozen samples show signs of thaw?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> </table> <p>Initials: <u>MW</u> Date <u>7/18/24</u></p> <p><b>Unpacking/Labeling The Samples</b></p> <table> <tr><td>Containers are not broken or leaking?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Samples compromised/tampered with?</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>COC is complete w/o discrepancies</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Sample custody seal?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr><td>Sample containers have legible labels?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Sample date/times are provided?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Appropriate containers are used?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Sample bottles are completely filled?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Sample preservatives verified?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr><td>Is the Field Sampler's name on COC?</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Samples w/o discrepancies?</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Zero headspace?*</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr><td>Alkalinity has no headspace?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr><td>Perchlorate has headspace? (Methods 314, 331, 6850)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr><td>Multiphasic samples are not present?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table> <p>*Containers requiring zero headspace have no headspace, or bubble &lt; 6 mm (1/4")</p> <p>Initials <u>SO</u> Date <u>7/18/24</u></p>	Cooler compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cooler Temperature is acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Frozen samples show signs of thaw?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Containers are not broken or leaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	COC is complete w/o discrepancies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample custody seal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sample containers have legible labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample date/times are provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate containers are used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample bottles are completely filled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample preservatives verified?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is the Field Sampler's name on COC?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Samples w/o discrepancies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Zero headspace?*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Alkalinity has no headspace?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Perchlorate has headspace? (Methods 314, 331, 6850)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Multiphasic samples are not present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Notes: <u>Pry ice</u></p> <p>Trizma Lot #(s) _____ Ammonium _____ Acetate Lot #(s) _____</p> <p><b>Login Completion</b></p> <table> <tr><td>Receipt Temperature on COC?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>NCM Filed?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Samples received within hold time?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>Log Release checked in TALS?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table> <p>Initials <u>SO</u> Date <u>7/18/24</u></p>	Receipt Temperature on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NCM Filed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Log Release checked in TALS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cooler compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																																																																																						
Cooler Temperature is acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																						
Frozen samples show signs of thaw?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																						
Containers are not broken or leaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																						
Samples compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																																																																																						
COC is complete w/o discrepancies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																																																																																						
Sample custody seal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																						
Sample containers have legible labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																						
Sample date/times are provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																						
Appropriate containers are used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																						
Sample bottles are completely filled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																						
Sample preservatives verified?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																						
Is the Field Sampler's name on COC?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																																																																																						
Samples w/o discrepancies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																																																																																						
Zero headspace?*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																						
Alkalinity has no headspace?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																						
Perchlorate has headspace? (Methods 314, 331, 6850)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																						
Multiphasic samples are not present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																						
Receipt Temperature on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																						
NCM Filed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																						
Samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																						
Log Release checked in TALS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																						

# ANALYTICAL REPORT

## PREPARED FOR

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## JOB DESCRIPTION

UNM\_PFAS in Tissue, Plant & Soil, Holloman

## JOB NUMBER

320-117195-1

# Eurofins Sacramento

## Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northern California, LLC Project Manager.

## Authorization



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# Definitions/Glossary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## Qualifiers

### LCMS

#### Qualifier

#### Qualifier Description

*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
E	Result exceeded calibration range.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
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.

### General Chemistry

#### Qualifier

#### Qualifier Description

H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.

## Glossary

### Abbreviation

#### These commonly used abbreviations may or may not be present in this report.

⊕	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

# Case Narrative

Client: University of New Mexico

Project: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Job ID: 320-117195-1**

**Eurofins Sacramento**

## Job Narrative 320-117195-1

### Receipt

The samples were received on 11/21/2024 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -23.7° C.

### Receipt Exceptions

Client emailed a Chain-of-Custody (COC) that was requested to be used for logging in the samples which had some revisions from the original COC shipped with the samples. Because the original COC was not signed at the time samples were relinquished, it was not included in this report.

Collection times were not provided. Samples were logged in with a default time of 00:00.

### LCMS

Method B/L/T PFAS: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit in most samples. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method B/L/T PFAS: The Isotope Dilution Analyte (IDA) recovery associated with the following samples is below the method recommended limit: Cattail N wet 2 / MSB:DGR:3155\_2 (320-117195-20) and Marsh fleabane / MSB:DGR:3153 (320-117195-22). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the samples.

Method B/L/T PFAS: The "I" qualifier means the transition mass ratio for the indicated analyte was outside the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty.

Method B/L/T PFAS: The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range. These analytes have been qualified; however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range. NK 10442 L / MSB:Mamm:89195 (320-117195-9), NK 180975 L / MSB:Mamm:1268357 (320-117195-13) and Gambusia Wet 1 / MSB:DGR:3154\_1 (320-117195-16)

Method B/L/T PFAS: Some results for the following samples were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract: holloman wetland / MSB:DGR:3158 (320-117195-23) and holloman S. Playa / MSB:DGR:3157 (320-117195-24) The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method B/L/T PFAS: The internal standard recovery of 13C2 PFOA was outside control limits in sample Cattail N wet 2 / MSB:DGR:3155\_2 (320-117195-20). The internal standard is not used to quantitate any target analytes, therefore, the data have been reported.

Method B/L/T PFAS: One or more continuing calibration verification (CCV) aliquots associated with analytical batch 320-820819 recovered above the uppercontrol limit for 8:2 FTS. The samples associated with these CCVs were non-detect (ND) for the affected analyte; therefore, the data have been reported.

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

### General Chemistry

Method D2216-92: The reference method does not list a specific holding time for the percent moisture analysis; therefore, the laboratory defaults to an in-house holding time of 14 days. The analysis for the following soil samples was performed outside this time period. holloman wetland / MSB:DGR:3158 (320-117195-23) and holloman S. Playa / MSB:DGR:3157 (320-117195-24)

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

### Organic Prep

Method SHAKE: Several samples were received after the preparation holding time had expired and are qualified accordingly.

Method SHAKE: Elevated reporting limits are provided for the following samples due to limited sample mass provided for extraction: NK 32079 L / MSB:Mamm:75616 (320-117195-2), NK 32043 L / MSB:Mamm:75617 (320-117195-3), NK 32074 L / MSB:Mamm:75618 (320-117195-4), NK 32071 L / MSB:Mamm:75619 (320-117195-5), NK 32039 L / MSB:Mamm:75620 (320-117195-6) and NK 40788 L / MSB:Mamm:89351 (320-117195-11), Dragonfly wetland / MSB:DGR:3159 (320-117195-18), Cattail N wet /

Eurofins Sacramento

## Case Narrative

Client: University of New Mexico

Job ID: 320-117195-1

Project: UNM\_PFAS in Tissue, Plant & Soil, Holloman

### Job ID: 320-117195-1 (Continued)

### Eurofins Sacramento

MSB:DGR:3155\_1 (320-117195-19), Cattail N wet 2 / MSB:DGR:3155\_2 (320-117195-20), and saltceder NE4-4 / MSB:DGR:3156 (320-117195-21).

Method SHAKE: The following samples were discolored following extraction: saltceder NE4-4 / MSB:DGR:3156 (320-117195-21), Marsh fleabane / MSB:DGR:3153 (320-117195-22) and holloman wetland / MSB:DGR:3158 (320-117195-23)

Method SHAKE: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batches 320-818866, 320-818987, 320-819252

Method SHAKE: The following samples were received after the preparation holding time had expired: NK 19893 L / MSB:Mamm:61848 (320-117195-1), NK 32079 L / MSB:Mamm:75616 (320-117195-2), NK 32043 L / MSB:Mamm:75617 (320-117195-3), NK 32074 L / MSB:Mamm:75618 (320-117195-4), NK 32071 L / MSB:Mamm:75619 (320-117195-5), NK 32039 L / MSB:Mamm:75620 (320-117195-6), NK 10447 L / MSB:Mamm:87701 (320-117195-7), NK 10444 L / MSB:Mamm:87702 (320-117195-8), NK 10442 L / MSB:Mamm:89195 (320-117195-9), NK 10446 L / MSB:Mamm:89187 (320-117195-10), NK 40788 L / MSB:Mamm:89351 (320-117195-11), NK 154469 M / MSB:Mamm:198472 (320-117195-12), NK 180975 L / MSB:Mamm:1268357 (320-117195-13), NK 303127 L / MSB:Mamm:326548 (320-117195-14) and NK 310003 L / MSB:Mamm:339709 (320-117195-15).

Method SHAKE: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batches 320-818866, 320-818987, 320-819252

Method SHAKE: Elevated reporting limits are provided for the following sample due to limited sample provided for extraction: NK 32079 L / MSB:Mamm:75616 (320-117195-2), NK 32043 L / MSB:Mamm:75617 (320-117195-3), NK 32074 L / MSB:Mamm:75618 (320-117195-4), NK 32071 L / MSB:Mamm:75619 (320-117195-5), NK 32039 L / MSB:Mamm:75620 (320-117195-6) and NK 40788 L / MSB:Mamm:89351 (320-117195-11), Dragonfly wetland / MSB:DGR:3159 (320-117195-18), Cattail N wet / MSB:DGR:3155\_1 (320-117195-19), Cattail N wet 2 / MSB:DGR:3155\_2 (320-117195-20), and saltceder NE4-4 / MSB:DGR:3156 (320-117195-21).

Method SHAKE: The following samples were discolored following extraction: saltceder NE4-4 / MSB:DGR:3156 (320-117195-21), Marsh fleabane / MSB:DGR:3153 (320-117195-22) and holloman wetland / MSB:DGR:3158 (320-117195-23)

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

# Detection Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## **Client Sample ID: NK 19893 L / MSB:Mamm:61848**

## **Lab Sample ID: 320-117195-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	0.16	J H H3	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	16	H I H3	2.7	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	0.57	J H H3	2.7	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	17	H H3	2.7	0.22	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: NK 32079 L / MSB:Mamm:75616**

## **Lab Sample ID: 320-117195-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanoic acid	3.4	H H3	2.6	0.52	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	3.4	H H3	2.6	0.52	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.71	J H H3	2.6	0.45	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	3.9	H H3	2.6	0.38	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	3.9	H H3	2.6	0.38	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	26	I H H3	6.4	0.52	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	6.8	H H3	6.4	0.52	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	32	H H3	6.4	0.52	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.81	J H H3	2.6	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.37	J H H3	2.6	0.26	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: NK 32043 L / MSB:Mamm:75617**

## **Lab Sample ID: 320-117195-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total PFHxS	3.2	H H3	1.9	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	3.2	H H3	1.9	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.63	J H H3	1.9	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	140	I H H3	4.6	0.38	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	5.6	H H3	4.6	0.38	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	140	H H3	4.6	0.38	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: NK 32074 L / MSB:Mamm:75618**

## **Lab Sample ID: 320-117195-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanoic acid	0.97	J H H3	2.2	0.45	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.97	J H H3	2.2	0.45	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.60	J H H3	2.2	0.39	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.34	J H H3	2.2	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	5.1	H H3	2.2	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	4.8	H H3	2.2	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.58	J H H3	2.2	0.41	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	30	H H3	5.6	0.45	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	9.3	H H3	5.6	0.45	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	39	H H3	5.6	0.45	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: NK 32071 L / MSB:Mamm:75619**

## **Lab Sample ID: 320-117195-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanoic acid	9.4	J H H3	13	2.5	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	9.4	J H H3	13	2.5	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	10	J H H3	13	2.2	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	100	H H3	13	1.9	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	100	H H3	13	1.9	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico

Job ID: 320-117195-1

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

## Client Sample ID: NK 32071 L / MSB:Mamm:75619 (Continued)

## Lab Sample ID: 320-117195-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanesulfonic acid (PFHpS)	11	J H H3	13	2.3	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	210	I H H3	31	2.5	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	91	H H3	31	2.5	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	300	H H3	31	2.5	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	1.3	J H H3	13	1.3	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 32039 L / MSB:Mamm:75620

## Lab Sample ID: 320-117195-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	2.2	J H H3	4.8	0.83	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	1.3	J H H3	4.8	0.70	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	1.3	J H H3	4.8	0.70	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	12	H I H3	12	0.97	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	4.8	J H H3	12	0.97	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	17	H H3	12	0.97	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 10447 L / MSB:Mamm:87701

## Lab Sample ID: 320-117195-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	0.11	J H H3	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.18	J H H3	1.1	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.18	J H H3	1.1	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	5.9	H H3	2.7	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	3.3	H H3	2.7	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	9.2	H H3	2.7	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.12	J H H3	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 10444 L / MSB:Mamm:87702

## Lab Sample ID: 320-117195-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.33	J H I H3	1.1	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.19	J H H3	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.18	J H H3	1.1	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.18	J H H3	1.1	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	23	H H3	2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	3.7	H H3	2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	27	H H3	2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.47	J H H3	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.11	J H H3	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 10442 L / MSB:Mamm:89195

## Lab Sample ID: 320-117195-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.31	J H H3	0.97	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.35	J H H3	0.97	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.38	J H H3	0.97	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.21	J H H3	0.97	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.21	J H H3	0.97	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	290	H E I H3	2.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	2.4	H H3	2.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	300	H H3	2.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.49	J H H3	0.97	0.41	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## Client Sample ID: NK 10446 L / MSB:Mamm:89187

## Lab Sample ID: 320-117195-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.41	J H H3	0.98	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.48	J H H3	0.98	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.17	J H H3	0.98	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.22	J H H3	0.98	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.27	J H H3	0.98	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.27	J H H3	0.98	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	88	I H H3	2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	2.5	H H3	2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	90	H H3	2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.61	J H H3	0.98	0.42	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.11	J H H3	0.98	0.099	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 40788 L / MSB:Mamm:89351

## Lab Sample ID: 320-117195-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.84	J H H3	1.9	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	1.1	J H H3	1.9	0.52	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.45	J H H3	1.9	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.35	J H H3	1.9	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.35	J H H3	1.9	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	11	I H H3	4.8	0.39	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	11	H H3	4.8	0.39	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.90	J H H3	1.9	0.82	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 154469 M / MSB:Mamm:198472

## Lab Sample ID: 320-117195-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.49	J H H3	1.1	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	0.70	J H H3	1.1	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.73	J H H3	1.1	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.36	J H H3	1.1	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.22	J H H3	1.1	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.22	J H H3	1.1	0.16	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 180975 L / MSB:Mamm:1268357

## Lab Sample ID: 320-117195-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.3	H H3	0.95	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.99	H H3	0.95	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.11	J H H3	0.95	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	0.40	J H H3	0.95	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.40	J H H3	0.95	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.86	J H H3	0.95	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	2.0	H H3	0.95	0.098	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.49	J H H3	0.95	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.53	J H H3	0.95	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.69	J H H3	0.95	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.69	J H H3	0.95	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	220	H E I H3	2.4	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	4.3	H H3	2.4	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	220	H H3	2.4	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.38	J H H3	0.95	0.095	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 180975 L / MSB:Mamm:1268357  
(Continued)**

**Lab Sample ID: 320-117195-13**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
10:2 FTS	0.19	J H H3	0.95	0.096	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: NK 303127 L / MSB:Mamm:326548**

**Lab Sample ID: 320-117195-14**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	0.59	J H H3	1.1	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	2.7	H H3	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.86	J H H3	1.1	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.58	J H H3	1.1	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.58	J H H3	1.1	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	94	H H3	2.7	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	4.1	H H3	2.7	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	98	H H3	2.7	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.38	J H H3	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.28	J H H3	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: NK 310003 L / MSB:Mamm:339709**

**Lab Sample ID: 320-117195-15**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	0.55	J H H3	1.0	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.55	J H H3	1.0	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	6.4	H H3	1.0	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	3.5	H H3	1.0	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.78	J H H3	1.0	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	3.0	H H3	1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	3.0	H H3	1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.44	J H H3	1.0	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	78	H H3	2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	6.2	H H3	2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	84	H H3	2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: Gambusia Wet 1 / MSB:DGR:3154\_1**

**Lab Sample ID: 320-117195-16**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	0.90		0.90	0.093	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.92		0.90	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.51	J	0.90	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.51	J	0.90	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	110	E I	2.3	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	7.5		2.3	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	110		2.3	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.50	J	0.90	0.38	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.25	J	0.90	0.090	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.29	J	0.90	0.091	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: Gambusia Wet 2 / MSB:DGR:3154\_2**

**Lab Sample ID: 320-117195-17**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorodecanoic acid (PFDA)	0.54	J	1.0	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.53	J	1.0	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.75	J	1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## **Client Sample ID: Gambusia Wet 2 / MSB:DGR:3154\_2 (Continued)**

**Lab Sample ID: 320-117195-17**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorohexanesulfonic acid	0.61	J I	1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	42		2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	2.7		2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	44		2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.13	J	1.0	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.22	J	1.0	0.10	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: Dragonfly wetland / MSB:DGR:3159**

**Lab Sample ID: 320-117195-18**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanesulfonic acid	1.1	J I	14	1.1	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1.1	J	14	1.1	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: Cattail N wet / MSB:DGR:3155\_1**

**Lab Sample ID: 320-117195-19**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	12		2.6	0.61	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	57		2.6	0.45	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	7.8		2.6	0.70	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorooheptanoic acid (PFHpA)	0.56	J	2.6	0.30	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	1.8	J	2.6	0.38	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	1.8	J	2.6	0.38	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	3.8	J	6.4	0.52	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	1.3	J	6.4	0.52	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	5.2	J	6.4	0.52	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	3.2		2.6	1.1	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: Cattail N wet 2 / MSB:DGR:3155\_2**

**Lab Sample ID: 320-117195-20**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	18		1.4	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	35		1.4	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	3.3		1.4	0.39	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorooheptanoic acid (PFHpA)	0.65	J	1.4	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	0.85	J	1.4	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.85	J	1.4	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.29	J I	1.4	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.58	J	1.4	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	3.4		1.4	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	2.8		1.4	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	6.0		3.6	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	1.8	J	3.6	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	7.9		3.6	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	10		1.4	0.61	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: saltceder NE4-4 / MSB:DGR:3156**

**Lab Sample ID: 320-117195-21**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	3.4		1.8	0.49	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorooheptanoic acid (PFHpA)	0.70	J	1.8	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	0.68	J	1.8	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	0.60	J	1.8	0.36	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: saltceder NE4-4 / MSB:DGR:3156  
(Continued)**

**Lab Sample ID: 320-117195-21**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total PFOA	1.3	J	1.8	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.41	J	1.8	0.30	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2.6		1.8	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	2.7		1.8	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	24		1.8	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	22		1.8	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	3.9	J	4.5	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	1.8	J	4.5	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	5.8		4.5	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.18	J	1.8	0.18	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: Marsh fleabane / MSB:DGR:3153**

**Lab Sample ID: 320-117195-22**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.81	J	0.87	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	6.6		0.87	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	1.2		0.87	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.16	J	0.87	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.53	J	0.87	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.53	J	0.87	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	0.65	J	2.2	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	0.37	J	2.2	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1.0	J	2.2	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	2.3		0.87	0.37	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: holloman wetland / MSB:DGR:3158**

**Lab Sample ID: 320-117195-23**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.4		0.18	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	4.7		0.18	0.035	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	1.8		0.18	0.049	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	0.26		0.18	0.049	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	2.1		0.18	0.049	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.84		0.18	0.020	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.51		0.18	0.044	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.36		0.18	0.039	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.2		0.18	0.035	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.1		0.18	0.034	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	2.2		0.18	0.027	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	11		0.18	0.027	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	9.0		0.18	0.027	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.42		0.18	0.045	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	14		0.18	0.025	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.84		0.18	0.032	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.12	J	0.18	0.035	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	53		3.7	0.76	ug/Kg	20		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	25		3.7	0.57	ug/Kg	20		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	120		3.7	0.79	ug/Kg	20		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: holloman wetland / MSB:DGR:3158  
(Continued)**

**Lab Sample ID: 320-117195-23**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Br-Perfluorooctanesulfonic acid - DL	23		3.7	0.79	ug/Kg	20		B/L/T PFAS	Total/NA
Total PFOS - DL	140		3.7	0.79	ug/Kg	20		B/L/T PFAS	Total/NA

**Client Sample ID: holloman S. Playa / MSB:DGR:3157**

**Lab Sample ID: 320-117195-24**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	13		0.18	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	4.4		0.18	0.020	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.095	J	0.18	0.044	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.068	J	0.18	0.038	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	6.1		0.18	0.025	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.81		0.18	0.032	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PPPeA) - DL	59		18	3.7	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	180		18	2.8	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	83		18	3.5	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid - DL	110		18	4.8	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid - DL	19		18	4.8	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	130		18	4.8	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	23		18	3.5	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPPeS) - DL	60		18	3.4	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	170		18	2.6	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	830		18	2.6	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	660		18	2.6	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	17	J	18	4.5	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	74		18	3.9	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	130		18	3.9	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	200		18	3.9	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 19893 L / MSB:Mamm:61848**

**Lab Sample ID: 320-117195-1**

**Matrix: Tissue**

Date Collected: 05/11/89 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	1.1	0.26	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	1.1	0.30	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	1.1	0.13	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
L-Perfluoroctanoic acid	ND	H H3	1.1	0.22	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Br-Perfluoroctanoic acid	ND	H H3	1.1	0.22	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Total PFOA	ND	H H3	1.1	0.22	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Perfluorononanoic acid (PFNA)	ND	H H3	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.16</b>	<b>J H H3</b>	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	1.1	0.30	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	1.1	0.20	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Br-Perfluorohexanesulfonic acid	ND	H H3	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Total PFHxS	ND	H H3	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
L-Perfluorohexanesulfonic acid	ND	H H3	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	1.1	0.20	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>16</b>	<b>H I H3</b>	2.7	0.22	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.57</b>	<b>J H H3</b>	2.7	0.22	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
<b>Total PFOS</b>	<b>17</b>	<b>H H3</b>	2.7	0.22	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
4:2 FTS	ND	H H3	1.1	0.29	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
6:2 FTS	ND	H H3	1.1	0.47	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
8:2 FTS	ND	H H3	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
10:2 FTS	ND	H H3	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 16:44		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	82		25 - 150			12/03/24 04:26	12/09/24 16:44		1
13C5 PFPeA	87		25 - 150			12/03/24 04:26	12/09/24 16:44		1
13C2 PFHxA	106		25 - 150			12/03/24 04:26	12/09/24 16:44		1
13C4 PFHpA	105		25 - 150			12/03/24 04:26	12/09/24 16:44		1
13C4 PFOA	93		25 - 150			12/03/24 04:26	12/09/24 16:44		1
13C5 PFNA	114		25 - 150			12/03/24 04:26	12/09/24 16:44		1
13C2 PFDA	114		25 - 150			12/03/24 04:26	12/09/24 16:44		1
13C2 PFUnA	140		25 - 150			12/03/24 04:26	12/09/24 16:44		1
13C3 PFBS	97		25 - 150			12/03/24 04:26	12/09/24 16:44		1
18O2 PFHxS	116		25 - 150			12/03/24 04:26	12/09/24 16:44		1
13C4 PFOS	105		25 - 150			12/03/24 04:26	12/09/24 16:44		1
M2-4:2 FTS	102		25 - 150			12/03/24 04:26	12/09/24 16:44		1
M2-6:2 FTS	126		25 - 150			12/03/24 04:26	12/09/24 16:44		1
M2-8:2 FTS	121		25 - 150			12/03/24 04:26	12/09/24 16:44		1
13C2 10:2 FTS	731	*5+	25 - 150			12/03/24 04:26	12/09/24 16:44		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 32079 L / MSB:Mamm:75616**

**Lab Sample ID: 320-117195-2**

**Matrix: Tissue**

Date Collected: 07/17/94 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	2.6	0.61	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	2.6	0.45	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	2.6	0.70	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	2.6	0.30	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
<b>L-Perfluoroctanoic acid</b>	<b>3.4</b>	<b>H H3</b>	2.6	0.52	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
Br-Perfluoroctanoic acid	ND	H H3	2.6	0.52	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
<b>Total PFOA</b>	<b>3.4</b>	<b>J H H3</b>	2.6	0.52	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.71</b>	<b>J H H3</b>	2.6	0.45	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
Perfluorodecanoic acid (PFDA)	ND	H H3	2.6	0.26	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	2.6	0.70	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	2.6	0.44	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	2.6	0.46	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
Br-Perfluorohexanesulfonic acid	ND	H H3	2.6	0.38	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
<b>Total PFHxS</b>	<b>3.9</b>	<b>H H3</b>	2.6	0.38	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>3.9</b>	<b>H H3</b>	2.6	0.38	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	2.6	0.47	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>26</b>	<b>I H H3</b>	6.4	0.52	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>6.8</b>	<b>H H3</b>	6.4	0.52	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
<b>Total PFOS</b>	<b>32</b>	<b>H H3</b>	6.4	0.52	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
4:2 FTS	ND	H H3	2.6	0.68	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
6:2 FTS	ND	H H3	2.6	1.1	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
<b>8:2 FTS</b>	<b>0.81</b>	<b>J H H3</b>	2.6	0.26	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
<b>10:2 FTS</b>	<b>0.37</b>	<b>J H H3</b>	2.6	0.26	ug/Kg	12/03/24 04:26	12/09/24 17:03		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	107		25 - 150			12/03/24 04:26	12/09/24 17:03		1
13C5 PFPeA	88		25 - 150			12/03/24 04:26	12/09/24 17:03		1
13C2 PFHxA	116		25 - 150			12/03/24 04:26	12/09/24 17:03		1
13C4 PFHpA	118		25 - 150			12/03/24 04:26	12/09/24 17:03		1
13C4 PFOA	96		25 - 150			12/03/24 04:26	12/09/24 17:03		1
13C5 PFNA	113		25 - 150			12/03/24 04:26	12/09/24 17:03		1
13C2 PFDA	118		25 - 150			12/03/24 04:26	12/09/24 17:03		1
13C2 PFUnA	105		25 - 150			12/03/24 04:26	12/09/24 17:03		1
13C3 PFBS	102		25 - 150			12/03/24 04:26	12/09/24 17:03		1
18O2 PFHxS	119		25 - 150			12/03/24 04:26	12/09/24 17:03		1
13C4 PFOS	108		25 - 150			12/03/24 04:26	12/09/24 17:03		1
M2-4:2 FTS	147		25 - 150			12/03/24 04:26	12/09/24 17:03		1
M2-6:2 FTS	143		25 - 150			12/03/24 04:26	12/09/24 17:03		1
M2-8:2 FTS	113		25 - 150			12/03/24 04:26	12/09/24 17:03		1
13C2 10:2 FTS	608	*5+	25 - 150			12/03/24 04:26	12/09/24 17:03		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 32043 L / MSB:Mamm:75617**

**Lab Sample ID: 320-117195-3**

**Matrix: Tissue**

Date Collected: 06/12/94 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	1.9	0.44	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	1.9	0.32	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	1.9	0.51	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	1.9	0.21	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
L-Perfluoroctanoic acid	ND	H H3	1.9	0.37	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
Br-Perfluoroctanoic acid	ND	H H3	1.9	0.37	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
Total PFOA	ND	H H3	1.9	0.37	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
Perfluorononanoic acid (PFNA)	ND	H H3	1.9	0.32	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
Perfluorodecanoic acid (PFDA)	ND	H H3	1.9	0.19	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	1.9	0.50	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	1.9	0.31	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	1.9	0.34	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
Br-Perfluorohexanesulfonic acid	ND	H H3	1.9	0.27	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
<b>Total PFHxS</b>	<b>3.2</b>	<b>H H3</b>	<b>1.9</b>	<b>0.27</b>	<b>ug/Kg</b>	<b>12/03/24 04:26</b>	<b>12/09/24 17:23</b>	<b>1</b>	<b>12</b>
<b>L-Perfluorohexanesulfonic acid</b>	<b>3.2</b>	<b>H H3</b>	<b>1.9</b>	<b>0.27</b>	<b>ug/Kg</b>	<b>12/03/24 04:26</b>	<b>12/09/24 17:23</b>	<b>1</b>	
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.63</b>	<b>J H H3</b>	<b>1.9</b>	<b>0.34</b>	<b>ug/Kg</b>	<b>12/03/24 04:26</b>	<b>12/09/24 17:23</b>	<b>1</b>	<b>13</b>
<b>L-Perfluoroctanesulfonic acid</b>	<b>140</b>	<b>I H H3</b>	<b>4.6</b>	<b>0.38</b>	<b>ug/Kg</b>	<b>12/03/24 04:26</b>	<b>12/09/24 17:23</b>	<b>1</b>	
<b>Br-Perfluoroctanesulfonic acid</b>	<b>5.6</b>	<b>H H3</b>	<b>4.6</b>	<b>0.38</b>	<b>ug/Kg</b>	<b>12/03/24 04:26</b>	<b>12/09/24 17:23</b>	<b>1</b>	<b>14</b>
<b>Total PFOS</b>	<b>140</b>	<b>H H3</b>	<b>4.6</b>	<b>0.38</b>	<b>ug/Kg</b>	<b>12/03/24 04:26</b>	<b>12/09/24 17:23</b>	<b>1</b>	
4:2 FTS	ND	H H3	1.9	0.49	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
6:2 FTS	ND	H H3	1.9	0.79	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
8:2 FTS	ND	H H3	1.9	0.19	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
10:2 FTS	ND	H H3	1.9	0.19	ug/Kg	12/03/24 04:26	12/09/24 17:23		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	107		25 - 150			12/03/24 04:26	12/09/24 17:23		1
13C5 PFPeA	107		25 - 150			12/03/24 04:26	12/09/24 17:23		1
13C2 PFHxA	129		25 - 150			12/03/24 04:26	12/09/24 17:23		1
13C4 PFHpA	112		25 - 150			12/03/24 04:26	12/09/24 17:23		1
13C4 PFOA	91		25 - 150			12/03/24 04:26	12/09/24 17:23		1
13C5 PFNA	108		25 - 150			12/03/24 04:26	12/09/24 17:23		1
13C2 PFDA	117		25 - 150			12/03/24 04:26	12/09/24 17:23		1
13C2 PFUnA	121		25 - 150			12/03/24 04:26	12/09/24 17:23		1
13C3 PFBS	97		25 - 150			12/03/24 04:26	12/09/24 17:23		1
18O2 PFHxS	123		25 - 150			12/03/24 04:26	12/09/24 17:23		1
13C4 PFOS	113		25 - 150			12/03/24 04:26	12/09/24 17:23		1
M2-4:2 FTS	147		25 - 150			12/03/24 04:26	12/09/24 17:23		1
M2-6:2 FTS	73		25 - 150			12/03/24 04:26	12/09/24 17:23		1
M2-8:2 FTS	115		25 - 150			12/03/24 04:26	12/09/24 17:23		1
13C2 10:2 FTS	497	*5+	25 - 150			12/03/24 04:26	12/09/24 17:23		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 32074 L / MSB:Mamm:75618**

**Lab Sample ID: 320-117195-4**

**Matrix: Tissue**

Date Collected: 07/16/94 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	2.2	0.52	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	2.2	0.39	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	2.2	0.61	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	2.2	0.26	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
<b>L-Perfluorooctanoic acid</b>	<b>0.97</b>	<b>J H H3</b>	2.2	0.45	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
Br-Perfluorooctanoic acid	ND	H H3	2.2	0.45	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
<b>Total PFOA</b>	<b>0.97</b>	<b>J H H3</b>	2.2	0.45	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.60</b>	<b>J H H3</b>	2.2	0.39	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
Perfluorodecanoic acid (PFDA)	ND	H H3	2.2	0.23	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	2.2	0.60	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	2.2	0.38	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	2.2	0.40	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
<b>Br-Perfluorohexamersulfonic acid</b>	<b>0.34</b>	<b>J H H3</b>	2.2	0.33	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
<b>Total PFHxS</b>	<b>5.1</b>	<b>J H H3</b>	2.2	0.33	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
<b>L-Perfluorohexamersulfonic acid</b>	<b>4.8</b>	<b>J H H3</b>	2.2	0.33	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.58</b>	<b>J H H3</b>	2.2	0.41	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
<b>L-Perfluorooctanesulfonic acid</b>	<b>30</b>	<b>J H H3</b>	5.6	0.45	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
<b>Br-Perfluorooctanesulfonic acid</b>	<b>9.3</b>	<b>J H H3</b>	5.6	0.45	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
<b>Total PFOS</b>	<b>39</b>	<b>J H H3</b>	5.6	0.45	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
4:2 FTS	ND	H H3	2.2	0.59	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
6:2 FTS	ND	H H3	2.2	0.94	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
8:2 FTS	ND	H H3	2.2	0.22	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
10:2 FTS	ND	H H3	2.2	0.22	ug/Kg	12/03/24 04:26	12/09/24 17:42		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	88		25 - 150			12/03/24 04:26	12/09/24 17:42		1
13C5 PFPeA	81		25 - 150			12/03/24 04:26	12/09/24 17:42		1
13C2 PFHxA	112		25 - 150			12/03/24 04:26	12/09/24 17:42		1
13C4 PFHpA	93		25 - 150			12/03/24 04:26	12/09/24 17:42		1
13C4 PFOA	93		25 - 150			12/03/24 04:26	12/09/24 17:42		1
13C5 PFNA	97		25 - 150			12/03/24 04:26	12/09/24 17:42		1
13C2 PFDA	95		25 - 150			12/03/24 04:26	12/09/24 17:42		1
13C2 PFUnA	90		25 - 150			12/03/24 04:26	12/09/24 17:42		1
13C3 PFBS	78		25 - 150			12/03/24 04:26	12/09/24 17:42		1
18O2 PFHxS	103		25 - 150			12/03/24 04:26	12/09/24 17:42		1
13C4 PFOS	90		25 - 150			12/03/24 04:26	12/09/24 17:42		1
M2-4:2 FTS	111		25 - 150			12/03/24 04:26	12/09/24 17:42		1
M2-6:2 FTS	132		25 - 150			12/03/24 04:26	12/09/24 17:42		1
M2-8:2 FTS	100		25 - 150			12/03/24 04:26	12/09/24 17:42		1
13C2 10:2 FTS	549	*5+	25 - 150			12/03/24 04:26	12/09/24 17:42		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 32071 L / MSB:Mamm:75619**

**Lab Sample ID: 320-117195-5**

**Matrix: Tissue**

Date Collected: 07/16/94 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	13	3.0	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	13	2.2	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	13	3.4	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	13	1.5	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
<b>L-Perfluoroctanoic acid</b>	<b>9.4</b>	<b>J H H3</b>	13	2.5	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
Br-Perfluoroctanoic acid	ND	H H3	13	2.5	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
<b>Total PFOA</b>	<b>9.4</b>	<b>J H H3</b>	13	2.5	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>10</b>	<b>J H H3</b>	13	2.2	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
Perfluorodecanoic acid (PFDA)	ND	H H3	13	1.3	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	13	3.4	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	13	2.1	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	13	2.3	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
Br-Perfluorohexanesulfonic acid	ND	H H3	13	1.9	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
<b>Total PFHxS</b>	<b>100</b>	<b>H H3</b>	13	1.9	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>100</b>	<b>H H3</b>	13	1.9	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>11</b>	<b>J H H3</b>	13	2.3	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>210</b>	<b>I H H3</b>	31	2.5	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>91</b>	<b>H H3</b>	31	2.5	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
<b>Total PFOS</b>	<b>300</b>	<b>H H3</b>	31	2.5	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
4:2 FTS	ND	H H3	13	3.3	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
6:2 FTS	ND	H H3	13	5.3	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
8:2 FTS	ND	H H3	13	1.3	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
<b>10:2 FTS</b>	<b>1.3</b>	<b>J H H3</b>	13	1.3	ug/Kg	12/03/24 04:26	12/09/24 18:01		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	105			25 - 150		12/03/24 04:26	12/09/24 18:01		1
13C5 PFPeA	97			25 - 150		12/03/24 04:26	12/09/24 18:01		1
13C2 PFHxA	118			25 - 150		12/03/24 04:26	12/09/24 18:01		1
13C4 PFHpA	105			25 - 150		12/03/24 04:26	12/09/24 18:01		1
13C4 PFOA	94			25 - 150		12/03/24 04:26	12/09/24 18:01		1
13C5 PFNA	100			25 - 150		12/03/24 04:26	12/09/24 18:01		1
13C2 PFDA	104			25 - 150		12/03/24 04:26	12/09/24 18:01		1
13C2 PFUnA	91			25 - 150		12/03/24 04:26	12/09/24 18:01		1
13C3 PFBS	84			25 - 150		12/03/24 04:26	12/09/24 18:01		1
18O2 PFHxS	113			25 - 150		12/03/24 04:26	12/09/24 18:01		1
13C4 PFOS	96			25 - 150		12/03/24 04:26	12/09/24 18:01		1
M2-4:2 FTS	95			25 - 150		12/03/24 04:26	12/09/24 18:01		1
M2-6:2 FTS	139			25 - 150		12/03/24 04:26	12/09/24 18:01		1
M2-8:2 FTS	105			25 - 150		12/03/24 04:26	12/09/24 18:01		1
13C2 10:2 FTS	326	*5+		25 - 150		12/03/24 04:26	12/09/24 18:01		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 32039 L / MSB:Mamm:75620**

**Lab Sample ID: 320-117195-6**

**Matrix: Tissue**

Date Collected: 06/12/94 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	4.8	1.1	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	4.8	0.83	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	4.8	1.3	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	4.8	0.55	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
L-Perfluoroctanoic acid	ND	H H3	4.8	0.96	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
Br-Perfluoroctanoic acid	ND	H H3	4.8	0.96	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
Total PFOA	ND	H H3	4.8	0.96	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>2.2</b>	<b>J H H3</b>	4.8	0.83	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
Perfluorodecanoic acid (PFDA)	ND	H H3	4.8	0.49	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	4.8	1.3	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	4.8	0.81	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	4.8	0.86	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
Br-Perfluorohexanesulfonic acid	ND	H H3	4.8	0.70	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
<b>Total PFHxS</b>	<b>1.3</b>	<b>J H H3</b>	4.8	0.70	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>1.3</b>	<b>J H H3</b>	4.8	0.70	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	4.8	0.88	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>12</b>	<b>H I H3</b>	12	0.97	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>4.8</b>	<b>J H H3</b>	12	0.97	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
<b>Total PFOS</b>	<b>17</b>	<b>H H3</b>	12	0.97	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
4:2 FTS	ND	H H3	4.8	1.3	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
6:2 FTS	ND	H H3	4.8	2.0	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
8:2 FTS	ND	H H3	4.8	0.48	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
10:2 FTS	ND	H H3	4.8	0.48	ug/Kg	12/03/24 04:26	12/09/24 18:21		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	104		25 - 150			12/03/24 04:26	12/09/24 18:21		1
13C5 PFPeA	105		25 - 150			12/03/24 04:26	12/09/24 18:21		1
13C2 PFHxA	119		25 - 150			12/03/24 04:26	12/09/24 18:21		1
13C4 PFHpA	105		25 - 150			12/03/24 04:26	12/09/24 18:21		1
13C4 PFOA	92		25 - 150			12/03/24 04:26	12/09/24 18:21		1
13C5 PFNA	109		25 - 150			12/03/24 04:26	12/09/24 18:21		1
13C2 PFDA	110		25 - 150			12/03/24 04:26	12/09/24 18:21		1
13C2 PFUnA	91		25 - 150			12/03/24 04:26	12/09/24 18:21		1
13C3 PFBS	90		25 - 150			12/03/24 04:26	12/09/24 18:21		1
18O2 PFHxS	113		25 - 150			12/03/24 04:26	12/09/24 18:21		1
13C4 PFOS	109		25 - 150			12/03/24 04:26	12/09/24 18:21		1
M2-4:2 FTS	127		25 - 150			12/03/24 04:26	12/09/24 18:21		1
M2-6:2 FTS	156	*5+	25 - 150			12/03/24 04:26	12/09/24 18:21		1
M2-8:2 FTS	115		25 - 150			12/03/24 04:26	12/09/24 18:21		1
13C2 10:2 FTS	299	*5+	25 - 150			12/03/24 04:26	12/09/24 18:21		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 10447 L / MSB:Mamm:87701**

**Lab Sample ID: 320-117195-7**

**Matrix: Tissue**

Date Collected: 11/26/94 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	1.1	0.26	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	1.1	0.30	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	1.1	0.13	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
L-Perfluoroctanoic acid	ND	H H3	1.1	0.22	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
Br-Perfluoroctanoic acid	ND	H H3	1.1	0.22	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
Total PFOA	ND	H H3	1.1	0.22	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
Perfluorononanoic acid (PFNA)	ND	H H3	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.11</b>	<b>J H H3</b>	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	1.1	0.30	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	1.1	0.18	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	1.1	0.20	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
Br-Perfluorohexanesulfonic acid	ND	H H3	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
<b>Total PFHxS</b>	<b>0.18</b>	<b>J H H3</b>	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.18</b>	<b>J H H3</b>	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	1.1	0.20	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>5.9</b>	<b>H H3</b>	2.7	0.22	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>3.3</b>	<b>H H3</b>	2.7	0.22	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
<b>Total PFOS</b>	<b>9.2</b>	<b>H H3</b>	2.7	0.22	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
4:2 FTS	ND	H H3	1.1	0.29	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
6:2 FTS	ND	H H3	1.1	0.46	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
8:2 FTS	ND	H H3	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
<b>10:2 FTS</b>	<b>0.12</b>	<b>J H H3</b>	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 18:40		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	81		25 - 150			12/03/24 04:26	12/09/24 18:40		1
13C5 PFPeA	101		25 - 150			12/03/24 04:26	12/09/24 18:40		1
13C2 PFHxA	113		25 - 150			12/03/24 04:26	12/09/24 18:40		1
13C4 PFHpA	114		25 - 150			12/03/24 04:26	12/09/24 18:40		1
13C4 PFOA	97		25 - 150			12/03/24 04:26	12/09/24 18:40		1
13C5 PFNA	108		25 - 150			12/03/24 04:26	12/09/24 18:40		1
13C2 PFDA	139		25 - 150			12/03/24 04:26	12/09/24 18:40		1
13C2 PFUnA	127		25 - 150			12/03/24 04:26	12/09/24 18:40		1
13C3 PFBS	97		25 - 150			12/03/24 04:26	12/09/24 18:40		1
18O2 PFHxS	118		25 - 150			12/03/24 04:26	12/09/24 18:40		1
13C4 PFOS	106		25 - 150			12/03/24 04:26	12/09/24 18:40		1
M2-4:2 FTS	201	*5+	25 - 150			12/03/24 04:26	12/09/24 18:40		1
M2-6:2 FTS	184	*5+	25 - 150			12/03/24 04:26	12/09/24 18:40		1
M2-8:2 FTS	299	*5+	25 - 150			12/03/24 04:26	12/09/24 18:40		1
13C2 10:2 FTS	579	*5+	25 - 150			12/03/24 04:26	12/09/24 18:40		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 10444 L / MSB:Mamm:87702**

**Lab Sample ID: 320-117195-8**

**Matrix: Tissue**

Date Collected: 11/26/94 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	1.1	0.25	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	1.1	0.18	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.33</b>	<b>J H1H3</b>	1.1	0.29	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	1.1	0.12	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
L-Perfluoroctanoic acid	ND	H H3	1.1	0.21	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
Br-Perfluoroctanoic acid	ND	H H3	1.1	0.21	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
Total PFOA	ND	H H3	1.1	0.21	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
Perfluorononanoic acid (PFNA)	ND	H H3	1.1	0.18	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.19</b>	<b>J H H3</b>	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	1.1	0.29	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	1.1	0.18	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
Br-Perfluorohexanesulfonic acid	ND	H H3	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
<b>Total PFHxS</b>	<b>0.18</b>	<b>J H H3</b>	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.18</b>	<b>J H H3</b>	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>23</b>	<b>H H3</b>	2.6	0.21	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>3.7</b>	<b>H H3</b>	2.6	0.21	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
<b>Total PFOS</b>	<b>27</b>	<b>H H3</b>	2.6	0.21	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
4:2 FTS	ND	H H3	1.1	0.28	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
6:2 FTS	ND	H H3	1.1	0.45	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
<b>8:2 FTS</b>	<b>0.47</b>	<b>J H H3</b>	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
<b>10:2 FTS</b>	<b>0.11</b>	<b>J H H3</b>	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 19:19		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	77		25 - 150			12/03/24 04:26	12/09/24 19:19		1
13C5 PFPeA	94		25 - 150			12/03/24 04:26	12/09/24 19:19		1
13C2 PFHxA	107		25 - 150			12/03/24 04:26	12/09/24 19:19		1
13C4 PFHpA	110		25 - 150			12/03/24 04:26	12/09/24 19:19		1
13C4 PFOA	93		25 - 150			12/03/24 04:26	12/09/24 19:19		1
13C5 PFNA	102		25 - 150			12/03/24 04:26	12/09/24 19:19		1
13C2 PFDA	128		25 - 150			12/03/24 04:26	12/09/24 19:19		1
13C2 PFUnA	115		25 - 150			12/03/24 04:26	12/09/24 19:19		1
13C3 PFBS	87		25 - 150			12/03/24 04:26	12/09/24 19:19		1
18O2 PFHxS	108		25 - 150			12/03/24 04:26	12/09/24 19:19		1
13C4 PFOS	94		25 - 150			12/03/24 04:26	12/09/24 19:19		1
M2-4:2 FTS	153	*5+	25 - 150			12/03/24 04:26	12/09/24 19:19		1
M2-6:2 FTS	136		25 - 150			12/03/24 04:26	12/09/24 19:19		1
M2-8:2 FTS	270	*5+	25 - 150			12/03/24 04:26	12/09/24 19:19		1
13C2 10:2 FTS	446	*5+	25 - 150			12/03/24 04:26	12/09/24 19:19		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 10442 L / MSB:Mamm:89195**

**Lab Sample ID: 320-117195-9**

**Matrix: Tissue**

Date Collected: 11/07/94 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	0.97	0.23	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.31</b>	<b>J H H3</b>	0.97	0.17	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.35</b>	<b>J H H3</b>	0.97	0.27	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	0.97	0.11	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
L-Perfluoroctanoic acid	ND	H H3	0.97	0.20	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
Br-Perfluoroctanoic acid	ND	H H3	0.97	0.20	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
Total PFOA	ND	H H3	0.97	0.20	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
Perfluorononanoic acid (PFNA)	ND	H H3	0.97	0.17	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.38</b>	<b>J H H3</b>	0.97	0.10	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	0.97	0.26	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	0.97	0.17	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	0.97	0.18	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
Br-Perfluorohexanesulfonic acid	ND	H H3	0.97	0.14	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
<b>Total PFHxS</b>	<b>0.21</b>	<b>J H H3</b>	0.97	0.14	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.21</b>	<b>J H H3</b>	0.97	0.14	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	0.97	0.18	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>290</b>	<b>H E I H3</b>	2.4	0.20	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>2.4</b>	<b>H H3</b>	2.4	0.20	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
<b>Total PFOS</b>	<b>300</b>	<b>H H3</b>	2.4	0.20	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
4:2 FTS	ND	H H3	0.97	0.26	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
<b>6:2 FTS</b>	<b>0.49</b>	<b>J H H3</b>	0.97	0.41	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
8:2 FTS	ND	H H3	0.97	0.097	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
10:2 FTS	ND	H H3	0.97	0.098	ug/Kg	12/03/24 04:26	12/09/24 19:38		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	42		25 - 150			12/03/24 04:26	12/09/24 19:38		1
13C5 PFPeA	73		25 - 150			12/03/24 04:26	12/09/24 19:38		1
13C2 PFHxA	111		25 - 150			12/03/24 04:26	12/09/24 19:38		1
13C4 PFHpA	103		25 - 150			12/03/24 04:26	12/09/24 19:38		1
13C4 PFOA	91		25 - 150			12/03/24 04:26	12/09/24 19:38		1
13C5 PFNA	86		25 - 150			12/03/24 04:26	12/09/24 19:38		1
13C2 PFDA	100		25 - 150			12/03/24 04:26	12/09/24 19:38		1
13C2 PFUnA	104		25 - 150			12/03/24 04:26	12/09/24 19:38		1
13C3 PFBS	78		25 - 150			12/03/24 04:26	12/09/24 19:38		1
18O2 PFHxS	109		25 - 150			12/03/24 04:26	12/09/24 19:38		1
13C4 PFOS	99		25 - 150			12/03/24 04:26	12/09/24 19:38		1
M2-4:2 FTS	134		25 - 150			12/03/24 04:26	12/09/24 19:38		1
M2-6:2 FTS	125		25 - 150			12/03/24 04:26	12/09/24 19:38		1
M2-8:2 FTS	129		25 - 150			12/03/24 04:26	12/09/24 19:38		1
13C2 10:2 FTS	238	*5+	25 - 150			12/03/24 04:26	12/09/24 19:38		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 10446 L / MSB:Mamm:89187**

**Lab Sample ID: 320-117195-10**

**Matrix: Tissue**

Date Collected: 11/25/94 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	0.98	0.23	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.41</b>	<b>J H H3</b>	0.98	0.17	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.48</b>	<b>J H H3</b>	0.98	0.27	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	0.98	0.11	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
L-Perfluoroctanoic acid	ND	H H3	0.98	0.20	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
Br-Perfluoroctanoic acid	ND	H H3	0.98	0.20	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
Total PFOA	ND	H H3	0.98	0.20	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
Perfluorononanoic acid (PFNA)	ND	H H3	0.98	0.17	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.17</b>	<b>J H H3</b>	0.98	0.10	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	0.98	0.27	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.22</b>	<b>J H H3</b>	0.98	0.17	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	0.98	0.18	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
Br-Perfluorohexanesulfonic acid	ND	H H3	0.98	0.15	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
<b>Total PFHxS</b>	<b>0.27</b>	<b>J H H3</b>	0.98	0.15	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.27</b>	<b>J H H3</b>	0.98	0.15	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	0.98	0.18	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>88</b>	<b>I H H3</b>	2.5	0.20	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>2.5</b>	<b>H H3</b>	2.5	0.20	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
<b>Total PFOS</b>	<b>90</b>	<b>H H3</b>	2.5	0.20	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
4:2 FTS	ND	H H3	0.98	0.26	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
<b>6:2 FTS</b>	<b>0.61</b>	<b>J H H3</b>	0.98	0.42	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
8:2 FTS	ND	H H3	0.98	0.098	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
<b>10:2 FTS</b>	<b>0.11</b>	<b>J H H3</b>	0.98	0.099	ug/Kg	12/03/24 04:26	12/09/24 19:58		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	67		25 - 150			12/03/24 04:26	12/09/24 19:58		1
13C5 PFPeA	89		25 - 150			12/03/24 04:26	12/09/24 19:58		1
13C2 PFHxA	108		25 - 150			12/03/24 04:26	12/09/24 19:58		1
13C4 PFHpA	101		25 - 150			12/03/24 04:26	12/09/24 19:58		1
13C4 PFOA	89		25 - 150			12/03/24 04:26	12/09/24 19:58		1
13C5 PFNA	100		25 - 150			12/03/24 04:26	12/09/24 19:58		1
13C2 PFDA	112		25 - 150			12/03/24 04:26	12/09/24 19:58		1
13C2 PFUnA	103		25 - 150			12/03/24 04:26	12/09/24 19:58		1
13C3 PFBS	81		25 - 150			12/03/24 04:26	12/09/24 19:58		1
18O2 PFHxS	105		25 - 150			12/03/24 04:26	12/09/24 19:58		1
13C4 PFOS	103		25 - 150			12/03/24 04:26	12/09/24 19:58		1
M2-4:2 FTS	128		25 - 150			12/03/24 04:26	12/09/24 19:58		1
M2-6:2 FTS	151	*5+	25 - 150			12/03/24 04:26	12/09/24 19:58		1
M2-8:2 FTS	115		25 - 150			12/03/24 04:26	12/09/24 19:58		1
13C2 10:2 FTS	305	*5+	25 - 150			12/03/24 04:26	12/09/24 19:58		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 40788 L / MSB:Mamm:89351**

**Lab Sample ID: 320-117195-11**

**Matrix: Tissue**

Date Collected: 06/18/97 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	1.9	0.45	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.84</b>	<b>J H H3</b>	1.9	0.34	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>1.1</b>	<b>J H H3</b>	1.9	0.52	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	1.9	0.22	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
L-Perfluoroctanoic acid	ND	H H3	1.9	0.39	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
Br-Perfluoroctanoic acid	ND	H H3	1.9	0.39	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
Total PFOA	ND	H H3	1.9	0.39	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
Perfluorononanoic acid (PFNA)	ND	H H3	1.9	0.34	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
Perfluorodecanoic acid (PFDA)	ND	H H3	1.9	0.20	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	1.9	0.52	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.45</b>	<b>J H H3</b>	1.9	0.33	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	1.9	0.35	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
Br-Perfluorohexanesulfonic acid	ND	H H3	1.9	0.28	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
<b>Total PFHxS</b>	<b>0.35</b>	<b>J H H3</b>	1.9	0.28	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.35</b>	<b>J H H3</b>	1.9	0.28	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	1.9	0.36	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>11</b>	<b>I H H3</b>	4.8	0.39	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
Br-Perfluoroctanesulfonic acid	ND	H H3	4.8	0.39	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
<b>Total PFOS</b>	<b>11</b>	<b>H H3</b>	4.8	0.39	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
4:2 FTS	ND	H H3	1.9	0.51	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
<b>6:2 FTS</b>	<b>0.90</b>	<b>J H H3</b>	1.9	0.82	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
8:2 FTS	ND	H H3	1.9	0.19	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
10:2 FTS	ND	H H3	1.9	0.19	ug/Kg	12/03/24 04:26	12/09/24 20:17		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	81		25 - 150			12/03/24 04:26	12/09/24 20:17		1
13C5 PFPeA	89		25 - 150			12/03/24 04:26	12/09/24 20:17		1
13C2 PFHxA	107		25 - 150			12/03/24 04:26	12/09/24 20:17		1
13C4 PFHpA	103		25 - 150			12/03/24 04:26	12/09/24 20:17		1
13C4 PFOA	100		25 - 150			12/03/24 04:26	12/09/24 20:17		1
13C5 PFNA	96		25 - 150			12/03/24 04:26	12/09/24 20:17		1
13C2 PFDA	102		25 - 150			12/03/24 04:26	12/09/24 20:17		1
13C2 PFUnA	95		25 - 150			12/03/24 04:26	12/09/24 20:17		1
13C3 PFBS	89		25 - 150			12/03/24 04:26	12/09/24 20:17		1
18O2 PFHxS	110		25 - 150			12/03/24 04:26	12/09/24 20:17		1
13C4 PFOS	102		25 - 150			12/03/24 04:26	12/09/24 20:17		1
M2-4:2 FTS	126		25 - 150			12/03/24 04:26	12/09/24 20:17		1
M2-6:2 FTS	146		25 - 150			12/03/24 04:26	12/09/24 20:17		1
M2-8:2 FTS	88		25 - 150			12/03/24 04:26	12/09/24 20:17		1
13C2 10:2 FTS	426	*5+	25 - 150			12/03/24 04:26	12/09/24 20:17		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 154469 M / MSB:Mamm:198472**

**Lab Sample ID: 320-117195-12**

**Matrix: Tissue**

Date Collected: 05/21/08 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.49	J H H3	1.1	0.25	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Perfluoropentanoic acid (PFPeA)	0.70	J H H3	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Perfluorohexanoic acid (PFHxA)	0.73	J H H3	1.1	0.29	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	1.1	0.12	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
L-Perfluoroctanoic acid	ND	H H3	1.1	0.22	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Br-Perfluoroctanoic acid	ND	H H3	1.1	0.22	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Total PFOA	ND	H H3	1.1	0.22	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Perfluorononanoic acid (PFNA)	ND	H H3	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Perfluorodecanoic acid (PFDA)	ND	H H3	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	1.1	0.29	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.36</b>	<b>J H H3</b>	1.1	0.18	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Br-Perfluorohexanesulfonic acid	ND	H H3	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
<b>Total PFHxS</b>	<b>0.22</b>	<b>J H H3</b>	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.22</b>	<b>J H H3</b>	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	1.1	0.20	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
L-Perfluoroctanesulfonic acid	ND	H H3	2.7	0.22	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Br-Perfluoroctanesulfonic acid	ND	H H3	2.7	0.22	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Total PFOS	ND	H H3	2.7	0.22	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
4:2 FTS	ND	H H3	1.1	0.29	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
6:2 FTS	ND	H H3	1.1	0.46	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
8:2 FTS	ND	H H3	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
10:2 FTS	ND	H H3	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 20:37		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	65		25 - 150			12/03/24 04:26	12/09/24 20:37		1
13C5 PFPeA	89		25 - 150			12/03/24 04:26	12/09/24 20:37		1
13C2 PFHxA	119		25 - 150			12/03/24 04:26	12/09/24 20:37		1
13C4 PFHpA	109		25 - 150			12/03/24 04:26	12/09/24 20:37		1
13C4 PFOA	94		25 - 150			12/03/24 04:26	12/09/24 20:37		1
13C5 PFNA	97		25 - 150			12/03/24 04:26	12/09/24 20:37		1
13C2 PFDA	109		25 - 150			12/03/24 04:26	12/09/24 20:37		1
13C2 PFUnA	87		25 - 150			12/03/24 04:26	12/09/24 20:37		1
13C3 PFBS	97		25 - 150			12/03/24 04:26	12/09/24 20:37		1
18O2 PFHxS	112		25 - 150			12/03/24 04:26	12/09/24 20:37		1
13C4 PFOS	99		25 - 150			12/03/24 04:26	12/09/24 20:37		1
M2-4:2 FTS	135		25 - 150			12/03/24 04:26	12/09/24 20:37		1
M2-6:2 FTS	110		25 - 150			12/03/24 04:26	12/09/24 20:37		1
M2-8:2 FTS	102		25 - 150			12/03/24 04:26	12/09/24 20:37		1
13C2 10:2 FTS	545	*5+	25 - 150			12/03/24 04:26	12/09/24 20:37		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 180975 L / MSB:Mamm:1268357**

**Lab Sample ID: 320-117195-13**

Date Collected: 02/27/13 00:00

Matrix: Tissue

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	0.95	0.22	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>1.3</b>	<b>H H3</b>	0.95	0.17	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.99</b>	<b>H H3</b>	0.95	0.26	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.11</b>	<b>J H H3</b>	0.95	0.11	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>L-Perfluoroctanoic acid</b>	<b>0.40</b>	<b>J H H3</b>	0.95	0.19	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
Br-Perfluoroctanoic acid	ND	H H3	0.95	0.19	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>Total PFOA</b>	<b>0.40</b>	<b>J H H3</b>	0.95	0.19	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.86</b>	<b>J H H3</b>	0.95	0.17	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>2.0</b>	<b>H H3</b>	0.95	0.098	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.49</b>	<b>J H H3</b>	0.95	0.26	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.53</b>	<b>J H H3</b>	0.95	0.16	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	0.95	0.17	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
Br-Perfluorohexanesulfonic acid	ND	H H3	0.95	0.14	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>Total PFHxS</b>	<b>0.69</b>	<b>J H H3</b>	0.95	0.14	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.69</b>	<b>J H H3</b>	0.95	0.14	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	0.95	0.18	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>220</b>	<b>H E I H3</b>	2.4	0.19	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>4.3</b>	<b>H H3</b>	2.4	0.19	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>Total PFOS</b>	<b>220</b>	<b>H H3</b>	2.4	0.19	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
4:2 FTS	ND	H H3	0.95	0.25	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
6:2 FTS	ND	H H3	0.95	0.40	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>8:2 FTS</b>	<b>0.38</b>	<b>J H H3</b>	0.95	0.095	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>10:2 FTS</b>	<b>0.19</b>	<b>J H H3</b>	0.95	0.096	ug/Kg	12/03/24 04:26	12/09/24 20:56		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	43		25 - 150			12/03/24 04:26	12/09/24 20:56		1
13C5 PFPeA	86		25 - 150			12/03/24 04:26	12/09/24 20:56		1
13C2 PFHxA	122		25 - 150			12/03/24 04:26	12/09/24 20:56		1
13C4 PFHpA	121		25 - 150			12/03/24 04:26	12/09/24 20:56		1
13C4 PFOA	95		25 - 150			12/03/24 04:26	12/09/24 20:56		1
13C5 PFNA	102		25 - 150			12/03/24 04:26	12/09/24 20:56		1
13C2 PFDA	123		25 - 150			12/03/24 04:26	12/09/24 20:56		1
13C2 PFUnA	133		25 - 150			12/03/24 04:26	12/09/24 20:56		1
13C3 PFBS	105		25 - 150			12/03/24 04:26	12/09/24 20:56		1
18O2 PFHxS	122		25 - 150			12/03/24 04:26	12/09/24 20:56		1
13C4 PFOS	111		25 - 150			12/03/24 04:26	12/09/24 20:56		1
M2-4:2 FTS	199	*5+	25 - 150			12/03/24 04:26	12/09/24 20:56		1
M2-6:2 FTS	124		25 - 150			12/03/24 04:26	12/09/24 20:56		1
M2-8:2 FTS	142		25 - 150			12/03/24 04:26	12/09/24 20:56		1
13C2 10:2 FTS	448	*5+	25 - 150			12/03/24 04:26	12/09/24 20:56		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 303127 L / MSB:Mamm:326548**

**Lab Sample ID: 320-117195-14**

**Matrix: Tissue**

Date Collected: 08/02/17 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	1.1	0.25	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	1.1	0.29	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	1.1	0.12	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
L-Perfluoroctanoic acid	ND	H H3	1.1	0.22	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
Br-Perfluoroctanoic acid	ND	H H3	1.1	0.22	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
Total PFOA	ND	H H3	1.1	0.22	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.59</b>	<b>J H H3</b>	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>2.7</b>	<b>H H3</b>	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.86</b>	<b>J H H3</b>	1.1	0.29	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	1.1	0.18	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	1.1	0.19	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
Br-Perfluorohexanesulfonic acid	ND	H H3	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
<b>Total PFHxS</b>	<b>0.58</b>	<b>J H H3</b>	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.58</b>	<b>J H H3</b>	1.1	0.16	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	1.1	0.20	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>94</b>	<b>H H3</b>	2.7	0.22	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>4.1</b>	<b>H H3</b>	2.7	0.22	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
<b>Total PFOS</b>	<b>98</b>	<b>H H3</b>	2.7	0.22	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
4:2 FTS	ND	H H3	1.1	0.29	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
6:2 FTS	ND	H H3	1.1	0.46	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
<b>8:2 FTS</b>	<b>0.38</b>	<b>J H H3</b>	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
<b>10:2 FTS</b>	<b>0.28</b>	<b>J H H3</b>	1.1	0.11	ug/Kg	12/03/24 04:26	12/09/24 21:15		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	88		25 - 150			12/03/24 04:26	12/09/24 21:15		1
13C5 PFPeA	106		25 - 150			12/03/24 04:26	12/09/24 21:15		1
13C2 PFHxA	119		25 - 150			12/03/24 04:26	12/09/24 21:15		1
13C4 PFHpA	114		25 - 150			12/03/24 04:26	12/09/24 21:15		1
13C4 PFOA	99		25 - 150			12/03/24 04:26	12/09/24 21:15		1
13C5 PFNA	114		25 - 150			12/03/24 04:26	12/09/24 21:15		1
13C2 PFDA	117		25 - 150			12/03/24 04:26	12/09/24 21:15		1
13C2 PFUnA	118		25 - 150			12/03/24 04:26	12/09/24 21:15		1
13C3 PFBS	115		25 - 150			12/03/24 04:26	12/09/24 21:15		1
18O2 PFHxS	126		25 - 150			12/03/24 04:26	12/09/24 21:15		1
13C4 PFOS	112		25 - 150			12/03/24 04:26	12/09/24 21:15		1
M2-4:2 FTS	136		25 - 150			12/03/24 04:26	12/09/24 21:15		1
M2-6:2 FTS	140		25 - 150			12/03/24 04:26	12/09/24 21:15		1
M2-8:2 FTS	119		25 - 150			12/03/24 04:26	12/09/24 21:15		1
13C2 10:2 FTS	580	*5+	25 - 150			12/03/24 04:26	12/09/24 21:15		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 310003 L / MSB:Mamm:339709**

**Lab Sample ID: 320-117195-15**

**Matrix: Tissue**

Date Collected: 06/13/19 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	1.0	0.25	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	1.0	0.18	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	1.0	0.28	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	1.0	0.12	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
<b>L-Perfluoroctanoic acid</b>	<b>0.55</b>	<b>J H H3</b>	1.0	0.21	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
Br-Perfluoroctanoic acid	ND	H H3	1.0	0.21	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
<b>Total PFOA</b>	<b>0.55</b>	<b>J H H3</b>	1.0	0.21	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>6.4</b>	<b>H H3</b>	1.0	0.18	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>3.5</b>	<b>H H3</b>	1.0	0.11	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.78</b>	<b>J H H3</b>	1.0	0.28	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	1.0	0.18	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	1.0	0.19	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
Br-Perfluorohexanesulfonic acid	ND	H H3	1.0	0.15	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
<b>Total PFHxS</b>	<b>3.0</b>	<b>H H3</b>	1.0	0.15	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>3.0</b>	<b>H H3</b>	1.0	0.15	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.44</b>	<b>J H H3</b>	1.0	0.19	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>78</b>	<b>H H3</b>	2.6	0.21	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>6.2</b>	<b>H H3</b>	2.6	0.21	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
<b>Total PFOS</b>	<b>84</b>	<b>H H3</b>	2.6	0.21	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
4:2 FTS	ND	H H3	1.0	0.28	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
6:2 FTS	ND	H H3	1.0	0.44	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
8:2 FTS	ND	H H3	1.0	0.10	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
10:2 FTS	ND	H H3	1.0	0.11	ug/Kg	12/03/24 04:26	12/09/24 21:35		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	63		25 - 150			12/03/24 04:26	12/09/24 21:35		1
13C5 PFPeA	86		25 - 150			12/03/24 04:26	12/09/24 21:35		1
13C2 PFHxA	122		25 - 150			12/03/24 04:26	12/09/24 21:35		1
13C4 PFHpA	109		25 - 150			12/03/24 04:26	12/09/24 21:35		1
13C4 PFOA	94		25 - 150			12/03/24 04:26	12/09/24 21:35		1
13C5 PFNA	104		25 - 150			12/03/24 04:26	12/09/24 21:35		1
13C2 PFDA	108		25 - 150			12/03/24 04:26	12/09/24 21:35		1
13C2 PFUnA	114		25 - 150			12/03/24 04:26	12/09/24 21:35		1
13C3 PFBS	99		25 - 150			12/03/24 04:26	12/09/24 21:35		1
18O2 PFHxS	121		25 - 150			12/03/24 04:26	12/09/24 21:35		1
13C4 PFOS	103		25 - 150			12/03/24 04:26	12/09/24 21:35		1
M2-4:2 FTS	141		25 - 150			12/03/24 04:26	12/09/24 21:35		1
M2-6:2 FTS	109		25 - 150			12/03/24 04:26	12/09/24 21:35		1
M2-8:2 FTS	122		25 - 150			12/03/24 04:26	12/09/24 21:35		1
13C2 10:2 FTS	204	*5+	25 - 150			12/03/24 04:26	12/09/24 21:35		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: Gambusia Wet 1 / MSB:DGR:3154\_1**

**Lab Sample ID: 320-117195-16**

**Matrix: Tissue**

Date Collected: 10/02/24 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.90	0.21	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
Perfluoropentanoic acid (PFPeA)	ND		0.90	0.16	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
Perfluorohexanoic acid (PFHxA)	ND		0.90	0.25	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
Perfluoroheptanoic acid (PFHpA)	ND		0.90	0.10	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
L-Perfluoroctanoic acid	ND		0.90	0.18	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
Br-Perfluoroctanoic acid	ND		0.90	0.18	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
Total PFOA	ND		0.90	0.18	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
Perfluorononanoic acid (PFNA)	ND		0.90	0.16	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.90</b>		0.90	0.093	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.92</b>		0.90	0.25	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.90	0.15	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.90	0.16	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
Br-Perfluorohexanesulfonic acid	ND		0.90	0.13	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
<b>Total PFHxS</b>	<b>0.51 J</b>		0.90	0.13	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.51 J</b>		0.90	0.13	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.90	0.17	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>110 EI</b>		2.3	0.18	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>7.5</b>		2.3	0.18	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
<b>Total PFOS</b>	<b>110</b>		2.3	0.18	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
4:2 FTS	ND		0.90	0.24	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
<b>6:2 FTS</b>	<b>0.50 J</b>		0.90	0.38	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
<b>8:2 FTS</b>	<b>0.25 J</b>		0.90	0.090	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
<b>10:2 FTS</b>	<b>0.29 J</b>		0.90	0.091	ug/Kg	12/04/24 11:48	12/10/24 00:30		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	46		25 - 150			12/04/24 11:48	12/10/24 00:30		1
13C5 PFPeA	73		25 - 150			12/04/24 11:48	12/10/24 00:30		1
13C2 PFHxA	84		25 - 150			12/04/24 11:48	12/10/24 00:30		1
13C4 PFHpA	86		25 - 150			12/04/24 11:48	12/10/24 00:30		1
13C4 PFOA	78		25 - 150			12/04/24 11:48	12/10/24 00:30		1
13C5 PFNA	84		25 - 150			12/04/24 11:48	12/10/24 00:30		1
13C2 PFDA	71		25 - 150			12/04/24 11:48	12/10/24 00:30		1
13C2 PFUnA	118		25 - 150			12/04/24 11:48	12/10/24 00:30		1
13C3 PFBS	75		25 - 150			12/04/24 11:48	12/10/24 00:30		1
18O2 PFHxS	101		25 - 150			12/04/24 11:48	12/10/24 00:30		1
13C4 PFOS	85		25 - 150			12/04/24 11:48	12/10/24 00:30		1
M2-4:2 FTS	86		25 - 150			12/04/24 11:48	12/10/24 00:30		1
M2-6:2 FTS	92		25 - 150			12/04/24 11:48	12/10/24 00:30		1
M2-8:2 FTS	98		25 - 150			12/04/24 11:48	12/10/24 00:30		1
13C2 10:2 FTS	467 *5+		25 - 150			12/04/24 11:48	12/10/24 00:30		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: Gambusia Wet 2 / MSB:DGR:3154\_2**

**Lab Sample ID: 320-117195-17**

**Matrix: Tissue**

Date Collected: 10/02/24 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.28	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
L-Perfluoroctanoic acid	ND		1.0	0.21	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
Br-Perfluoroctanoic acid	ND		1.0	0.21	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
Total PFOA	ND		1.0	0.21	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.54 J</b>		1.0	0.11	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.53 J</b>		1.0	0.28	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.18	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.19	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
<b>Total PFHxS</b>	<b>0.75 J</b>		1.0	0.15	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.61 J</b>		1.0	0.15	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>42</b>		2.6	0.21	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>2.7</b>		2.6	0.21	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
<b>Total PFOS</b>	<b>44</b>		2.6	0.21	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
4:2 FTS	ND		1.0	0.27	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
6:2 FTS	ND		1.0	0.44	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
<b>8:2 FTS</b>	<b>0.13 J</b>		1.0	0.10	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
<b>10:2 FTS</b>	<b>0.22 J</b>		1.0	0.10	ug/Kg	12/04/24 11:48	12/11/24 14:16		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	63		25 - 150			12/04/24 11:48	12/11/24 14:16		1
13C5 PFPeA	77		25 - 150			12/04/24 11:48	12/11/24 14:16		1
13C2 PFHxA	106		25 - 150			12/04/24 11:48	12/11/24 14:16		1
13C4 PFHpA	100		25 - 150			12/04/24 11:48	12/11/24 14:16		1
13C4 PFOA	96		25 - 150			12/04/24 11:48	12/11/24 14:16		1
13C5 PFNA	108		25 - 150			12/04/24 11:48	12/11/24 14:16		1
13C2 PFDA	108		25 - 150			12/04/24 11:48	12/11/24 14:16		1
13C2 PFUnA	116		25 - 150			12/04/24 11:48	12/11/24 14:16		1
13C3 PFBS	93		25 - 150			12/04/24 11:48	12/11/24 14:16		1
18O2 PFHxS	116		25 - 150			12/04/24 11:48	12/11/24 14:16		1
13C4 PFOS	108		25 - 150			12/04/24 11:48	12/11/24 14:16		1
M2-4:2 FTS	108		25 - 150			12/04/24 11:48	12/11/24 14:16		1
M2-6:2 FTS	176 *5+		25 - 150			12/04/24 11:48	12/11/24 14:16		1
M2-8:2 FTS	152 *5+		25 - 150			12/04/24 11:48	12/11/24 14:16		1
13C2 10:2 FTS	418 *5+		25 - 150			12/04/24 11:48	12/11/24 14:16		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: Dragonfly wetland / MSB:DGR:3159**

**Lab Sample ID: 320-117195-18**

**Matrix: Tissue**

Date Collected: 10/02/24 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.6	1.3	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Perfluoropentanoic acid (PFPeA)	ND		5.6	0.97	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Perfluorohexanoic acid (PFHxA)	ND		5.6	1.5	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Perfluoroheptanoic acid (PFHpA)	ND		5.6	0.64	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
L-Perfluoroctanoic acid	ND		5.6	1.1	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Br-Perfluoroctanoic acid	ND		5.6	1.1	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Total PFOA	ND		5.6	1.1	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Perfluorononanoic acid (PFNA)	ND		5.6	0.97	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Perfluorodecanoic acid (PFDA)	ND		5.6	0.57	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Perfluoroundecanoic acid (PFUnA)	ND		5.6	1.5	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Perfluorobutanesulfonic acid (PFBS)	ND		5.6	0.94	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Perfluoropentanesulfonic acid (PFPeS)	ND		5.6	1.0	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Br-Perfluorohexanesulfonic acid	ND		5.6	0.82	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Total PFHxS	ND		5.6	0.82	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
L-Perfluorohexanesulfonic acid	ND		5.6	0.82	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		5.6	1.0	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>1.1 J I</b>		14	1.1	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Br-Perfluoroctanesulfonic acid	ND		14	1.1	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
<b>Total PFOS</b>	<b>1.1 J</b>		14	1.1	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
4:2 FTS	ND		5.6	1.5	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
6:2 FTS	ND		5.6	2.4	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
8:2 FTS	ND		5.6	0.56	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
10:2 FTS	ND		5.6	0.56	ug/Kg	12/03/24 12:06	12/06/24 23:39		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	84		25 - 150			12/03/24 12:06	12/06/24 23:39		1
13C5 PFPeA	79		25 - 150			12/03/24 12:06	12/06/24 23:39		1
13C2 PFHxA	88		25 - 150			12/03/24 12:06	12/06/24 23:39		1
13C4 PFHpA	84		25 - 150			12/03/24 12:06	12/06/24 23:39		1
13C4 PFOA	74		25 - 150			12/03/24 12:06	12/06/24 23:39		1
13C5 PFNA	78		25 - 150			12/03/24 12:06	12/06/24 23:39		1
13C2 PFDA	78		25 - 150			12/03/24 12:06	12/06/24 23:39		1
13C2 PFUnA	73		25 - 150			12/03/24 12:06	12/06/24 23:39		1
13C3 PFBS	73		25 - 150			12/03/24 12:06	12/06/24 23:39		1
18O2 PFHxS	89		25 - 150			12/03/24 12:06	12/06/24 23:39		1
13C4 PFOS	76		25 - 150			12/03/24 12:06	12/06/24 23:39		1
M2-4:2 FTS	59		25 - 150			12/03/24 12:06	12/06/24 23:39		1
M2-6:2 FTS	54		25 - 150			12/03/24 12:06	12/06/24 23:39		1
M2-8:2 FTS	48		25 - 150			12/03/24 12:06	12/06/24 23:39		1
13C2 10:2 FTS	354 *5+		25 - 150			12/03/24 12:06	12/06/24 23:39		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: Cattail N wet / MSB:DGR:3155\_1**

**Lab Sample ID: 320-117195-19**

**Matrix: Tissue**

Date Collected: 10/02/24 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	12		2.6	0.61	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Perfluoropentanoic acid (PFPeA)	57		2.6	0.45	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Perfluorohexanoic acid (PFHxA)	7.8		2.6	0.70	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Perfluoroheptanoic acid (PFHpA)	0.56 J		2.6	0.30	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
L-Perfluoroctanoic acid	ND		2.6	0.52	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Br-Perfluoroctanoic acid	ND		2.6	0.52	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Total PFOA	ND		2.6	0.52	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Perfluorononanoic acid (PFNA)	ND		2.6	0.45	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Perfluorodecanoic acid (PFDA)	ND		2.6	0.26	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Perfluoroundecanoic acid (PFUnA)	ND		2.6	0.70	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Perfluorobutanesulfonic acid (PFBS)	ND		2.6	0.44	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.6	0.46	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Br-Perfluorohexanesulfonic acid	ND		2.6	0.38	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
<b>Total PFHxS</b>	<b>1.8 J</b>		2.6	0.38	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>1.8 J</b>		2.6	0.38	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.6	0.47	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>3.8 J</b>		6.4	0.52	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>1.3 J</b>		6.4	0.52	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
<b>Total PFOS</b>	<b>5.2 J</b>		6.4	0.52	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
4:2 FTS	ND		2.6	0.68	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
<b>6:2 FTS</b>	<b>3.2</b>		2.6	1.1	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
8:2 FTS	ND		2.6	0.26	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
10:2 FTS	ND		2.6	0.26	ug/Kg	12/03/24 12:06	12/06/24 23:00		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	40		25 - 150			12/03/24 12:06	12/06/24 23:00		1
13C5 PFPeA	86		25 - 150			12/03/24 12:06	12/06/24 23:00		1
13C2 PFHxA	89		25 - 150			12/03/24 12:06	12/06/24 23:00		1
13C4 PFHpA	80		25 - 150			12/03/24 12:06	12/06/24 23:00		1
13C4 PFOA	73		25 - 150			12/03/24 12:06	12/06/24 23:00		1
13C5 PFNA	72		25 - 150			12/03/24 12:06	12/06/24 23:00		1
13C2 PFDA	81		25 - 150			12/03/24 12:06	12/06/24 23:00		1
13C2 PFUnA	70		25 - 150			12/03/24 12:06	12/06/24 23:00		1
13C3 PFBS	74		25 - 150			12/03/24 12:06	12/06/24 23:00		1
18O2 PFHxS	84		25 - 150			12/03/24 12:06	12/06/24 23:00		1
13C4 PFOS	80		25 - 150			12/03/24 12:06	12/06/24 23:00		1
M2-4:2 FTS	78		25 - 150			12/03/24 12:06	12/06/24 23:00		1
M2-6:2 FTS	59		25 - 150			12/03/24 12:06	12/06/24 23:00		1
M2-8:2 FTS	48		25 - 150			12/03/24 12:06	12/06/24 23:00		1
13C2 10:2 FTS	316 *5+		25 - 150			12/03/24 12:06	12/06/24 23:00		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: Cattail N wet 2 / MSB:DGR:3155\_2**

**Lab Sample ID: 320-117195-20**

**Matrix: Tissue**

Date Collected: 10/02/24 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	18		1.4	0.34	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
Perfluoropentanoic acid (PFPeA)	35		1.4	0.25	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
Perfluorohexanoic acid (PFHxA)	3.3		1.4	0.39	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
Perfluoroheptanoic acid (PFHpA)	0.65 J	J	1.4	0.17	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
L-Perfluorooctanoic acid	0.85 J	J	1.4	0.29	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
Br-Perfluorooctanoic acid	ND		1.4	0.29	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
<b>Total PFOA</b>	<b>0.85 J</b>		1.4	0.29	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
Perfluorononanoic acid (PFNA)	0.29 J I	J I	1.4	0.25	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
Perfluorodecanoic acid (PFDA)	ND		1.4	0.15	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
Perfluoroundecanoic acid (PFUnA)	ND		1.4	0.39	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.4	0.24	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.4	0.26	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
Br-Perfluorohexanesulfonic acid	0.58 J	J	1.4	0.21	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
<b>Total PFHxS</b>	<b>3.4</b>		1.4	0.21	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>2.8</b>		1.4	0.21	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.4	0.26	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>6.0</b>		3.6	0.29	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>1.8 J</b>	J	3.6	0.29	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
<b>Total PFOS</b>	<b>7.9</b>		3.6	0.29	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
4:2 FTS	ND		1.4	0.38	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
<b>6:2 FTS</b>	<b>10</b>		1.4	0.61	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
8:2 FTS	ND		1.4	0.14	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
10:2 FTS	ND		1.4	0.14	ug/Kg	12/03/24 12:06	12/06/24 23:19		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	17	*5-	25 - 150			12/03/24 12:06	12/06/24 23:19		1
13C5 PFPeA	54		25 - 150			12/03/24 12:06	12/06/24 23:19		1
13C2 PFHxA	72		25 - 150			12/03/24 12:06	12/06/24 23:19		1
13C4 PFHpA	77		25 - 150			12/03/24 12:06	12/06/24 23:19		1
13C4 PFOA	63		25 - 150			12/03/24 12:06	12/06/24 23:19		1
13C5 PFNA	65		25 - 150			12/03/24 12:06	12/06/24 23:19		1
13C2 PFDA	70		25 - 150			12/03/24 12:06	12/06/24 23:19		1
13C2 PFUnA	62		25 - 150			12/03/24 12:06	12/06/24 23:19		1
13C3 PFBS	54		25 - 150			12/03/24 12:06	12/06/24 23:19		1
18O2 PFHxS	74		25 - 150			12/03/24 12:06	12/06/24 23:19		1
13C4 PFOS	69		25 - 150			12/03/24 12:06	12/06/24 23:19		1
M2-4:2 FTS	98		25 - 150			12/03/24 12:06	12/06/24 23:19		1
M2-6:2 FTS	73		25 - 150			12/03/24 12:06	12/06/24 23:19		1
M2-8:2 FTS	59		25 - 150			12/03/24 12:06	12/06/24 23:19		1
13C2 10:2 FTS	301	*5+	25 - 150			12/03/24 12:06	12/06/24 23:19		1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: saltceder NE4-4 / MSB:DGR:3156**

**Lab Sample ID: 320-117195-21**

**Matrix: Tissue**

Date Collected: 10/01/24 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.8	0.42	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.31	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.4</b>		1.8	0.49	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.70 J</b>		1.8	0.21	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
L-Perfluorooctanoic acid	0.68 J		1.8	0.36	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
Br-Perfluorooctanoic acid	0.60 J		1.8	0.36	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
<b>Total PFOA</b>	<b>1.3 J</b>		1.8	0.36	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.31	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.18	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.49	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.41 J</b>		1.8	0.30	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>2.6</b>		1.8	0.32	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
Br-Perfluorohexanesulfonic acid	2.7		1.8	0.26	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
<b>Total PFHxS</b>	<b>24</b>		1.8	0.26	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>22</b>		1.8	0.26	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8	0.33	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>3.9 J</b>		4.5	0.36	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>1.8 J</b>		4.5	0.36	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
<b>Total PFOS</b>	<b>5.8</b>		4.5	0.36	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
4:2 FTS	ND		1.8	0.48	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
6:2 FTS	ND		1.8	0.76	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
8:2 FTS	ND		1.8	0.18	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
<b>10:2 FTS</b>	<b>0.18 J</b>		1.8	0.18	ug/Kg		12/04/24 11:48	12/10/24 01:08	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	32		25 - 150				12/04/24 11:48	12/10/24 01:08	1
13C5 PFPeA	70		25 - 150				12/04/24 11:48	12/10/24 01:08	1
13C2 PFHxA	82		25 - 150				12/04/24 11:48	12/10/24 01:08	1
13C4 PFHpA	84		25 - 150				12/04/24 11:48	12/10/24 01:08	1
13C4 PFOA	71		25 - 150				12/04/24 11:48	12/10/24 01:08	1
13C5 PFNA	76		25 - 150				12/04/24 11:48	12/10/24 01:08	1
13C2 PFDA	72		25 - 150				12/04/24 11:48	12/10/24 01:08	1
13C2 PFUnA	64		25 - 150				12/04/24 11:48	12/10/24 01:08	1
13C3 PFBS	72		25 - 150				12/04/24 11:48	12/10/24 01:08	1
18O2 PFHxS	86		25 - 150				12/04/24 11:48	12/10/24 01:08	1
13C4 PFOS	79		25 - 150				12/04/24 11:48	12/10/24 01:08	1
M2-4:2 FTS	92		25 - 150				12/04/24 11:48	12/10/24 01:08	1
M2-6:2 FTS	81		25 - 150				12/04/24 11:48	12/10/24 01:08	1
M2-8:2 FTS	70		25 - 150				12/04/24 11:48	12/10/24 01:08	1
13C2 10:2 FTS	203 *5+		25 - 150				12/04/24 11:48	12/10/24 01:08	1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: Marsh fleabane / MSB:DGR:3153**

**Lab Sample ID: 320-117195-22**

**Matrix: Tissue**

Date Collected: 10/02/24 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.81	J	0.87	0.21	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
Perfluoropentanoic acid (PFPeA)	6.6		0.87	0.15	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
Perfluorohexanoic acid (PFHxA)	1.2		0.87	0.24	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
Perfluoroheptanoic acid (PFHpA)	0.16	J	0.87	0.10	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
L-Perfluoroctanoic acid	ND		0.87	0.18	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
Br-Perfluoroctanoic acid	ND		0.87	0.18	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
Total PFOA	ND		0.87	0.18	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
Perfluorononanoic acid (PFNA)	ND		0.87	0.15	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
Perfluorodecanoic acid (PFDA)	ND		0.87	0.090	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
Perfluoroundecanoic acid (PFUnA)	ND		0.87	0.24	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.87	0.15	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.87	0.16	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
Br-Perfluorohexanesulfonic acid	ND		0.87	0.13	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
<b>Total PFHxS</b>	<b>0.53</b>	<b>J</b>	<b>0.87</b>	<b>0.13</b>	<b>ug/Kg</b>		<b>12/04/24 11:48</b>	<b>12/10/24 01:28</b>	<b>1</b>
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.53</b>	<b>J</b>	<b>0.87</b>	<b>0.13</b>	<b>ug/Kg</b>		<b>12/04/24 11:48</b>	<b>12/10/24 01:28</b>	<b>1</b>
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.87	0.16	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>0.65</b>	<b>J</b>	<b>2.2</b>	<b>0.18</b>	<b>ug/Kg</b>		<b>12/04/24 11:48</b>	<b>12/10/24 01:28</b>	<b>1</b>
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.37</b>	<b>J</b>	<b>2.2</b>	<b>0.18</b>	<b>ug/Kg</b>		<b>12/04/24 11:48</b>	<b>12/10/24 01:28</b>	<b>1</b>
<b>Total PFOS</b>	<b>1.0</b>	<b>J</b>	<b>2.2</b>	<b>0.18</b>	<b>ug/Kg</b>		<b>12/04/24 11:48</b>	<b>12/10/24 01:28</b>	<b>1</b>
4:2 FTS	ND		0.87	0.23	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
<b>6:2 FTS</b>	<b>2.3</b>		0.87	0.37	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
8:2 FTS	ND		0.87	0.087	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
10:2 FTS	ND		0.87	0.088	ug/Kg		12/04/24 11:48	12/10/24 01:28	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	24	*5-	25 - 150				12/04/24 11:48	12/10/24 01:28	1
13C5 PFPeA	41		25 - 150				12/04/24 11:48	12/10/24 01:28	1
13C2 PFHxA	66		25 - 150				12/04/24 11:48	12/10/24 01:28	1
13C4 PFHpA	90		25 - 150				12/04/24 11:48	12/10/24 01:28	1
13C4 PFOA	64		25 - 150				12/04/24 11:48	12/10/24 01:28	1
13C5 PFNA	73		25 - 150				12/04/24 11:48	12/10/24 01:28	1
13C2 PFDA	75		25 - 150				12/04/24 11:48	12/10/24 01:28	1
13C2 PFUnA	67		25 - 150				12/04/24 11:48	12/10/24 01:28	1
13C3 PFBS	73		25 - 150				12/04/24 11:48	12/10/24 01:28	1
18O2 PFHxS	85		25 - 150				12/04/24 11:48	12/10/24 01:28	1
13C4 PFOS	75		25 - 150				12/04/24 11:48	12/10/24 01:28	1
M2-4:2 FTS	160	*5+	25 - 150				12/04/24 11:48	12/10/24 01:28	1
M2-6:2 FTS	82		25 - 150				12/04/24 11:48	12/10/24 01:28	1
M2-8:2 FTS	79		25 - 150				12/04/24 11:48	12/10/24 01:28	1
13C2 10:2 FTS	366	*5+	25 - 150				12/04/24 11:48	12/10/24 01:28	1

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# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: holloman wetland / MSB:DGR:3158**

**Lab Sample ID: 320-117195-23**

**Matrix: Solid**

Date Collected: 10/01/24 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	7.4		0.18	0.042	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
Perfluoroheptanoic acid (PFHpA)	4.7		0.18	0.035	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
L-Perfluoroctanoic acid	1.8		0.18	0.049	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
Br-Perfluoroctanoic acid	0.26		0.18	0.049	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
Total PFOA	2.1		0.18	0.049	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
Perfluorononanoic acid (PFNA)	0.84		0.18	0.020	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
Perfluorodecanoic acid (PFDA)	0.51		0.18	0.044	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
Perfluoroundecanoic acid (PFUnA)	0.36		0.18	0.039	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
Perfluorobutanesulfonic acid (PFBS)	1.2		0.18	0.035	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
Perfluoropentanesulfonic acid (PFPeS)	1.1		0.18	0.034	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
Br-Perfluorohexanesulfonic acid	2.2		0.18	0.027	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
Total PFHxS	11		0.18	0.027	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
L-Perfluorohexanesulfonic acid	9.0		0.18	0.027	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
Perfluoroheptanesulfonic acid (PFHPS)	0.42		0.18	0.045	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
4:2 FTS	ND		0.18	0.047	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
6:2 FTS	14		0.18	0.025	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
8:2 FTS	0.84		0.18	0.032	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
10:2 FTS	0.12	J	0.18	0.035	ug/Kg	11/25/24 04:16	11/26/24 14:38		1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	85		25 - 150				11/25/24 04:16	11/26/24 14:38	1
13C4 PFHpA	88		25 - 150				11/25/24 04:16	11/26/24 14:38	1
13C4 PFOA	77		25 - 150				11/25/24 04:16	11/26/24 14:38	1
13C5 PFNA	89		25 - 150				11/25/24 04:16	11/26/24 14:38	1
13C2 PFDA	88		25 - 150				11/25/24 04:16	11/26/24 14:38	1
13C2 PFUnA	87		25 - 150				11/25/24 04:16	11/26/24 14:38	1
13C3 PFBS	97		25 - 150				11/25/24 04:16	11/26/24 14:38	1
18O2 PFHxS	93		25 - 150				11/25/24 04:16	11/26/24 14:38	1
13C4 PFOS	76		25 - 150				11/25/24 04:16	11/26/24 14:38	1
M2-4:2 FTS	95		25 - 150				11/25/24 04:16	11/26/24 14:38	1
M2-6:2 FTS	86		25 - 150				11/25/24 04:16	11/26/24 14:38	1
M2-8:2 FTS	82		25 - 150				11/25/24 04:16	11/26/24 14:38	1
13C2 10:2 FTS	196	*5+	25 - 150				11/25/24 04:16	11/26/24 14:38	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	53		3.7	0.76	ug/Kg	11/25/24 04:16	11/27/24 14:06		20
Perfluorohexanoic acid (PFHxA)	25		3.7	0.57	ug/Kg	11/25/24 04:16	11/27/24 14:06		20
L-Perfluoroctanesulfonic acid	120		3.7	0.79	ug/Kg	11/25/24 04:16	11/27/24 14:06		20
Br-Perfluoroctanesulfonic acid	23		3.7	0.79	ug/Kg	11/25/24 04:16	11/27/24 14:06		20
Total PFOS	140		3.7	0.79	ug/Kg	11/25/24 04:16	11/27/24 14:06		20
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C5 PFPeA	70		25 - 150				11/25/24 04:16	11/27/24 14:06	20
13C2 PFHxA	85		25 - 150				11/25/24 04:16	11/27/24 14:06	20
13C4 PFOS	84		25 - 150				11/25/24 04:16	11/27/24 14:06	20

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# Client Sample Results

Client: University of New Mexico

Job ID: 320-117195-1

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

**Client Sample ID: holloman wetland / MSB:DGR:3158**

**Lab Sample ID: 320-117195-23**

Date Collected: 10/01/24 00:00

Matrix: Solid

Date Received: 11/21/24 09:40

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D2216-92)	56	H H3	0.10	0.10	%			12/03/24 14:12	1
Percent Solids (ASTM D2216-92)	44	H H3	0.10	0.10	%			12/03/24 14:12	1

# Client Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: holloman S. Playa / MSB:DGR:3157**

**Lab Sample ID: 320-117195-24**

**Matrix: Solid**

Date Collected: 10/01/24 00:00

Date Received: 11/21/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	13		0.18	0.042	ug/Kg	11/25/24 04:16	11/26/24 14:57		1
Perfluorononanoic acid (PFNA)	4.4		0.18	0.020	ug/Kg	11/25/24 04:16	11/26/24 14:57		1
Perfluorodecanoic acid (PFDA)	0.095	J	0.18	0.044	ug/Kg	11/25/24 04:16	11/26/24 14:57		1
Perfluoroundecanoic acid (PFUnA)	0.068	J	0.18	0.038	ug/Kg	11/25/24 04:16	11/26/24 14:57		1
4:2 FTS	ND		0.18	0.046	ug/Kg	11/25/24 04:16	11/26/24 14:57		1
6:2 FTS	6.1		0.18	0.025	ug/Kg	11/25/24 04:16	11/26/24 14:57		1
8:2 FTS	0.81		0.18	0.032	ug/Kg	11/25/24 04:16	11/26/24 14:57		1
10:2 FTS	ND		0.18	0.035	ug/Kg	11/25/24 04:16	11/26/24 14:57		1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	37		25 - 150				11/25/24 04:16	11/26/24 14:57	1
13C5 PFNA	78		25 - 150				11/25/24 04:16	11/26/24 14:57	1
13C2 PFDA	86		25 - 150				11/25/24 04:16	11/26/24 14:57	1
13C2 PFUnA	76		25 - 150				11/25/24 04:16	11/26/24 14:57	1
M2-4:2 FTS	91		25 - 150				11/25/24 04:16	11/26/24 14:57	1
M2-6:2 FTS	71		25 - 150				11/25/24 04:16	11/26/24 14:57	1
M2-8:2 FTS	70		25 - 150				11/25/24 04:16	11/26/24 14:57	1
13C2 10:2 FTS	134		25 - 150				11/25/24 04:16	11/26/24 14:57	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	59		18	3.7	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
Perfluorohexanoic acid (PFHxA)	180		18	2.8	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
Perfluoroheptanoic acid (PFHpA)	83		18	3.5	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
L-Perfluorooctanoic acid	110		18	4.8	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
Br-Perfluorooctanoic acid	19		18	4.8	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
Total PFOA	130		18	4.8	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
Perfluorobutanesulfonic acid (PFBS)	23		18	3.5	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
Perfluoropentanesulfonic acid (PFPeS)	60		18	3.4	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
Br-Perfluorohexanesulfonic acid	170		18	2.6	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
Total PFHxS	830		18	2.6	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
L-Perfluorohexanesulfonic acid	660		18	2.6	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
Perfluoroheptanesulfonic acid (PFHpS)	17	J	18	4.5	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
L-Perfluoroctanesulfonic acid	74		18	3.9	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
Br-Perfluoroctanesulfonic acid	130		18	3.9	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
Total PFOS	200		18	3.9	ug/Kg	11/25/24 04:16	12/02/24 15:41		100
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C5 PFPeA	84		25 - 150				11/25/24 04:16	12/02/24 15:41	100
13C2 PFHxA	83		25 - 150				11/25/24 04:16	12/02/24 15:41	100
13C4 PFHpA	84		25 - 150				11/25/24 04:16	12/02/24 15:41	100
13C4 PFOA	73		25 - 150				11/25/24 04:16	12/02/24 15:41	100
13C3 PFBS	83		25 - 150				11/25/24 04:16	12/02/24 15:41	100
18O2 PFHxS	106		25 - 150				11/25/24 04:16	12/02/24 15:41	100
13C4 PFOS	79		25 - 150				11/25/24 04:16	12/02/24 15:41	100

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# Client Sample Results

Client: University of New Mexico

Job ID: 320-117195-1

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

**Client Sample ID: holloman S. Playa / MSB:DGR:3157**

**Lab Sample ID: 320-117195-24**

Date Collected: 10/01/24 00:00

Matrix: Solid

Date Received: 11/21/24 09:40

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D2216-92)	32	H H3	0.10	0.10	%			12/03/24 14:12	1
Percent Solids (ASTM D2216-92)	68	H H3	0.10	0.10	%			12/03/24 14:12	1

# Isotope Dilution Summary

Client: University of New Mexico

Job ID: 320-117195-1

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-117195-23	holloman wetland / MSB:DGR:3	85			88	77	89	88	87
320-117195-23 - DL	holloman wetland / MSB:DGR:3158		70	85					
320-117195-24	holloman S. Playa / MSB:DGR:3157	37					78	86	76
320-117195-24 - DL	holloman S. Playa / MSB:DGR:3157		84	83	84	73			
LCS 320-817586/2-A	Lab Control Sample	114	101	108	106	98	100	97	88
MB 320-817586/1-A	Method Blank	110	110	112	111	95	111	103	95
Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)	
320-117195-23	holloman wetland / MSB:DGR:3	97	93	76	95	86	82	196 *5+	
320-117195-23 - DL	holloman wetland / MSB:DGR:3158			84					
320-117195-24	holloman S. Playa / MSB:DGR:3157				91	71	70	134	
320-117195-24 - DL	holloman S. Playa / MSB:DGR:3157	83	106	79					
LCS 320-817586/2-A	Lab Control Sample	113	105	100	98	84	80	115	
MB 320-817586/1-A	Method Blank	112	110	102	87	91	88	134	
<b>Surrogate Legend</b>									
PFBA = 13C4 PFBA									
PFPeA = 13C5 PFPeA									
PFHxA = 13C2 PFHxA									
C4PFHA = 13C4 PFHpA									
PFOA = 13C4 PFOA									
PFNA = 13C5 PFNA									
PFDA = 13C2 PFDA									
PFUnA = 13C2 PFUnA									
C3PFBS = 13C3 PFBS									
PFHxS = 18O2 PFHxS									
PFOS = 13C4 PFOS									
M242FTS = M2-4:2 FTS									
M262FTS = M2-6:2 FTS									
M282FTS = M2-8:2 FTS									
M102FTS = 13C2 10:2 FTS									

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-117195-1	NK 19893 L / MSB:Mamm:6184t	82	87	106	105	93	114	114	140
320-117195-2	NK 32079 L / MSB:Mamm:75616	107	88	116	118	96	113	118	105
320-117195-3	NK 32043 L / MSB:Mamm:75617	107	107	129	112	91	108	117	121
320-117195-4	NK 32074 L / MSB:Mamm:75618	88	81	112	93	93	97	95	90

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# Isotope Dilution Summary

Client: University of New Mexico

Job ID: 320-117195-1

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-117195-5	NK 32071 L / MSB:Mamm:75619	105	97	118	105	94	100	104	91
320-117195-6	NK 32039 L / MSB:Mamm:75620	104	105	119	105	92	109	110	91
320-117195-7	NK 10447 L / MSB:Mamm:87701	81	101	113	114	97	108	139	127
320-117195-8	NK 10444 L / MSB:Mamm:87702	77	94	107	110	93	102	128	115
320-117195-9	NK 10442 L / MSB:Mamm:89195	42	73	111	103	91	86	100	104
320-117195-10	NK 10446 L / MSB:Mamm:89187	67	89	108	101	89	100	112	103
320-117195-11	NK 40788 L / MSB:Mamm:89351	81	89	107	103	100	96	102	95
320-117195-12	NK 154469 M / MSB:Mamm:198472	65	89	119	109	94	97	109	87
320-117195-13	NK 180975 L / MSB:Mamm:1268357	43	86	122	121	95	102	123	133
320-117195-14	NK 303127 L / MSB:Mamm:326548	88	106	119	114	99	114	117	118
320-117195-15	NK 310003 L / MSB:Mamm:339709	63	86	122	109	94	104	108	114
320-117195-16	Gambusia Wet 1 / MSB:DGR:3154_1	46	73	84	86	78	84	71	118
320-117195-17	Gambusia Wet 2 / MSB:DGR:3154_2	63	77	106	100	96	108	108	116
320-117195-18	Dragonfly wetland / MSB:DGR:3159	84	79	88	84	74	78	78	73
320-117195-19	Cattail N wet / MSB:DGR:3155_1	40	86	89	80	73	72	81	70
320-117195-20	Cattail N wet 2 / MSB:DGR:3155_2	17 *5-	54	72	77	63	65	70	62
320-117195-21	saltceder NE4-4 / MSB:DGR:3156	32	70	82	84	71	76	72	64
320-117195-22	Marsh fleabane / MSB:DGR:3153	24 *5-	41	66	90	64	73	75	67
LCS 320-818866/2-A	Lab Control Sample	104	94	111	103	94	100	102	96
LCS 320-818987/2-A	Lab Control Sample	76	65	74	75	64	72	70	65
LCS 320-819252/2-A	Lab Control Sample	87	82	87	91	77	87	87	82
LCSD 320-818866/3-A	Lab Control Sample Dup	117	103	122	112	100	110	111	97
LCSD 320-818987/3-A	Lab Control Sample Dup	87	87	91	87	81	89	85	86
LCSD 320-819252/3-A	Lab Control Sample Dup	95	82	100	86	85	88	89	83
MB 320-818866/1-A	Method Blank	106	93	113	109	96	102	107	95
MB 320-818987/1-A	Method Blank	83	72	75	84	84	84	86	79
MB 320-819252/1-A	Method Blank	95	79	112	94	87	92	96	89
Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)	
320-117195-1	NK 19893 L / MSB:Mamm:61840	97	116	105	102	126	121	731 *5+	
320-117195-2	NK 32079 L / MSB:Mamm:75616	102	119	108	147	143	113	608 *5+	
320-117195-3	NK 32043 L / MSB:Mamm:75617	97	123	113	147	73	115	497 *5+	
320-117195-4	NK 32074 L / MSB:Mamm:75618	78	103	90	111	132	100	549 *5+	

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# Isotope Dilution Summary

Client: University of New Mexico

Job ID: 320-117195-1

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)						
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)
320-117195-5	NK 32071 L / MSB:Mamm:75619	84	113	96	95	139	105	326 *5+
320-117195-6	NK 32039 L / MSB:Mamm:75620	90	113	109	127	156 *5+	115	299 *5+
320-117195-7	NK 10447 L / MSB:Mamm:87701	97	118	106	201 *5+	184 *5+	299 *5+	579 *5+
320-117195-8	NK 10444 L / MSB:Mamm:87702	87	108	94	153 *5+	136	270 *5+	446 *5+
320-117195-9	NK 10442 L / MSB:Mamm:89195	78	109	99	134	125	129	238 *5+
320-117195-10	NK 10446 L / MSB:Mamm:89187	81	105	103	128	151 *5+	115	305 *5+
320-117195-11	NK 40788 L / MSB:Mamm:89351	89	110	102	126	146	88	426 *5+
320-117195-12	NK 154469 M / MSB:Mamm:198472	97	112	99	135	110	102	545 *5+
320-117195-13	NK 180975 L / MSB:Mamm:1268357	105	122	111	199 *5+	124	142	448 *5+
320-117195-14	NK 303127 L / MSB:Mamm:326548	115	126	112	136	140	119	580 *5+
320-117195-15	NK 310003 L / MSB:Mamm:339709	99	121	103	141	109	122	204 *5+
320-117195-16	Gambusia Wet 1 / MSB:DGR:3154_1	75	101	85	86	92	98	467 *5+
320-117195-17	Gambusia Wet 2 / MSB:DGR:3154_2	93	116	108	108	176 *5+	152 *5+	418 *5+
320-117195-18	Dragonfly wetland / MSB:DGR:3159	73	89	76	59	54	48	354 *5+
320-117195-19	Cattail N wet / MSB:DGR:3155_1	74	84	80	78	59	48	316 *5+
320-117195-20	Cattail N wet 2 / MSB:DGR:3155_2	54	74	69	98	73	59	301 *5+
320-117195-21	saltceder NE4-4 / MSB:DGR:3156	72	86	79	92	81	70	203 *5+
320-117195-22	Marsh fleabane / MSB:DGR:3153	73	85	75	160 *5+	82	79	366 *5+
LCS 320-818866/2-A	Lab Control Sample	106	104	92	117	96	118	504 *5+
LCS 320-818987/2-A	Lab Control Sample	73	72	69	46	57	48	300 *5+
LCS 320-819252/2-A	Lab Control Sample	73	98	87	87	86	72	351 *5+
LCSD 320-818866/3-A	Lab Control Sample Dup	109	112	100	127	125	111	497 *5+
LCSD 320-818987/3-A	Lab Control Sample Dup	83	95	88	65	72	62	419 *5+
LCSD 320-819252/3-A	Lab Control Sample Dup	88	105	89	94	91	83	350 *5+
MB 320-818866/1-A	Method Blank	106	116	103	125	136	117	462 *5+
MB 320-818987/1-A	Method Blank	81	92	76	57	68	62	381 *5+
MB 320-819252/1-A	Method Blank	93	103	100	69	101	82	396 *5+

### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHxA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS

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# Isotope Dilution Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

PFHxS = 18O2 PFHxS

PFOS = 13C4 PFOS

M242FTS = M2-4:2 FTS

M262FTS = M2-6:2 FTS

M282FTS = M2-8:2 FTS

M102FTS = 13C2 10:2 FTS

1

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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

**Lab Sample ID: MB 320-817586/1-A**

**Matrix: Solid**

**Analysis Batch: 817947**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 817586**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.20	0.046	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.041	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.031	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.038	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
L-Perfluoroctanoic acid	ND		0.20	0.053	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Br-Perfluoroctanoic acid	ND		0.20	0.053	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Total PFOA	ND		0.20	0.053	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.022	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.048	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.042	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.038	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.037	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Br-Perfluorohexanesulfonic acid	ND		0.20	0.029	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Total PFHxS	ND		0.20	0.029	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
L-Perfluorohexanesulfonic acid	ND		0.20	0.029	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.049	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
L-Perfluoroctanesulfonic acid	ND		0.20	0.043	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Br-Perfluoroctanesulfonic acid	ND		0.20	0.043	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Total PFOS	ND		0.20	0.043	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
4:2 FTS	ND		0.20	0.051	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
6:2 FTS	ND		0.20	0.027	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
8:2 FTS	ND		0.20	0.035	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
10:2 FTS	ND		0.20	0.038	ug/Kg		11/25/24 04:16	11/26/24 13:59	1

Isotope Dilution	%Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	110		25 - 150		11/25/24 04:16	11/26/24 13:59
13C5 PFPeA	110		25 - 150		11/25/24 04:16	11/26/24 13:59
13C2 PFHxA	112		25 - 150		11/25/24 04:16	11/26/24 13:59
13C4 PFHpA	111		25 - 150		11/25/24 04:16	11/26/24 13:59
13C4 PFOA	95		25 - 150		11/25/24 04:16	11/26/24 13:59
13C5 PFNA	111		25 - 150		11/25/24 04:16	11/26/24 13:59
13C2 PFDA	103		25 - 150		11/25/24 04:16	11/26/24 13:59
13C2 PFUnA	95		25 - 150		11/25/24 04:16	11/26/24 13:59
13C3 PFBS	112		25 - 150		11/25/24 04:16	11/26/24 13:59
18O2 PFHxS	110		25 - 150		11/25/24 04:16	11/26/24 13:59
13C4 PFOS	102		25 - 150		11/25/24 04:16	11/26/24 13:59
M2-4:2 FTS	87		25 - 150		11/25/24 04:16	11/26/24 13:59
M2-6:2 FTS	91		25 - 150		11/25/24 04:16	11/26/24 13:59
M2-8:2 FTS	88		25 - 150		11/25/24 04:16	11/26/24 13:59
13C2 10:2 FTS	134		25 - 150		11/25/24 04:16	11/26/24 13:59

**Lab Sample ID: LCS 320-817586/2-A**

**Matrix: Solid**

**Analysis Batch: 817947**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 817586**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	2.00	1.97		ug/Kg		98	76 - 136

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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-817586/2-A**

**Matrix: Solid**

**Analysis Batch: 817947**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 817586**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoropentanoic acid (PFPeA)	2.00	2.17		ug/Kg		108	74 - 134
Perfluorohexanoic acid (PFHxA)	2.00	1.91		ug/Kg		95	71 - 131
Perfluoroheptanoic acid (PFHpA)	2.00	1.98		ug/Kg		99	71 - 131
L-Perfluoroctanoic acid	2.00	1.83		ug/Kg		91	72 - 132
Total PFOA	2.00	1.83		ug/Kg		91	72 - 132
Perfluorononanoic acid (PFNA)	2.00	1.87		ug/Kg		94	73 - 133
Perfluorodecanoic acid (PFDA)	2.00	2.16		ug/Kg		108	72 - 132
Perfluoroundecanoic acid (PFUnA)	2.00	2.00		ug/Kg		100	75 - 135
Perfluorobutanesulfonic acid (PFBS)	1.78	1.65		ug/Kg		93	69 - 129
Perfluoropentanesulfonic acid (PFPeS)	1.88	1.61		ug/Kg		86	75 - 135
Total PFHxS	1.82	1.72		ug/Kg		95	62 - 122
L-Perfluorohexanesulfonic acid	1.82	1.72		ug/Kg		95	62 - 122
Perfluoroheptanesulfonic acid (PFHpS)	1.91	2.19		ug/Kg		115	76 - 136
L-Perfluoroctanesulfonic acid	1.86	1.83		ug/Kg		99	73 - 133
Total PFOS	1.86	1.83		ug/Kg		99	73 - 133
4:2 FTS	1.88	1.94		ug/Kg		104	71 - 131
6:2 FTS	1.90	1.78		ug/Kg		94	73 - 132
8:2 FTS	1.92	2.09		ug/Kg		109	75 - 135
10:2 FTS	1.93	1.84		ug/Kg		95	69 - 128

Isotope Dilution	LCS	LCS	Limits
	%Recovery	Qualifier	
13C4 PFBA	114		25 - 150
13C5 PFPeA	101		25 - 150
13C2 PFHxA	108		25 - 150
13C4 PFHpA	106		25 - 150
13C4 PFOA	98		25 - 150
13C5 PFNA	100		25 - 150
13C2 PFDA	97		25 - 150
13C2 PFUnA	88		25 - 150
13C3 PFBS	113		25 - 150
18O2 PFHxS	105		25 - 150
13C4 PFOS	100		25 - 150
M2-4:2 FTS	98		25 - 150
M2-6:2 FTS	84		25 - 150
M2-8:2 FTS	80		25 - 150
13C2 10:2 FTS	115		25 - 150

**Lab Sample ID: MB 320-818866/1-A**

**Matrix: Tissue**

**Analysis Batch: 820781**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 818866**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		12/03/24 04:26	12/09/24 15:46	1

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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID:** MB 320-818866/1-A

**Matrix:** Tissue

**Analysis Batch:** 820781

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 818866

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Total PFOA	ND		1.0	0.20	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.10	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.27	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Total PFHxS	ND		1.0	0.15	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
L-Perfluorooctanesulfonic acid	ND		2.5	0.20	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Br-Perfluorooctanesulfonic acid	ND		2.5	0.20	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
Total PFOS	ND		2.5	0.20	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
4:2 FTS	ND		1.0	0.27	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
6:2 FTS	ND		1.0	0.42	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
8:2 FTS	ND		1.0	0.10	ug/Kg		12/03/24 04:26	12/09/24 15:46	1
10:2 FTS	ND		1.0	0.10	ug/Kg		12/03/24 04:26	12/09/24 15:46	1

Isotope Dilution	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	106		25 - 150		12/03/24 04:26	12/09/24 15:46
13C5 PFPeA	93		25 - 150		12/03/24 04:26	12/09/24 15:46
13C2 PFHxA	113		25 - 150		12/03/24 04:26	12/09/24 15:46
13C4 PFHpA	109		25 - 150		12/03/24 04:26	12/09/24 15:46
13C4 PFOA	96		25 - 150		12/03/24 04:26	12/09/24 15:46
13C5 PFNA	102		25 - 150		12/03/24 04:26	12/09/24 15:46
13C2 PFDA	107		25 - 150		12/03/24 04:26	12/09/24 15:46
13C2 PFUnA	95		25 - 150		12/03/24 04:26	12/09/24 15:46
13C3 PFBS	106		25 - 150		12/03/24 04:26	12/09/24 15:46
18O2 PFHxS	116		25 - 150		12/03/24 04:26	12/09/24 15:46
13C4 PFOS	103		25 - 150		12/03/24 04:26	12/09/24 15:46
M2-4:2 FTS	125		25 - 150		12/03/24 04:26	12/09/24 15:46
M2-6:2 FTS	136		25 - 150		12/03/24 04:26	12/09/24 15:46
M2-8:2 FTS	117		25 - 150		12/03/24 04:26	12/09/24 15:46
13C2 10:2 FTS	462 *5+		25 - 150		12/03/24 04:26	12/09/24 15:46

**Lab Sample ID:** LCS 320-818866/2-A

**Matrix:** Tissue

**Analysis Batch:** 820781

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 818866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	10.0	10.3		ug/Kg		103	76 - 136
Perfluoropentanoic acid (PFPeA)	10.0	10.7		ug/Kg		107	69 - 129
Perfluorohexanoic acid (PFHxA)	10.0	9.88		ug/Kg		99	71 - 131
Perfluoroheptanoic acid (PFHpA)	10.0	10.2		ug/Kg		102	71 - 131
L-Perfluoroctanoic acid	10.0	9.61		ug/Kg		96	72 - 132

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# QC Sample Results

Client: University of New Mexico

Job ID: 320-117195-1

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-818866/2-A**

**Matrix: Tissue**

**Analysis Batch: 820781**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 818866**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total PFOA	10.0	9.61		ug/Kg		96	
Perfluorononanoic acid (PFNA)	10.0	9.22		ug/Kg		92	73 - 133
Perfluorodecanoic acid (PFDA)	10.0	10.0		ug/Kg		100	72 - 132
Perfluoroundecanoic acid (PFUnA)	10.0	8.81		ug/Kg		88	66 - 126
Perfluorobutanesulfonic acid (PFBS)	8.88	8.43		ug/Kg		95	69 - 129
Perfluoropentanesulfonic acid (PFPeS)	9.40	9.45		ug/Kg		101	66 - 126
Total PFHxS	9.12	8.35		ug/Kg		92	
L-Perfluorohexanesulfonic acid	9.12	8.35		ug/Kg		92	62 - 122
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.6		ug/Kg		111	76 - 136
L-Perfluorooctanesulfonic acid	9.30	9.60		ug/Kg		103	68 - 141
Total PFOS	9.30	9.60		ug/Kg		103	
4:2 FTS	9.38	10.0		ug/Kg		107	68 - 143
6:2 FTS	9.52	10.5		ug/Kg		110	73 - 139
8:2 FTS	9.60	9.36		ug/Kg		98	75 - 135
10:2 FTS	9.66	8.93		ug/Kg		92	69 - 145

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	104		25 - 150
13C5 PFPeA	94		25 - 150
13C2 PFHxA	111		25 - 150
13C4 PFHpA	103		25 - 150
13C4 PFOA	94		25 - 150
13C5 PFNA	100		25 - 150
13C2 PFDA	102		25 - 150
13C2 PFUnA	96		25 - 150
13C3 PFBS	106		25 - 150
18O2 PFHxS	104		25 - 150
13C4 PFOS	92		25 - 150
M2-4:2 FTS	117		25 - 150
M2-6:2 FTS	96		25 - 150
M2-8:2 FTS	118		25 - 150
13C2 10:2 FTS	504 *5+		25 - 150

**Lab Sample ID: LCSD 320-818866/3-A**

**Matrix: Tissue**

**Analysis Batch: 820781**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 818866**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	10.0	9.41		ug/Kg		94	76 - 136	9	30
Perfluoropentanoic acid (PFPeA)	10.0	10.6		ug/Kg		106	69 - 129	1	30
Perfluorohexanoic acid (PFHxA)	10.0	9.52		ug/Kg		95	71 - 131	4	30
Perfluoroheptanoic acid (PFHpA)	10.0	9.90		ug/Kg		99	71 - 131	3	30
L-Perfluorooctanoic acid	10.0	9.48		ug/Kg		95	72 - 132	1	30
Total PFOA	10.0	9.48		ug/Kg		95		1	
Perfluorononanoic acid (PFNA)	10.0	9.21		ug/Kg		92	73 - 133	0	30
Perfluorodecanoic acid (PFDA)	10.0	9.98		ug/Kg		100	72 - 132	0	30

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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-818866/3-A**

**Matrix: Tissue**

**Analysis Batch: 820781**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 818866**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	RPD Limit
				ug/Kg	90	66 - 126	2	30
Perfluoroundecanoic acid (PFUnA)	10.0	8.97						
Perfluorobutanesulfonic acid (PFBS)	8.88	8.79		ug/Kg	99	69 - 129	4	30
Perfluoropentanesulfonic acid (PFPeS)	9.40	8.80		ug/Kg	94	66 - 126	7	30
Total PFHxS	9.12	8.14		ug/Kg	89		3	
L-Perfluorohexanesulfonic acid	9.12	8.14		ug/Kg	89	62 - 122	3	30
Perfluoroheptanesulfonic acid (PFHpS)	9.54	11.2		ug/Kg	117	76 - 136	5	30
L-Perfluoroctanesulfonic acid	9.30	9.44		ug/Kg	101	68 - 141	2	30
Total PFOS	9.30	9.44		ug/Kg	101		2	
4:2 FTS	9.38	10.7		ug/Kg	114	68 - 143	6	30
6:2 FTS	9.52	8.58		ug/Kg	90	73 - 139	20	30
8:2 FTS	9.60	9.94		ug/Kg	104	75 - 135	6	30
10:2 FTS	9.66	9.46		ug/Kg	98	69 - 145	6	30

Isotope Dilution	LCSD	LCSD	Limits
	%Recovery	Qualifier	
13C4 PFBA	117		25 - 150
13C5 PFPeA	103		25 - 150
13C2 PFHxA	122		25 - 150
13C4 PFHpA	112		25 - 150
13C4 PFOA	100		25 - 150
13C5 PFNA	110		25 - 150
13C2 PFDA	111		25 - 150
13C2 PFUnA	97		25 - 150
13C3 PFBS	109		25 - 150
18O2 PFHxS	112		25 - 150
13C4 PFOS	100		25 - 150
M2-4:2 FTS	127		25 - 150
M2-6:2 FTS	125		25 - 150
M2-8:2 FTS	111		25 - 150
13C2 10:2 FTS	497 *5+		25 - 150

**Lab Sample ID: MB 320-818987/1-A**

**Matrix: Tissue**

**Analysis Batch: 820056**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 818987**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ugl/Kg		12/03/24 12:06	12/06/24 15:53	1
L-Perfluoroctanoic acid	ND		1.0	0.20	ugl/Kg		12/03/24 12:06	12/06/24 15:53	1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ugl/Kg		12/03/24 12:06	12/06/24 15:53	1
Total PFOA	ND		1.0	0.20	ugl/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ugl/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.10	ugl/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.27	ugl/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ugl/Kg		12/03/24 12:06	12/06/24 15:53	1

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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID:** MB 320-818987/1-A

**Matrix:** Tissue

**Analysis Batch:** 820056

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 818987

Analyte	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac	
	Result	Qualifier					Prepared	Analyzed			
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg		12/03/24 12:06	12/06/24 15:53		1	
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/03/24 12:06	12/06/24 15:53		1	
Total PFHxS	ND		1.0	0.15	ug/Kg		12/03/24 12:06	12/06/24 15:53		1	
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/03/24 12:06	12/06/24 15:53		1	
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg		12/03/24 12:06	12/06/24 15:53		1	
L-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg		12/03/24 12:06	12/06/24 15:53		1	
Br-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg		12/03/24 12:06	12/06/24 15:53		1	
Total PFOS	ND		2.5	0.20	ug/Kg		12/03/24 12:06	12/06/24 15:53		1	
4:2 FTS	ND		1.0	0.27	ug/Kg		12/03/24 12:06	12/06/24 15:53		1	
6:2 FTS	ND		1.0	0.42	ug/Kg		12/03/24 12:06	12/06/24 15:53		1	
8:2 FTS	ND		1.0	0.10	ug/Kg		12/03/24 12:06	12/06/24 15:53		1	
10:2 FTS	ND		1.0	0.10	ug/Kg		12/03/24 12:06	12/06/24 15:53		1	
MB		MB									
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac		
13C4 PFBA	83		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
13C5 PFPeA	72		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
13C2 PFHxA	75		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
13C4 PFHpA	84		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
13C4 PFOA	84		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
13C5 PFNA	84		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
13C2 PFDA	86		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
13C2 PFUnA	79		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
13C3 PFBS	81		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
18O2 PFHxS	92		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
13C4 PFOS	76		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
M2-4:2 FTS	57		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
M2-6:2 FTS	68		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
M2-8:2 FTS	62		25 - 150				12/03/24 12:06	12/06/24 15:53		1	
13C2 10:2 FTS	381	*5+	25 - 150				12/03/24 12:06	12/06/24 15:53		1	

**Lab Sample ID:** LCS 320-818987/2-A

**Matrix:** Tissue

**Analysis Batch:** 820056

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 818987

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
	Added	Result						Limits	
Perfluorobutanoic acid (PFBA)	10.0	10.8			ug/Kg		108	76 - 136	
Perfluoropentanoic acid (PFPeA)	10.0	8.77			ug/Kg		88	69 - 129	
Perfluorohexanoic acid (PFHxA)	10.0	9.70			ug/Kg		97	71 - 131	
Perfluoroheptanoic acid (PFHpA)	10.0	9.89			ug/Kg		99	71 - 131	
L-Perfluoroctanoic acid	10.0	10.4			ug/Kg		104	72 - 132	
Total PFOA	10.0	10.4			ug/Kg		104		
Perfluorononanoic acid (PFNA)	10.0	8.98			ug/Kg		90	73 - 133	
Perfluorodecanoic acid (PFDA)	10.0	9.96			ug/Kg		100	72 - 132	
Perfluoroundecanoic acid (PFUnA)	10.0	8.79			ug/Kg		88	66 - 126	
Perfluorobutanesulfonic acid (PFBS)	8.88	8.84			ug/Kg		99	69 - 129	

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# QC Sample Results

Client: University of New Mexico

Job ID: 320-117195-1

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-818987/2-A**

**Matrix: Tissue**

**Analysis Batch: 820056**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 818987**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	9.40	8.32		ug/Kg	89	66 - 126	
Total PFHxS	9.12	8.45		ug/Kg	93		
L-Perfluorohexanesulfonic acid	9.12	8.45		ug/Kg	93	62 - 122	
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.2		ug/Kg	107	76 - 136	
L-Perfluoroctanesulfonic acid	9.30	9.10		ug/Kg	98	68 - 141	
Total PFOS	9.30	9.10		ug/Kg	98		
4:2 FTS	9.38	10.5		ug/Kg	112	68 - 143	
6:2 FTS	9.52	9.93		ug/Kg	104	73 - 139	
8:2 FTS	9.60	10.1		ug/Kg	105	75 - 135	
10:2 FTS	9.66	8.86		ug/Kg	92	69 - 145	
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C4 PFBA	76		25 - 150				
13C5 PFPeA	65		25 - 150				
13C2 PFHxA	74		25 - 150				
13C4 PFHpA	75		25 - 150				
13C4 PFOA	64		25 - 150				
13C5 PFNA	72		25 - 150				
13C2 PFDA	70		25 - 150				
13C2 PFUnA	65		25 - 150				
13C3 PFBS	73		25 - 150				
18O2 PFHxS	72		25 - 150				
13C4 PFOS	69		25 - 150				
M2-4:2 FTS	46		25 - 150				
M2-6:2 FTS	57		25 - 150				
M2-8:2 FTS	48		25 - 150				
13C2 10:2 FTS	300 *5+		25 - 150				

**Lab Sample ID: LCSD 320-818987/3-A**

**Matrix: Tissue**

**Analysis Batch: 820056**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 818987**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	10.0	10.9		ug/Kg		109	76 - 136	1	30
Perfluoropentanoic acid (PFPeA)	10.0	9.93		ug/Kg		99	69 - 129	12	30
Perfluorohexanoic acid (PFHxA)	10.0	10.0		ug/Kg		100	71 - 131	3	30
Perfluoroheptanoic acid (PFHpA)	10.0	10.9		ug/Kg		109	71 - 131	9	30
L-Perfluoroctanoic acid	10.0	10.7		ug/Kg		107	72 - 132	3	30
Total PFOA	10.0	10.7		ug/Kg		107		3	
Perfluorononanoic acid (PFNA)	10.0	9.79		ug/Kg		98	73 - 133	9	30
Perfluorodecanoic acid (PFDA)	10.0	11.0		ug/Kg		110	72 - 132	10	30
Perfluoroundecanoic acid (PFUnA)	10.0	9.40		ug/Kg		94	66 - 126	7	30
Perfluorobutanesulfonic acid (PFBS)	8.88	9.45		ug/Kg		106	69 - 129	7	30
Perfluoropentanesulfonic acid (PFPeS)	9.40	9.95		ug/Kg		106	66 - 126	18	30
Total PFHxS	9.12	8.51		ug/Kg		93		1	

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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-818987/3-A**

**Matrix: Tissue**

**Analysis Batch: 820056**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 818987**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
L-Perfluorohexanesulfonic acid	9.12	8.51		ug/Kg		93	62 - 122	1	30
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.9		ug/Kg		115	76 - 136	7	30
L-Perfluoroctanesulfonic acid	9.30	11.7		ug/Kg		126	68 - 141	25	30
Total PFOS	9.30	11.7		ug/Kg		126		25	
4:2 FTS	9.38	10.0		ug/Kg		107	68 - 143	4	30
6:2 FTS	9.52	10.1		ug/Kg		106	73 - 139	1	30
8:2 FTS	9.60	11.1		ug/Kg		115	75 - 135	9	30
10:2 FTS	9.66	10.0		ug/Kg		104	69 - 145	12	30

Isotope Dilution	LCSD	LCSD	Limits
	%Recovery	Qualifier	
13C4 PFBA	87		25 - 150
13C5 PFPeA	87		25 - 150
13C2 PFHxA	91		25 - 150
13C4 PFHpA	87		25 - 150
13C4 PFOA	81		25 - 150
13C5 PFNA	89		25 - 150
13C2 PFDA	85		25 - 150
13C2 PFUnA	86		25 - 150
13C3 PFBS	83		25 - 150
18O2 PFHxS	95		25 - 150
13C4 PFOS	88		25 - 150
M2-4:2 FTS	65		25 - 150
M2-6:2 FTS	72		25 - 150
M2-8:2 FTS	62		25 - 150
13C2 10:2 FTS	419 *5+		25 - 150

**Lab Sample ID: MB 320-819252/1-A**

**Matrix: Tissue**

**Analysis Batch: 820782**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 819252**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Total PFOA	ND		1.0	0.20	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.10	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.27	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Total PFHxS	ND		1.0	0.15	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg		12/04/24 11:48	12/09/24 23:31	1

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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: MB 320-819252/1-A**

**Matrix: Tissue**

**Analysis Batch: 820782**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 819252**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							Prepared	Analyzed	Dil Fac
L-Perfluoroctanesulfonic acid	ND		ND		2.5	0.20	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Br-Perfluoroctanesulfonic acid	ND		ND		2.5	0.20	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Total PFOS			ND		2.5	0.20	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
4:2 FTS			ND		1.0	0.27	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
6:2 FTS			ND		1.0	0.42	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
8:2 FTS			ND		1.0	0.10	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
10:2 FTS			ND		1.0	0.10	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-819252/2-A**

**Matrix: Tissue**

**Analysis Batch: 820782**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 819252**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4:2 FTS	9.38	9.41		ug/Kg		100	68 - 143
6:2 FTS	9.52	9.13		ug/Kg		96	73 - 139
8:2 FTS	9.60	10.7		ug/Kg		111	75 - 135
10:2 FTS	9.66	8.51		ug/Kg		88	69 - 145

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	87		25 - 150
13C5 PFPeA	82		25 - 150
13C2 PFHxA	87		25 - 150
13C4 PFHpA	91		25 - 150
13C4 PFOA	77		25 - 150
13C5 PFNA	87		25 - 150
13C2 PFDA	87		25 - 150
13C2 PFUnA	82		25 - 150
13C3 PFBS	73		25 - 150
18O2 PFHxS	98		25 - 150
13C4 PFOS	87		25 - 150
M2-4:2 FTS	87		25 - 150
M2-6:2 FTS	86		25 - 150
M2-8:2 FTS	72		25 - 150
13C2 10:2 FTS	351 *5+		25 - 150

**Lab Sample ID: LCSD 320-819252/3-A**

**Matrix: Tissue**

**Analysis Batch: 820782**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 819252**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	10.0	9.89		ug/Kg		99	76 - 136	1	30
Perfluoropentanoic acid (PFPeA)	10.0	10.1		ug/Kg		101	69 - 129	5	30
Perfluorohexanoic acid (PFHxA)	10.0	9.62		ug/Kg		96	71 - 131	0	30
Perfluoroheptanoic acid (PFHpA)	10.0	10.8		ug/Kg		108	71 - 131	7	30
L-Perfluorooctanoic acid	10.0	9.64		ug/Kg		96	72 - 132	7	30
Total PFOA	10.0	9.64		ug/Kg		96		7	
Perfluorononanoic acid (PFNA)	10.0	9.75		ug/Kg		98	73 - 133	9	30
Perfluorodecanoic acid (PFDA)	10.0	10.6		ug/Kg		106	72 - 132	7	30
Perfluoroundecanoic acid (PFUnA)	10.0	9.69		ug/Kg		97	66 - 126	11	30
Perfluorobutanesulfonic acid (PFBS)	8.88	9.07		ug/Kg		102	69 - 129	12	30
Perfluoropentanesulfonic acid (PFPeS)	9.40	10.1		ug/Kg		107	66 - 126	2	30
Total PFHxS	9.12	8.38		ug/Kg		92		4	
L-Perfluorohexanesulfonic acid	9.12	8.38		ug/Kg		92	62 - 122	4	30
Perfluoroheptanesulfonic acid (PFHpS)	9.54	11.0		ug/Kg		115	76 - 136	3	30
L-Perfluorooctanesulfonic acid	9.30	9.30		ug/Kg		100	68 - 141	1	30
Total PFOS	9.30	9.30		ug/Kg		100		1	
4:2 FTS	9.38	9.35		ug/Kg		100	68 - 143	1	30
6:2 FTS	9.52	9.42		ug/Kg		99	73 - 139	3	30
8:2 FTS	9.60	10.2		ug/Kg		106	75 - 135	5	30

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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID:** LCSD 320-819252/3-A

**Matrix:** Tissue

**Analysis Batch:** 820782

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Total/NA

**Prep Batch:** 819252

Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec Limits	RPD	RPD Limit
10:2 FTS		9.66	8.71		ug/Kg		90 69 - 145	2	30
Isotope Dilution		LCSD %Recovery	LCSD Qualifier		Limits				
13C4 PFBA		95			25 - 150				
13C5 PFPeA		82			25 - 150				
13C2 PFHxA		100			25 - 150				
13C4 PFHpA		86			25 - 150				
13C4 PFOA		85			25 - 150				
13C5 PFNA		88			25 - 150				
13C2 PFDA		89			25 - 150				
13C2 PFUnA		83			25 - 150				
13C3 PFBS		88			25 - 150				
18O2 PFHxS		105			25 - 150				
13C4 PFOS		89			25 - 150				
M2-4:2 FTS		94			25 - 150				
M2-6:2 FTS		91			25 - 150				
M2-8:2 FTS		83			25 - 150				
13C2 10:2 FTS		350 *5+			25 - 150				

## Method: D2216-92 - Percent Moisture

**Lab Sample ID:** 320-117195-23 DU

**Matrix:** Solid

**Analysis Batch:** 819026

**Client Sample ID:** holloman wetland / MSB:DGR:3158

**Prep Type:** Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	56	H H3	57		%		0.4	20
Percent Solids	44	H H3	43		%		0.5	20

# QC Association Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## LCMS

### Prep Batch: 817586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-23	holloman wetland / MSB:DGR:3158	Total/NA	Solid	SHAKE	
320-117195-23 - DL	holloman wetland / MSB:DGR:3158	Total/NA	Solid	SHAKE	
320-117195-24	holloman S. Playa / MSB:DGR:3157	Total/NA	Solid	SHAKE	
320-117195-24 - DL	holloman S. Playa / MSB:DGR:3157	Total/NA	Solid	SHAKE	
MB 320-817586/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-817586/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

### Analysis Batch: 817947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-23	holloman wetland / MSB:DGR:3158	Total/NA	Solid	B/L/T PFAS	817586
320-117195-24	holloman S. Playa / MSB:DGR:3157	Total/NA	Solid	B/L/T PFAS	817586
MB 320-817586/1-A	Method Blank	Total/NA	Solid	B/L/T PFAS	817586
LCS 320-817586/2-A	Lab Control Sample	Total/NA	Solid	B/L/T PFAS	817586

### Analysis Batch: 818285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-23 - DL	holloman wetland / MSB:DGR:3158	Total/NA	Solid	B/L/T PFAS	817586

### Analysis Batch: 818692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-24 - DL	holloman S. Playa / MSB:DGR:3157	Total/NA	Solid	B/L/T PFAS	817586

### Pre Prep Batch: 818862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-1	NK 19893 L / MSB:Mamm:61848	Total/NA	Tissue	In-House	
320-117195-2	NK 32079 L / MSB:Mamm:75616	Total/NA	Tissue	In-House	
320-117195-3	NK 32043 L / MSB:Mamm:75617	Total/NA	Tissue	In-House	
320-117195-4	NK 32074 L / MSB:Mamm:75618	Total/NA	Tissue	In-House	
320-117195-5	NK 32071 L / MSB:Mamm:75619	Total/NA	Tissue	In-House	
320-117195-6	NK 32039 L / MSB:Mamm:75620	Total/NA	Tissue	In-House	
320-117195-7	NK 10447 L / MSB:Mamm:87701	Total/NA	Tissue	In-House	
320-117195-8	NK 10444 L / MSB:Mamm:87702	Total/NA	Tissue	In-House	
320-117195-9	NK 10442 L / MSB:Mamm:89195	Total/NA	Tissue	In-House	
320-117195-10	NK 10446 L / MSB:Mamm:89187	Total/NA	Tissue	In-House	
320-117195-11	NK 40788 L / MSB:Mamm:89351	Total/NA	Tissue	In-House	
320-117195-12	NK 154469 M / MSB:Mamm:198472	Total/NA	Tissue	In-House	
320-117195-13	NK 180975 L / MSB:Mamm:1268357	Total/NA	Tissue	In-House	
320-117195-14	NK 303127 L / MSB:Mamm:326548	Total/NA	Tissue	In-House	
320-117195-15	NK 310003 L / MSB:Mamm:339709	Total/NA	Tissue	In-House	

### Prep Batch: 818866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-1	NK 19893 L / MSB:Mamm:61848	Total/NA	Tissue	SHAKE	818862
320-117195-2	NK 32079 L / MSB:Mamm:75616	Total/NA	Tissue	SHAKE	818862
320-117195-3	NK 32043 L / MSB:Mamm:75617	Total/NA	Tissue	SHAKE	818862
320-117195-4	NK 32074 L / MSB:Mamm:75618	Total/NA	Tissue	SHAKE	818862
320-117195-5	NK 32071 L / MSB:Mamm:75619	Total/NA	Tissue	SHAKE	818862
320-117195-6	NK 32039 L / MSB:Mamm:75620	Total/NA	Tissue	SHAKE	818862
320-117195-7	NK 10447 L / MSB:Mamm:87701	Total/NA	Tissue	SHAKE	818862
320-117195-8	NK 10444 L / MSB:Mamm:87702	Total/NA	Tissue	SHAKE	818862
320-117195-9	NK 10442 L / MSB:Mamm:89195	Total/NA	Tissue	SHAKE	818862

Eurofins Sacramento

# QC Association Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## LCMS (Continued)

### Prep Batch: 818866 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-10	NK 10446 L / MSB:Mamm:89187	Total/NA	Tissue	SHAKE	818862
320-117195-11	NK 40788 L / MSB:Mamm:89351	Total/NA	Tissue	SHAKE	818862
320-117195-12	NK 154469 M / MSB:Mamm:198472	Total/NA	Tissue	SHAKE	818862
320-117195-13	NK 180975 L / MSB:Mamm:1268357	Total/NA	Tissue	SHAKE	818862
320-117195-14	NK 303127 L / MSB:Mamm:326548	Total/NA	Tissue	SHAKE	818862
320-117195-15	NK 310003 L / MSB:Mamm:339709	Total/NA	Tissue	SHAKE	818862
MB 320-818866/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-818866/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-818866/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

### Pre Prep Batch: 818986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-16	Gambusia Wet 1 / MSB:DGR:3154_1	Total/NA	Tissue	In-House	10
320-117195-17	Gambusia Wet 2 / MSB:DGR:3154_2	Total/NA	Tissue	In-House	11
320-117195-18	Dragonfly wetland / MSB:DGR:3159	Total/NA	Tissue	In-House	

### Prep Batch: 818987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-18	Dragonfly wetland / MSB:DGR:3159	Total/NA	Tissue	SHAKE	818986
320-117195-19	Cattail N wet / MSB:DGR:3155_1	Total/NA	Tissue	SHAKE	819250
320-117195-20	Cattail N wet 2 / MSB:DGR:3155_2	Total/NA	Tissue	SHAKE	819250
MB 320-818987/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-818987/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-818987/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

### Pre Prep Batch: 819250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-19	Cattail N wet / MSB:DGR:3155_1	Total/NA	Tissue	In-House	
320-117195-20	Cattail N wet 2 / MSB:DGR:3155_2	Total/NA	Tissue	In-House	
320-117195-21	saltceder NE4-4 / MSB:DGR:3156	Total/NA	Tissue	In-House	
320-117195-22	Marsh fleabane / MSB:DGR:3153	Total/NA	Tissue	In-House	

### Prep Batch: 819252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-16	Gambusia Wet 1 / MSB:DGR:3154_1	Total/NA	Tissue	SHAKE	818986
320-117195-17	Gambusia Wet 2 / MSB:DGR:3154_2	Total/NA	Tissue	SHAKE	818986
320-117195-21	saltceder NE4-4 / MSB:DGR:3156	Total/NA	Tissue	SHAKE	819250
320-117195-22	Marsh fleabane / MSB:DGR:3153	Total/NA	Tissue	SHAKE	819250
MB 320-819252/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-819252/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-819252/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

### Analysis Batch: 820056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-18	Dragonfly wetland / MSB:DGR:3159	Total/NA	Tissue	B/L/T PFAS	818987
320-117195-19	Cattail N wet / MSB:DGR:3155_1	Total/NA	Tissue	B/L/T PFAS	818987
320-117195-20	Cattail N wet 2 / MSB:DGR:3155_2	Total/NA	Tissue	B/L/T PFAS	818987
MB 320-818987/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	818987
LCS 320-818987/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	818987
LCSD 320-818987/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	818987

# QC Association Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## LCMS

### Analysis Batch: 820781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-1	NK 19893 L / MSB:Mamm:61848	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-2	NK 32079 L / MSB:Mamm:75616	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-3	NK 32043 L / MSB:Mamm:75617	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-4	NK 32074 L / MSB:Mamm:75618	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-5	NK 32071 L / MSB:Mamm:75619	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-6	NK 32039 L / MSB:Mamm:75620	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-7	NK 10447 L / MSB:Mamm:87701	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-8	NK 10444 L / MSB:Mamm:87702	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-9	NK 10442 L / MSB:Mamm:89195	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-10	NK 10446 L / MSB:Mamm:89187	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-11	NK 40788 L / MSB:Mamm:89351	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-12	NK 154469 M / MSB:Mamm:198472	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-13	NK 180975 L / MSB:Mamm:1268357	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-14	NK 303127 L / MSB:Mamm:326548	Total/NA	Tissue	B/L/T PFAS	818866
320-117195-15	NK 310003 L / MSB:Mamm:339709	Total/NA	Tissue	B/L/T PFAS	818866
MB 320-818866/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	818866
LCS 320-818866/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	818866
LCSD 320-818866/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	818866

### Analysis Batch: 820782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-16	Gambusia Wet 1 / MSB:DGR:3154_1	Total/NA	Tissue	B/L/T PFAS	819252
320-117195-21	saltceder NE4-4 / MSB:DGR:3156	Total/NA	Tissue	B/L/T PFAS	819252
320-117195-22	Marsh fleabane / MSB:DGR:3153	Total/NA	Tissue	B/L/T PFAS	819252
MB 320-819252/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	819252
LCS 320-819252/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	819252
LCSD 320-819252/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	819252

### Analysis Batch: 821391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-17	Gambusia Wet 2 / MSB:DGR:3154_2	Total/NA	Tissue	B/L/T PFAS	819252

## General Chemistry

### Analysis Batch: 819026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117195-23	holloman wetland / MSB:DGR:3158	Total/NA	Solid	D2216-92	
320-117195-24	holloman S. Playa / MSB:DGR:3157	Total/NA	Solid	D2216-92	
320-117195-23 DU	holloman wetland / MSB:DGR:3158	Total/NA	Solid	D2216-92	

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 19893 L / MSB:Mamm:61848**  
**Date Collected: 05/11/89 00:00**  
**Date Received: 11/21/24 09:40**

**Lab Sample ID: 320-117195-1**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			0.91 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 16:44	S1C	EET SAC

**Client Sample ID: NK 32079 L / MSB:Mamm:75616**  
**Date Collected: 07/17/94 00:00**  
**Date Received: 11/21/24 09:40**

**Lab Sample ID: 320-117195-2**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			0.39 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 17:03	S1C	EET SAC

**Client Sample ID: NK 32043 L / MSB:Mamm:75617**  
**Date Collected: 06/12/94 00:00**  
**Date Received: 11/21/24 09:40**

**Lab Sample ID: 320-117195-3**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			0.54 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 17:23	S1C	EET SAC

**Client Sample ID: NK 32074 L / MSB:Mamm:75618**  
**Date Collected: 07/16/94 00:00**  
**Date Received: 11/21/24 09:40**

**Lab Sample ID: 320-117195-4**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			0.45 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 17:42	S1C	EET SAC

**Client Sample ID: NK 32071 L / MSB:Mamm:75619**  
**Date Collected: 07/16/94 00:00**  
**Date Received: 11/21/24 09:40**

**Lab Sample ID: 320-117195-5**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			0.08 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 18:01	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 32039 L / MSB:Mamm:75620**  
**Date Collected: 06/12/94 00:00**  
**Date Received: 11/21/24 09:40**

**Lab Sample ID: 320-117195-6**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			0.21 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 18:21	S1C	EET SAC

**Client Sample ID: NK 10447 L / MSB:Mamm:87701**  
**Date Collected: 11/26/94 00:00**  
**Date Received: 11/21/24 09:40**

**Lab Sample ID: 320-117195-7**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			0.92 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 18:40	S1C	EET SAC

**Client Sample ID: NK 10444 L / MSB:Mamm:87702**  
**Date Collected: 11/26/94 00:00**  
**Date Received: 11/21/24 09:40**

**Lab Sample ID: 320-117195-8**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			0.95 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 19:19	S1C	EET SAC

**Client Sample ID: NK 10442 L / MSB:Mamm:89195**  
**Date Collected: 11/07/94 00:00**  
**Date Received: 11/21/24 09:40**

**Lab Sample ID: 320-117195-9**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			1.03 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 19:38	S1C	EET SAC

**Client Sample ID: NK 10446 L / MSB:Mamm:89187**  
**Date Collected: 11/25/94 00:00**  
**Date Received: 11/21/24 09:40**

**Lab Sample ID: 320-117195-10**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			1.02 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 19:58	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: NK 40788 L / MSB:Mamm:89351**

**Lab Sample ID: 320-117195-11**

Matrix: Tissue

Date Collected: 06/18/97 00:00

Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			0.52 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 20:17	S1C	EET SAC

**Client Sample ID: NK 154469 M / MSB:Mamm:198472**

**Lab Sample ID: 320-117195-12**

Matrix: Tissue

Date Collected: 05/21/08 00:00

Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			0.93 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 20:37	S1C	EET SAC

**Client Sample ID: NK 180975 L / MSB:Mamm:1268357**

**Lab Sample ID: 320-117195-13**

Matrix: Tissue

Date Collected: 02/27/13 00:00

Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			1.05 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 20:56	S1C	EET SAC

**Client Sample ID: NK 303127 L / MSB:Mamm:326548**

**Lab Sample ID: 320-117195-14**

Matrix: Tissue

Date Collected: 08/02/17 00:00

Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			0.93 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 21:15	S1C	EET SAC

**Client Sample ID: NK 310003 L / MSB:Mamm:339709**

**Lab Sample ID: 320-117195-15**

Matrix: Tissue

Date Collected: 06/13/19 00:00

Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818862	12/03/24 04:16	R1T	EET SAC
Total/NA	Prep	SHAKE			0.96 g	10.0 mL	818866	12/03/24 04:26	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820781	12/09/24 21:35	S1C	EET SAC

Eurofins Sacramento

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## **Client Sample ID: Gambusia Wet 1 / MSB:DGR:3154\_1**

## **Lab Sample ID: 320-117195-16**

**Matrix: Tissue**

Date Collected: 10/02/24 00:00  
 Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			1.11 g	10.0 mL	819252	12/04/24 11:48	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820782	12/10/24 00:30	P1P	EET SAC

## **Client Sample ID: Gambusia Wet 2 / MSB:DGR:3154\_2**

## **Lab Sample ID: 320-117195-17**

**Matrix: Tissue**

Date Collected: 10/02/24 00:00  
 Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.97 g	10.0 mL	819252	12/04/24 11:48	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821391	12/11/24 14:16	S1C	EET SAC

## **Client Sample ID: Dragonfly wetland / MSB:DGR:3159**

## **Lab Sample ID: 320-117195-18**

**Matrix: Tissue**

Date Collected: 10/02/24 00:00  
 Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.18 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 23:39	P1R	EET SAC

## **Client Sample ID: Cattail N wet / MSB:DGR:3155\_1**

## **Lab Sample ID: 320-117195-19**

**Matrix: Tissue**

Date Collected: 10/02/24 00:00  
 Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	819250	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.39 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 23:00	P1R	EET SAC

## **Client Sample ID: Cattail N wet 2 / MSB:DGR:3155\_2**

## **Lab Sample ID: 320-117195-20**

**Matrix: Tissue**

Date Collected: 10/02/24 00:00  
 Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	819250	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.70 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 23:19	P1R	EET SAC

Eurofins Sacramento

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

**Client Sample ID: saltceder NE4-4 / MSB:DGR:3156**

**Lab Sample ID: 320-117195-21**

**Matrix: Tissue**

Date Collected: 10/01/24 00:00

Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	819250	12/04/24 11:42	ATB	EET SAC
Total/NA	Prep	SHAKE			0.56 g	10.0 mL	819252	12/04/24 11:48	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820782	12/10/24 01:08	P1P	EET SAC

**Client Sample ID: Marsh fleabane / MSB:DGR:3153**

**Lab Sample ID: 320-117195-22**

**Matrix: Tissue**

Date Collected: 10/02/24 00:00

Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	819250	12/04/24 11:42	ATB	EET SAC
Total/NA	Prep	SHAKE			1.15 g	10.0 mL	819252	12/04/24 11:48	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820782	12/10/24 01:28	P1P	EET SAC

**Client Sample ID: holloman wetland / MSB:DGR:3158**

**Lab Sample ID: 320-117195-23**

**Matrix: Solid**

Date Collected: 10/01/24 00:00

Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.43 g	10.0 mL	817586	11/25/24 04:16	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	817947	11/26/24 14:38	S1C	EET SAC
Total/NA	Prep	SHAKE	DL		5.43 g	10.0 mL	817586	11/25/24 04:16	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	20	1 mL	1 mL	818285	11/27/24 14:06	S1C	EET SAC
Total/NA	Analysis	D2216-92		1			819026	12/03/24 14:12	JCB	EET SAC

**Client Sample ID: holloman S. Playa / MSB:DGR:3157**

**Lab Sample ID: 320-117195-24**

**Matrix: Solid**

Date Collected: 10/01/24 00:00

Date Received: 11/21/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.49 g	10.0 mL	817586	11/25/24 04:16	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	817947	11/26/24 14:57	S1C	EET SAC
Total/NA	Prep	SHAKE	DL		5.49 g	10.0 mL	817586	11/25/24 04:16	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	818692	12/02/24 15:41	S1C	EET SAC
Total/NA	Analysis	D2216-92		1			819026	12/03/24 14:12	JCB	EET SAC

## Laboratory References:

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

Eurofins Sacramento

# Accreditation/Certification Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

## Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468	01-20-27
Arizona	State	AZ0708	08-11-25
Arkansas DEQ	State	88-0691	05-18-25
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-25
Florida	NELAP	E87570	06-30-25
Georgia	State	4040	01-29-25
Hawaii	State	Eurofins Sacramento	01-29-25
Illinois	NELAP	200060	03-31-25
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-25
Louisiana (All)	NELAP	01944	06-30-25
Maine	State	CA00004	04-14-26
Michigan	State	9947	01-29-25
Minnesota	NELAP	2749448	12-31-25
Nevada	State	CA00044	07-31-25
New Hampshire	NELAP	2997	04-19-25
New Jersey	NELAP	CA005	06-30-25
New York	NELAP	11666	04-01-25
Ohio	State	41252	01-29-25
Oregon	NELAP	4040	01-29-25
Texas	NELAP	T104704399-23-17	05-31-25
US Fish & Wildlife	US Federal Programs	A22139	04-30-25
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-25
Virginia	NELAP	460278	03-14-25
Washington	State	C581	05-05-25
West Virginia (DW)	State	9930C	01-31-25
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Sacramento

## Method Summary

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

Method	Method Description	Protocol	Laboratory
B/L/T PFAS	Branched, Linear and Total PFAS	EPA	EET SAC
D2216-92	Percent Moisture	ASTM	EET SAC
In-House	Tissue Preparation/Homogenization	NOAA	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

NOAA = National Marine Fisheries Service, National Oceanic And Atmospheric Administration, Seattle, WA, November 1988

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

### Laboratory References:

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

# Sample Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Plant & Soil, Holloman

Job ID: 320-117195-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
320-117195-1	NK 19893 L / MSB:Mamm:61848	Tissue	05/11/89 00:00	11/21/24 09:40	1
320-117195-2	NK 32079 L / MSB:Mamm:75616	Tissue	07/17/94 00:00	11/21/24 09:40	2
320-117195-3	NK 32043 L / MSB:Mamm:75617	Tissue	06/12/94 00:00	11/21/24 09:40	3
320-117195-4	NK 32074 L / MSB:Mamm:75618	Tissue	07/16/94 00:00	11/21/24 09:40	4
320-117195-5	NK 32071 L / MSB:Mamm:75619	Tissue	07/16/94 00:00	11/21/24 09:40	5
320-117195-6	NK 32039 L / MSB:Mamm:75620	Tissue	06/12/94 00:00	11/21/24 09:40	6
320-117195-7	NK 10447 L / MSB:Mamm:87701	Tissue	11/26/94 00:00	11/21/24 09:40	7
320-117195-8	NK 10444 L / MSB:Mamm:87702	Tissue	11/26/94 00:00	11/21/24 09:40	8
320-117195-9	NK 10442 L / MSB:Mamm:89195	Tissue	11/07/94 00:00	11/21/24 09:40	9
320-117195-10	NK 10446 L / MSB:Mamm:89187	Tissue	11/25/94 00:00	11/21/24 09:40	10
320-117195-11	NK 40788 L / MSB:Mamm:89351	Tissue	06/18/97 00:00	11/21/24 09:40	11
320-117195-12	NK 154469 M / MSB:Mamm:198472	Tissue	05/21/08 00:00	11/21/24 09:40	12
320-117195-13	NK 180975 L / MSB:Mamm:1268357	Tissue	02/27/13 00:00	11/21/24 09:40	13
320-117195-14	NK 303127 L / MSB:Mamm:326548	Tissue	08/02/17 00:00	11/21/24 09:40	14
320-117195-15	NK 310003 L / MSB:Mamm:339709	Tissue	06/13/19 00:00	11/21/24 09:40	
320-117195-16	Gambusia Wet 1 / MSB:DGR:3154_1	Tissue	10/02/24 00:00	11/21/24 09:40	
320-117195-17	Gambusia Wet 2 / MSB:DGR:3154_2	Tissue	10/02/24 00:00	11/21/24 09:40	
320-117195-18	Dragonfly wetland / MSB:DGR:3159	Tissue	10/02/24 00:00	11/21/24 09:40	
320-117195-19	Cattail N wet / MSB:DGR:3155_1	Tissue	10/02/24 00:00	11/21/24 09:40	
320-117195-20	Cattail N wet 2 / MSB:DGR:3155_2	Tissue	10/02/24 00:00	11/21/24 09:40	
320-117195-21	saltceder NE4-4 / MSB:DGR:3156	Tissue	10/01/24 00:00	11/21/24 09:40	
320-117195-22	Marsh fleabane / MSB:DGR:3153	Tissue	10/02/24 00:00	11/21/24 09:40	
320-117195-23	holloman wetland / MSB:DGR:3158	Solid	10/01/24 00:00	11/21/24 09:40	
320-117195-24	holloman S. Playa / MSB:DGR:3157	Solid	10/01/24 00:00	11/21/24 09:40	

### Chain of Custody Record



Environment Testing  
 America

Client Contact		Report To: Jean-Luc Cartron and Jon Dunnnum email: jlec@unm.edu, jdunnnum@unm.edu		Site Contact: Lab Contact: Linda Laver		Date: 11/18/2024	COC No: 1 of 2 COCs
		Analysis Turnaround Time Business Days (BD)					Job No.
		TAT if different from Above <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day					Field Sampler
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:
NK 19893 L / MSB:Mamm:61848		11-May-89	Liver			1	Onychomys leucogaster 1989
NK 32079 L / MSB:Mamm:75616		17-Jul-94	Liver			1	Antrozous pallidus 1994
NK 32043 L / MSB:Mamm:75617		12-Jun-94	Liver			1	Antrozous pallidus 1994
NK 32074 L / MSB:Mamm:75618		16-Jul-94	Liver			1	Antrozous pallidus 1994
NK 32071 L / MSB:Mamm:75619		16-Jul-94	Liver			1	Myotis californicus - 1994
NK 32039 L / MSB:Mamm:75620		12-Jun-94	Liver			1	Myotis ciliolabrum - 1994
NK 10447 L / MSB:Mamm:87701		26-Nov-94	Liver			1	Neotoma micropus - 1994
NK 10444 L / MSB:Mamm:87702		26-Nov-94	Liver			1	Neotoma micropus - 1994
NK 10442 L / MSB:Mamm:89195		7-Nov-94	Liver			1	Dipodomys merriami 1994
NK 10446 L / MSB:Mamm:89187		25-Nov-94	Liver			1	Dipodomys ordii- 1994
NK 40788 L / MSB:Mamm:89351		18-Jun-97	Liver			1	Sigmodon hispidus 1997
NK 154469 M / MSB:Mamm:198472		21-May-08	Liver			1	Canis latrans KAFB - 2008
NK 180975 L / MSB:Mamm:268357		27-Feb-13	Liver			1	Canis latrans KAFB 2013
NK 303127 L / MSB:Mamm:326548		2-Aug-17	Liver			1	Canis latrans KAFB 2017
NK 310003 L / MSB:Mamm:339709		13-Jun-19	Liver			1	Taxidea taxus KAFB 2019
Gambusia Wet 1 / MSB:DGR:3154_1		10/2/24	whole organism			1	Gambusia affinis
Gambusia Wet 2 / MSB:DGR:3154_2		10/2/24	whole organism			1	Gambusia affinis
Dragonfly wetland / MSB:DGR:3159		10/2/24	whole organism			1	Dragonfly (family Odonata)
Cattail N wet / MSB:DGR:3155_1		10/2/24	Plant tissue			1	Typha sp. (composite plant sample)
Cattail N wet 2 / MSB:DGR:3155_2		10/2/24	Plant tissue			1	Typha sp. (composite plant sample)
Saltcedar NE4-4 / MSB:DGR:3156		10/1/24	Plant tissue			1	Tamarix sp (composite plant sample)
Marsh fleabane / MSB:DGR:3153		10/2/24	Plant tissue			1	Pluchea odorata (composite plant sample)
Holloman wetland / MSB:DGR:3158		10/1/24	Soil/sediment			1	Soil at the edge of the wetland
Holloman S. Playa / MSB:DGR:3157		10/1/24	Soil/sediment			1	Soil sample from Playa downstream of Holloman Lake
Preservation Used: 1=Ice; 2=HCl; 3=H <sub>2</sub> SO <sub>4</sub> ; 4=HNO <sub>3</sub> ; 5=NaOH; 6=Other 1=ice							
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements & Comments:							
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:	11/20/08 0940	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:		

Client emailed  
 this COC  
 to be used  
 to log in  
 samples  
 11/20/24  
 (CCU)



## Environment Testing

Loc: 320

117195

## Sacramento Sample Receiving Notes (SSRN)

Tracking # 7300 8108 918

**Job** \_\_\_\_\_

FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
 GSL / OnTrac / Goldstreak / USPS / Other \_\_\_\_\_

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations  
File in the job folder with the COC

*\*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")*

Initials DM Date 11/21/24

Initials DM Date 11/21/24

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Jean-Luc Cartron  
University of New Mexico  
Museum of Southwestern Biology  
Division of Mammals  
CERIA Bldg 83, Room 204  
Albuquerque, New Mexico 87131

Generated 12/23/2024 9:07:25 AM

## JOB DESCRIPTION

UNM\_PFAS in Tissue, Holloman

## JOB NUMBER

320-117199-1

# Eurofins Sacramento

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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## Authorization



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Authorized for release by  
Linda C. Laver, Senior Project Manager  
[Linda.Laver@et.eurofinsus.com](mailto:Linda.Laver@et.eurofinsus.com)  
(916)374-4362

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# Definitions/Glossary

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## Qualifiers

LCMS	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
E	Result exceeded calibration range.
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.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⊕	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

# Case Narrative

Client: University of New Mexico  
Project: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Job ID: 320-117199-1**

**Eurofins Sacramento**

## Job Narrative 320-117199-1

### Receipt

The samples were received on 11/20/2024 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -23.7° C.

### Receipt Exceptions

Client emailed a Chain-of-Custody (COC) that was requested to be used for logging in the samples which had some revisions from the original COC shipped with the samples. Because the original COC was not signed at the time samples were relinquished, it was not included in this report.

Collection times were not provided. Samples were logged in with a default time of 00:00.

### LCMS

Method B/L/T PFAS: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for some samples. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method B/L/T PFAS: The "I" qualifier means the transition mass ratio for the indicated analyte was outside the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty.

Method B/L/T PFAS: The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: NK 311147 liver (320-117199-1), NK 311147 (320-117199-2), NK 311147 bone (320-117199-3), NK 311148 liver (320-117199-4), NK 311148 (320-117199-5), NK 311148 bone (320-117199-6), NK 311149 liver (320-117199-7), NK 311149 (320-117199-8), NK 311149 bone (320-117199-9), NK 311150 liver (320-117199-10), NK 311150 (320-117199-11), NK 311152 liver (320-117199-13), NK 311153 (320-117199-15) and NK 311154 liver (320-117199-16). These analytes have been qualified; however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

Method B/L/T PFAS: Some results for the following samples were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits. NK 311147 liver (320-117199-1), NK 311148 liver (320-117199-4), NK 311149 liver (320-117199-7), NK 311150 liver (320-117199-10), NK 311150 (320-117199-11), NK 311151 (320-117199-12), NK 311152 liver (320-117199-13), NK 311154 liver (320-117199-16) and NK 311154 (320-117199-17)

Method B/L/T PFAS: Some results for the following sample were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were outside acceptance limits. The internal standard is not used to quantitate any target analytes; therefore, the data have been reported. NK 311152 (320-117199-14)

Method B/L/T PFAS: The internal standard recovery of 13C2 PFOA was outside control limits in samples NK 311149 liver (320-117199-7) and NK 311150 liver (320-117199-10). Re-analysis confirms the out of control recovery. The internal standard is not used to quantitate any target analytes, therefore, the data have been reported NK 311149 liver (320-117199-7) and NK 311150 liver (320-117199-10)

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

### Organic Prep

Method SHAKE: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-818987.

Method SHAKE: Elevated reporting limits are provided for the following sample due to limited sample provided for extraction: NK 311147 liver (320-117199-1), NK 311147 bone (320-117199-3), NK 311148 liver (320-117199-4), NK 311148 bone (320-117199-6), NK 311149 liver (320-117199-7), NK 311149 bone (320-117199-9), NK 311150 liver (320-117199-10), NK 311152 liver (320-117199-13), NK 311153 (320-117199-15) and NK 311154 liver (320-117199-16).

Method SHAKE: The following samples were discolored following extraction: NK 311147 liver (320-117199-1), NK 311148 liver (320-117199-4) and NK 311150 (320-117199-11).

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

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## Client Sample ID: NK 311147 liver

## Lab Sample ID: 320-117199-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	0.66	J	2.2	0.44	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.66	J	2.2	0.44	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	92		2.2	0.38	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	45		2.2	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	4.7		2.2	0.59	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	32		2.2	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS - DL	360		220	32	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	360		220	32	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	650		220	40	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	57000	E		540	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	37000	E		540	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	94000			540	ug/Kg	100		B/L/T PFAS	Total/NA
10:2 FTS - RA	0.35	J	2.2	0.22	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311147

## Lab Sample ID: 320-117199-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	0.19	J	0.84	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.19	J	0.84	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	1.2		0.84	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.3		0.84	0.087	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	21		0.84	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	21		0.84	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	21		0.84	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	1600	E		2.1	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	540	E		2.1	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	2100			2.1	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.42	J	0.84	0.084	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311147 bone

## Lab Sample ID: 320-117199-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	0.79	J	3.4	0.60	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.64	J	3.4	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	22		3.4	0.51	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	22		3.4	0.51	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	16		3.4	0.64	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	810	E		0.70	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	260			0.70	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1100			0.70	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311148 liver

## Lab Sample ID: 320-117199-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	26		1.9	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	37		1.9	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	4.1		1.9	0.50	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.96	J	1.9	0.79	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	31		1.9	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS - DL	220		190	27	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## Client Sample ID: NK 311148 liver (Continued)

## Lab Sample ID: 320-117199-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanesulfonic acid - DL	220		190	27	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	330		190	34	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	44000	E	460	38	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	21000	E	460	38	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	65000		460	38	ug/Kg	100		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311148

## Lab Sample ID: 320-117199-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.34	J I	0.92	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.92		0.92	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.1		0.92	0.094	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	38		0.92	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	38		0.92	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	23		0.92	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	1200	E	2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	480	E	2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1700		2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.48	J	0.92	0.092	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311148 bone

## Lab Sample ID: 320-117199-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	0.91	J	3.8	0.67	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.97	J	3.8	0.40	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	45		3.8	0.57	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	45		3.8	0.57	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	27		3.8	0.71	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	1000	E	9.6	0.78	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	360	E	9.6	0.78	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1400		9.6	0.78	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311149 liver

## Lab Sample ID: 320-117199-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanoic acid	0.53	J	2.3	0.47	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.53	J	2.3	0.47	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	45		2.3	0.41	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	34		2.3	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.9		2.3	0.63	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	150		2.3	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	150		2.3	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	250		230	43	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	31000	E	580	47	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	15000		580	47	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS	46000		580	47	ug/Kg	100		B/L/T PFAS	Total/NA
8:2 FTS	15		2.3	0.23	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## Client Sample ID: NK 311149

## Lab Sample ID: 320-117199-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	2.2		0.93	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.0		0.93	0.095	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	36		0.93	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	36		0.93	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	38		0.93	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	1500	E	2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	710	E	2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	2200		2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.42	J	0.93	0.39	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.55	J	0.93	0.093	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311149 bone

## Lab Sample ID: 320-117199-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	2.3	J	3.6	0.63	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.1	J	3.6	0.37	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	55		3.6	0.53	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	55		3.6	0.53	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	49		3.6	0.66	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	1300	E	8.9	0.73	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	630	E	8.9	0.73	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1900		8.9	0.73	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.43	J	3.6	0.36	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311150 liver

## Lab Sample ID: 320-117199-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	1.4	J	1.9	0.37	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.4	J	1.9	0.37	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	79		1.9	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	34		1.9	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.7	J	1.9	0.50	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	11		1.9	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.20	J	1.9	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS - DL	600		190	27	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	600		190	27	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	1400		190	34	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	76000	E	460	38	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	45000	E	460	38	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	120000		460	38	ug/Kg	100		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311150

## Lab Sample ID: 320-117199-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	3.2		0.92	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.4		0.92	0.094	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.41	J	0.92	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	110		0.92	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	110	E	0.92	0.14	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## Client Sample ID: NK 311150 (Continued)

## Lab Sample ID: 320-117199-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanesulfonic acid (PFHpS)	110		92	17	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	4900		230	19	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	1400		230	19	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS	6300		230	19	ug/Kg	100		B/L/T PFAS	Total/NA
6:2 FTS	0.81	J	0.92	0.39	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.35	J	0.92	0.092	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311151

## Lab Sample ID: 320-117199-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanoic acid	2.7		1.0	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	2.7		1.0	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	5.0		1.0	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.2		1.0	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.22	J	1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	70		1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	69		1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	29		1.0	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.34	J	1.0	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	1500		130	11	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	460		130	11	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	2000		130	11	ug/Kg	50		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311152 liver

## Lab Sample ID: 320-117199-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.53	J	2.7	0.47	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	1.1	J	2.7	0.74	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	3.0		2.7	0.55	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	3.0		2.7	0.55	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	40		2.7	0.47	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	34		2.7	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.3	J	2.7	0.74	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	2.6	J	2.7	1.1	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	16		2.7	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS - DL	350		270	40	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	350		270	40	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	870		270	50	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	62000	E	680	55	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	44000	E	680	55	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	110000		680	55	ug/Kg	100		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311152

## Lab Sample ID: 320-117199-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanoic acid	0.26	J	0.83	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.26	J	0.83	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	1.1		0.83	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.1		0.83	0.086	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.62	J	0.83	0.12	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## Client Sample ID: NK 311152 (Continued)

## Lab Sample ID: 320-117199-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total PFHxS	67		0.83	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	67		0.83	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	66		42	7.7	ug/Kg	50		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	3100		100	8.5	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	1000		100	8.5	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS	4100		100	8.5	ug/Kg	50		B/L/T PFAS	Total/NA
6:2 FTS	0.43	J	0.83	0.35	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.51	J	0.83	0.083	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311153

## Lab Sample ID: 320-117199-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.50	J	1.6	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	21		1.6	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	21		1.6	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	6.1		1.6	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPPeS)	2.4		1.6	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	25		1.6	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	610		1.6	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	580	E	1.6	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	61		1.6	0.30	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	570	E	4.0	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	580	E	4.0	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1100		4.0	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.16	J	1.6	0.16	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK 311154 liver

## Lab Sample ID: 320-117199-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PPPeA)	0.64	J	1.8	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	1.1	J	1.8	0.50	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.24	J	1.8	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	3.5		1.8	0.37	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	3.5		1.8	0.37	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	70		1.8	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	47		1.8	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.4		1.8	0.49	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPPeS)	0.37	J	1.8	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	8.7		1.8	0.77	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	23		1.8	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS - DL	360		180	27	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	360		180	27	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	520		180	34	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	41000	E	450	37	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	25000	E	450	37	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	66000		450	37	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311154**

**Lab Sample ID: 320-117199-17**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.18	J	0.76	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	0.25	J	0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.25	J	0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	2.2		0.76	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.8		0.76	0.078	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	1.1		0.76	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.62	J	0.76	0.076	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS - DL	93		76	11	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	93		76	11	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	73	J	76	14	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	3600		190	15	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	1100		190	15	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	4700		190	15	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311147 liver**

**Lab Sample ID: 320-117199-1**

**Matrix: Tissue**

Date Collected: 11/13/24 00:00

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.2	0.51	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
Perfluoropentanoic acid (PFPeA)	ND		2.2	0.38	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
Perfluorohexanoic acid (PFHxA)	ND		2.2	0.59	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
Perfluoroheptanoic acid (PFHpA)	ND		2.2	0.25	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
<b>L-Perfluoroctanoic acid</b>	<b>0.66 J</b>		2.2	0.44	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
Br-Perfluoroctanoic acid	ND		2.2	0.44	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
<b>Total PFOA</b>	<b>0.66 J</b>		2.2	0.44	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>92</b>		2.2	0.38	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>45</b>		2.2	0.22	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>4.7</b>		2.2	0.59	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.2	0.37	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.2	0.39	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
4:2 FTS	ND		2.2	0.58	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
6:2 FTS	ND		2.2	0.92	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
<b>8:2 FTS</b>	<b>32</b>		2.2	0.22	ug/Kg		12/03/24 12:06	12/06/24 16:51	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	78		25 - 150				12/03/24 12:06	12/06/24 16:51	1
13C5 PFPeA	85		25 - 150				12/03/24 12:06	12/06/24 16:51	1
13C2 PFHxA	98		25 - 150				12/03/24 12:06	12/06/24 16:51	1
13C4 PFHpA	84		25 - 150				12/03/24 12:06	12/06/24 16:51	1
13C4 PFOA	75		25 - 150				12/03/24 12:06	12/06/24 16:51	1
13C5 PFNA	67		25 - 150				12/03/24 12:06	12/06/24 16:51	1
13C2 PFDA	80		25 - 150				12/03/24 12:06	12/06/24 16:51	1
13C2 PFUnA	75		25 - 150				12/03/24 12:06	12/06/24 16:51	1
13C3 PFBS	84		25 - 150				12/03/24 12:06	12/06/24 16:51	1
M2-4:2 FTS	74		25 - 150				12/03/24 12:06	12/06/24 16:51	1
M2-6:2 FTS	127		25 - 150				12/03/24 12:06	12/06/24 16:51	1
M2-8:2 FTS	60		25 - 150				12/03/24 12:06	12/06/24 16:51	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	ND		220	32	ug/Kg		12/03/24 12:06	12/10/24 18:17	100
<b>Total PFHxS</b>	<b>360</b>		220	32	ug/Kg		12/03/24 12:06	12/10/24 18:17	100
<b>L-Perfluorohexanesulfonic acid</b>	<b>360</b>		220	32	ug/Kg		12/03/24 12:06	12/10/24 18:17	100
Perfluoroheptanesulfonic acid (PFHpS)	650		220	40	ug/Kg		12/03/24 12:06	12/10/24 18:17	100
<b>L-Perfluoroctanesulfonic acid</b>	<b>57000 E</b>		540	44	ug/Kg		12/03/24 12:06	12/10/24 18:17	100
<b>Br-Perfluoroctanesulfonic acid</b>	<b>37000 E</b>		540	44	ug/Kg		12/03/24 12:06	12/10/24 18:17	100
<b>Total PFOS</b>	<b>94000</b>		540	44	ug/Kg		12/03/24 12:06	12/10/24 18:17	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	89		25 - 150				12/03/24 12:06	12/10/24 18:17	100
13C4 PFOS	65		25 - 150				12/03/24 12:06	12/10/24 18:17	100

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>10:2 FTS</b>	<b>0.35 J</b>		2.2	0.22	ug/Kg		12/03/24 12:06	12/10/24 18:37	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C2 10:2 FTS	174	*5+	25 - 150				12/03/24 12:06	12/10/24 18:37	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311147**

**Lab Sample ID: 320-117199-2**

Date Collected: 11/13/24 00:00

Matrix: Tissue

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.84	0.20	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
Perfluoropentanoic acid (PFPeA)	ND		0.84	0.15	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
Perfluorohexanoic acid (PFHxA)	ND		0.84	0.23	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
Perfluoroheptanoic acid (PFHpA)	ND		0.84	0.097	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
<b>L-Perfluoroctanoic acid</b>	<b>0.19 J</b>		0.84	0.17	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
Br-Perfluoroctanoic acid	ND		0.84	0.17	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
<b>Total PFOA</b>	<b>0.19 J</b>		0.84	0.17	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>1.2</b>		0.84	0.15	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.3</b>		0.84	0.087	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
Perfluoroundecanoic acid (PFUnA)	ND		0.84	0.23	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.84	0.14	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.84	0.15	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
Br-Perfluorohexanesulfonic acid	ND		0.84	0.12	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
<b>Total PFHxS</b>	<b>21</b>		0.84	0.12	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>21</b>		0.84	0.12	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>21</b>		0.84	0.16	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>1600 E</b>		2.1	0.17	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>540 E</b>		2.1	0.17	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
<b>Total PFOS</b>	<b>2100</b>		2.1	0.17	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
4:2 FTS	ND		0.84	0.22	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
6:2 FTS	ND		0.84	0.36	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
<b>8:2 FTS</b>	<b>0.42 J</b>		0.84	0.084	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
10:2 FTS	ND		0.84	0.085	ug/Kg	12/03/24	12:06	12/06/24 17:10	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	77		25 - 150			12/03/24	12:06	12/06/24 17:10	1
13C5 PFPeA	73		25 - 150			12/03/24	12:06	12/06/24 17:10	1
13C2 PFHxA	77		25 - 150			12/03/24	12:06	12/06/24 17:10	1
13C4 PFHpA	73		25 - 150			12/03/24	12:06	12/06/24 17:10	1
13C4 PFOA	63		25 - 150			12/03/24	12:06	12/06/24 17:10	1
13C5 PFNA	70		25 - 150			12/03/24	12:06	12/06/24 17:10	1
13C2 PFDA	72		25 - 150			12/03/24	12:06	12/06/24 17:10	1
13C2 PFUnA	70		25 - 150			12/03/24	12:06	12/06/24 17:10	1
13C3 PFBS	67		25 - 150			12/03/24	12:06	12/06/24 17:10	1
18O2 PFHxS	78		25 - 150			12/03/24	12:06	12/06/24 17:10	1
13C4 PFOS	51		25 - 150			12/03/24	12:06	12/06/24 17:10	1
M2-4:2 FTS	53		25 - 150			12/03/24	12:06	12/06/24 17:10	1
M2-6:2 FTS	62		25 - 150			12/03/24	12:06	12/06/24 17:10	1
M2-8:2 FTS	50		25 - 150			12/03/24	12:06	12/06/24 17:10	1
13C2 10:2 FTS	177 *5+		25 - 150			12/03/24	12:06	12/06/24 17:10	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311147 bone**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-3**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.4	0.81	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
Perfluoropentanoic acid (PFPeA)	ND		3.4	0.60	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
Perfluorohexanoic acid (PFHxA)	ND		3.4	0.94	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
Perfluoroheptanoic acid (PFHpA)	ND		3.4	0.40	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
L-Perfluoroctanoic acid	ND		3.4	0.70	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
Br-Perfluoroctanoic acid	ND		3.4	0.70	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
Total PFOA	ND		3.4	0.70	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.79 J</b>		3.4	0.60	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.64 J</b>		3.4	0.36	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
Perfluoroundecanoic acid (PFUnA)	ND		3.4	0.94	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
Perfluorobutanesulfonic acid (PFBS)	ND		3.4	0.59	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
Perfluoropentanesulfonic acid (PFPeS)	ND		3.4	0.62	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
Br-Perfluorohexanesulfonic acid	ND		3.4	0.51	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
<b>Total PFHxS</b>	<b>22</b>		3.4	0.51	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>22</b>		3.4	0.51	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>16</b>		3.4	0.64	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>810 E</b>		8.6	0.70	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>260</b>		8.6	0.70	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
<b>Total PFOS</b>	<b>1100</b>		8.6	0.70	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
4:2 FTS	ND		3.4	0.92	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
6:2 FTS	ND		3.4	1.5	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
8:2 FTS	ND		3.4	0.34	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
10:2 FTS	ND		3.4	0.35	ug/Kg	12/03/24 12:06	12/06/24 17:30		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	103		25 - 150			12/03/24 12:06	12/06/24 17:30		1
13C5 PFPeA	87		25 - 150			12/03/24 12:06	12/06/24 17:30		1
13C2 PFHxA	92		25 - 150			12/03/24 12:06	12/06/24 17:30		1
13C4 PFHpA	98		25 - 150			12/03/24 12:06	12/06/24 17:30		1
13C4 PFOA	84		25 - 150			12/03/24 12:06	12/06/24 17:30		1
13C5 PFNA	92		25 - 150			12/03/24 12:06	12/06/24 17:30		1
13C2 PFDA	88		25 - 150			12/03/24 12:06	12/06/24 17:30		1
13C2 PFUnA	75		25 - 150			12/03/24 12:06	12/06/24 17:30		1
13C3 PFBS	92		25 - 150			12/03/24 12:06	12/06/24 17:30		1
18O2 PFHxS	97		25 - 150			12/03/24 12:06	12/06/24 17:30		1
13C4 PFOS	79		25 - 150			12/03/24 12:06	12/06/24 17:30		1
M2-4:2 FTS	64		25 - 150			12/03/24 12:06	12/06/24 17:30		1
M2-6:2 FTS	71		25 - 150			12/03/24 12:06	12/06/24 17:30		1
M2-8:2 FTS	60		25 - 150			12/03/24 12:06	12/06/24 17:30		1
13C2 10:2 FTS	123		25 - 150			12/03/24 12:06	12/06/24 17:30		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311148 liver**

**Lab Sample ID: 320-117199-4**

**Matrix: Tissue**

Date Collected: 11/13/24 00:00

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.9	0.44	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.32	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
Perfluorohexanoic acid (PFHxA)	ND		1.9	0.51	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.21	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
L-Perfluoroctanoic acid	ND		1.9	0.37	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
Br-Perfluoroctanoic acid	ND		1.9	0.37	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
Total PFOA	ND		1.9	0.37	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>26</b>		1.9	0.32	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>37</b>		1.9	0.19	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>4.1</b>		1.9	0.50	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.31	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.9	0.34	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
4:2 FTS	ND		1.9	0.49	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
<b>6:2 FTS</b>	<b>0.96</b>	<b>J</b>	1.9	0.79	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
<b>8:2 FTS</b>	<b>31</b>		1.9	0.19	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
10:2 FTS	ND		1.9	0.19	ug/Kg	12/03/24 12:06	12/06/24 17:49		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	91		25 - 150				12/03/24 12:06	12/06/24 17:49	1
13C5 PFPeA	99		25 - 150				12/03/24 12:06	12/06/24 17:49	1
13C2 PFHxA	113		25 - 150				12/03/24 12:06	12/06/24 17:49	1
13C4 PFHpA	99		25 - 150				12/03/24 12:06	12/06/24 17:49	1
13C4 PFOA	94		25 - 150				12/03/24 12:06	12/06/24 17:49	1
13C5 PFNA	82		25 - 150				12/03/24 12:06	12/06/24 17:49	1
13C2 PFDA	99		25 - 150				12/03/24 12:06	12/06/24 17:49	1
13C2 PFUnA	94		25 - 150				12/03/24 12:06	12/06/24 17:49	1
13C3 PFBS	97		25 - 150				12/03/24 12:06	12/06/24 17:49	1
M2-4:2 FTS	76		25 - 150				12/03/24 12:06	12/06/24 17:49	1
M2-6:2 FTS	157	*5+	25 - 150				12/03/24 12:06	12/06/24 17:49	1
M2-8:2 FTS	68		25 - 150				12/03/24 12:06	12/06/24 17:49	1
13C2 10:2 FTS	247	*5+	25 - 150				12/03/24 12:06	12/06/24 17:49	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	ND		190	27	ug/Kg	12/03/24 12:06	12/10/24 19:35		100
<b>Total PFHxS</b>	<b>220</b>		190	27	ug/Kg	12/03/24 12:06	12/10/24 19:35		100
<b>L-Perfluorohexanesulfonic acid</b>	<b>220</b>		190	27	ug/Kg	12/03/24 12:06	12/10/24 19:35		100
<b>Perfluoroheptanesulfonic acid (PFHps)</b>	<b>330</b>		190	34	ug/Kg	12/03/24 12:06	12/10/24 19:35		100
L-Perfluorooctanesulfonic acid	44000	E	460	38	ug/Kg	12/03/24 12:06	12/10/24 19:35		100
Br-Perfluorooctanesulfonic acid	21000	E	460	38	ug/Kg	12/03/24 12:06	12/10/24 19:35		100
<b>Total PFOS</b>	<b>65000</b>		460	38	ug/Kg	12/03/24 12:06	12/10/24 19:35		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	107		25 - 150				12/03/24 12:06	12/10/24 19:35	100
13C4 PFOS	85		25 - 150				12/03/24 12:06	12/10/24 19:35	100

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311148**

**Lab Sample ID: 320-117199-5**

Date Collected: 11/13/24 00:00

Matrix: Tissue

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.92	0.22	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
Perfluoropentanoic acid (PFPeA)	ND		0.92	0.16	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.34 J I</b>		0.92	0.25	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
Perfluoroheptanoic acid (PFHpA)	ND		0.92	0.11	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
L-Perfluoroctanoic acid	ND		0.92	0.19	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
Br-Perfluoroctanoic acid	ND		0.92	0.19	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
Total PFOA	ND		0.92	0.19	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.92</b>		0.92	0.16	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.1</b>		0.92	0.094	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
Perfluoroundecanoic acid (PFUnA)	ND		0.92	0.25	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.92	0.16	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.92	0.17	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
Br-Perfluorohexanesulfonic acid	ND		0.92	0.14	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
<b>Total PFHxS</b>	<b>38</b>		0.92	0.14	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>38</b>		0.92	0.14	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
<b>Perfluoroheptanesulfonic acid (PFHxS)</b>	<b>23</b>		0.92	0.17	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
L-Perfluoroctanesulfonic acid	1200 E		2.3	0.19	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
Br-Perfluoroctanesulfonic acid	480 E		2.3	0.19	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
<b>Total PFOS</b>	<b>1700</b>		2.3	0.19	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
4:2 FTS	ND		0.92	0.24	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
6:2 FTS	ND		0.92	0.39	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
<b>8:2 FTS</b>	<b>0.48 J</b>		0.92	0.092	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
10:2 FTS	ND		0.92	0.093	ug/Kg		12/03/24 12:06	12/06/24 18:09	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	72		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
13C5 PFPeA	70		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
13C2 PFHxA	75		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
13C4 PFHpA	69		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
13C4 PFOA	64		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
13C5 PFNA	68		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
13C2 PFDA	68		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
13C2 PFUnA	63		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
13C3 PFBS	61		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
18O2 PFHxS	70		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
13C4 PFOS	52		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
M2-4:2 FTS	48		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
M2-6:2 FTS	66		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
M2-8:2 FTS	45		25 - 150			12/03/24 12:06	12/06/24 18:09	1	
13C2 10:2 FTS	134		25 - 150			12/03/24 12:06	12/06/24 18:09	1	

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311148 bone**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-6**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.8	0.91	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
Perfluoropentanoic acid (PFPeA)	ND		3.8	0.67	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
Perfluorohexanoic acid (PFHxA)	ND		3.8	1.1	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
Perfluoroheptanoic acid (PFHpA)	ND		3.8	0.45	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
L-Perfluoroctanoic acid	ND		3.8	0.78	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
Br-Perfluoroctanoic acid	ND		3.8	0.78	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
Total PFOA	ND		3.8	0.78	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.91</b>	<b>J</b>	3.8	0.67	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.97</b>	<b>J</b>	3.8	0.40	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
Perfluoroundecanoic acid (PFUnA)	ND		3.8	1.0	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
Perfluorobutanesulfonic acid (PFBS)	ND		3.8	0.65	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
Perfluoropentanesulfonic acid (PFPeS)	ND		3.8	0.70	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
Br-Perfluorohexanesulfonic acid	ND		3.8	0.57	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
<b>Total PFHxS</b>	<b>45</b>		3.8	0.57	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>45</b>		3.8	0.57	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>27</b>		3.8	0.71	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>1000</b>	<b>E</b>	9.6	0.78	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>360</b>	<b>E</b>	9.6	0.78	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
<b>Total PFOS</b>	<b>1400</b>		9.6	0.78	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
4:2 FTS	ND		3.8	1.0	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
6:2 FTS	ND		3.8	1.6	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
8:2 FTS	ND		3.8	0.38	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
10:2 FTS	ND		3.8	0.39	ug/Kg	12/03/24 12:06	12/06/24 18:28		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	127		25 - 150			12/03/24 12:06	12/06/24 18:28		1
13C5 PFPeA	116		25 - 150			12/03/24 12:06	12/06/24 18:28		1
13C2 PFHxA	116		25 - 150			12/03/24 12:06	12/06/24 18:28		1
13C4 PFHpA	115		25 - 150			12/03/24 12:06	12/06/24 18:28		1
13C4 PFOA	95		25 - 150			12/03/24 12:06	12/06/24 18:28		1
13C5 PFNA	108		25 - 150			12/03/24 12:06	12/06/24 18:28		1
13C2 PFDA	100		25 - 150			12/03/24 12:06	12/06/24 18:28		1
13C2 PFUnA	91		25 - 150			12/03/24 12:06	12/06/24 18:28		1
13C3 PFBS	100		25 - 150			12/03/24 12:06	12/06/24 18:28		1
18O2 PFHxS	123		25 - 150			12/03/24 12:06	12/06/24 18:28		1
13C4 PFOS	93		25 - 150			12/03/24 12:06	12/06/24 18:28		1
M2-4:2 FTS	82		25 - 150			12/03/24 12:06	12/06/24 18:28		1
M2-6:2 FTS	79		25 - 150			12/03/24 12:06	12/06/24 18:28		1
M2-8:2 FTS	65		25 - 150			12/03/24 12:06	12/06/24 18:28		1
13C2 10:2 FTS	126		25 - 150			12/03/24 12:06	12/06/24 18:28		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311149 liver**

**Lab Sample ID: 320-117199-7**

**Matrix: Tissue**

Date Collected: 11/13/24 00:00

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.3	0.55	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
Perfluoropentanoic acid (PFPeA)	ND		2.3	0.41	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
Perfluorohexanoic acid (PFHxA)	ND		2.3	0.63	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
Perfluoroheptanoic acid (PFHpA)	ND		2.3	0.27	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
<b>L-Perfluorooctanoic acid</b>	<b>0.53 J</b>		2.3	0.47	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
Br-Perfluorooctanoic acid	ND		2.3	0.47	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
<b>Total PFOA</b>	<b>0.53 J</b>		2.3	0.47	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>45</b>		2.3	0.41	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>34</b>		2.3	0.24	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>3.9</b>		2.3	0.63	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
Perfluorobutanesulfonic acid (PFBS)	ND		2.3	0.40	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.3	0.42	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
Br-Perfluorohexanesulfonic acid	ND		2.3	0.34	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
<b>Total PFHxS</b>	<b>150</b>		2.3	0.34	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>150</b>		2.3	0.34	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>250</b>		230	43	ug/Kg	12/03/24 12:06	12/10/24 20:33	100	
<b>L-Perfluoroctanesulfonic acid</b>	<b>31000 E</b>		580	47	ug/Kg	12/03/24 12:06	12/10/24 20:33	100	
<b>Br-Perfluoroctanesulfonic acid</b>	<b>15000</b>		580	47	ug/Kg	12/03/24 12:06	12/10/24 20:33	100	
<b>Total PFOS</b>	<b>46000</b>		580	47	ug/Kg	12/03/24 12:06	12/10/24 20:33	100	
4:2 FTS	ND		2.3	0.62	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
6:2 FTS	ND		2.3	0.99	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
<b>8:2 FTS</b>	<b>15</b>		2.3	0.23	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
10:2 FTS	ND		2.3	0.23	ug/Kg	12/03/24 12:06	12/06/24 18:47		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	63		25 - 150			12/03/24 12:06	12/06/24 18:47		1
13C5 PFPeA	60		25 - 150			12/03/24 12:06	12/06/24 18:47		1
13C2 PFHxA	66		25 - 150			12/03/24 12:06	12/06/24 18:47		1
13C4 PFHpA	60		25 - 150			12/03/24 12:06	12/06/24 18:47		1
13C4 PFOA	56		25 - 150			12/03/24 12:06	12/06/24 18:47		1
13C5 PFNA	58		25 - 150			12/03/24 12:06	12/06/24 18:47		1
13C2 PFDA	64		25 - 150			12/03/24 12:06	12/06/24 18:47		1
13C2 PFUnA	58		25 - 150			12/03/24 12:06	12/06/24 18:47		1
13C3 PFBS	60		25 - 150			12/03/24 12:06	12/06/24 18:47		1
18O2 PFHxS	64		25 - 150			12/03/24 12:06	12/06/24 18:47		1
13C4 PFOS	49		25 - 150			12/03/24 12:06	12/10/24 20:33	100	
M2-4:2 FTS	48		25 - 150			12/03/24 12:06	12/06/24 18:47		1
M2-6:2 FTS	100		25 - 150			12/03/24 12:06	12/06/24 18:47		1
M2-8:2 FTS	44		25 - 150			12/03/24 12:06	12/06/24 18:47		1
13C2 10:2 FTS	158 *5+		25 - 150			12/03/24 12:06	12/06/24 18:47		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311149**

**Lab Sample ID: 320-117199-8**

Date Collected: 11/13/24 00:00

Matrix: Tissue

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.93	0.22	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
Perfluoropentanoic acid (PFPeA)	ND		0.93	0.16	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
Perfluorohexanoic acid (PFHxA)	ND		0.93	0.25	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
Perfluoroheptanoic acid (PFHpA)	ND		0.93	0.11	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
L-Perfluoroctanoic acid	ND		0.93	0.19	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
Br-Perfluoroctanoic acid	ND		0.93	0.19	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
Total PFOA	ND		0.93	0.19	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>2.2</b>		0.93	0.16	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.0</b>		0.93	0.095	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
Perfluoroundecanoic acid (PFUnA)	ND		0.93	0.25	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.93	0.16	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.93	0.17	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
Br-Perfluorohexanesulfonic acid	ND		0.93	0.14	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
<b>Total PFHxS</b>	<b>36</b>		0.93	0.14	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>36</b>		0.93	0.14	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>38</b>		0.93	0.17	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
L-Perfluoroctanesulfonic acid	1500 E		2.3	0.19	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
Br-Perfluoroctanesulfonic acid	710 E		2.3	0.19	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
<b>Total PFOS</b>	<b>2200</b>		2.3	0.19	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
4:2 FTS	ND		0.93	0.25	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
<b>6:2 FTS</b>	<b>0.42 J</b>		0.93	0.39	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
<b>8:2 FTS</b>	<b>0.55 J</b>		0.93	0.093	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
10:2 FTS	ND		0.93	0.094	ug/Kg	12/03/24 12:06	12/06/24 19:26		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	57		25 - 150			12/03/24 12:06	12/06/24 19:26		1
13C5 PFPeA	53		25 - 150			12/03/24 12:06	12/06/24 19:26		1
13C2 PFHxA	55		25 - 150			12/03/24 12:06	12/06/24 19:26		1
13C4 PFHpA	54		25 - 150			12/03/24 12:06	12/06/24 19:26		1
13C4 PFOA	49		25 - 150			12/03/24 12:06	12/06/24 19:26		1
13C5 PFNA	53		25 - 150			12/03/24 12:06	12/06/24 19:26		1
13C2 PFDA	54		25 - 150			12/03/24 12:06	12/06/24 19:26		1
13C2 PFUnA	50		25 - 150			12/03/24 12:06	12/06/24 19:26		1
13C3 PFBS	51		25 - 150			12/03/24 12:06	12/06/24 19:26		1
18O2 PFHxS	57		25 - 150			12/03/24 12:06	12/06/24 19:26		1
13C4 PFOS	37		25 - 150			12/03/24 12:06	12/06/24 19:26		1
M2-4:2 FTS	37		25 - 150			12/03/24 12:06	12/06/24 19:26		1
M2-6:2 FTS	39		25 - 150			12/03/24 12:06	12/06/24 19:26		1
M2-8:2 FTS	35		25 - 150			12/03/24 12:06	12/06/24 19:26		1
13C2 10:2 FTS	58		25 - 150			12/03/24 12:06	12/06/24 19:26		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311149 bone**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-9**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.6	0.84	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
Perfluoropentanoic acid (PFPeA)	ND		3.6	0.63	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
Perfluorohexanoic acid (PFHxA)	ND		3.6	0.98	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
Perfluoroheptanoic acid (PFHpA)	ND		3.6	0.41	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
L-Perfluoroctanoic acid	ND		3.6	0.72	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
Br-Perfluoroctanoic acid	ND		3.6	0.72	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
Total PFOA	ND		3.6	0.72	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>2.3 J</b>		3.6	0.63	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.1 J</b>		3.6	0.37	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
Perfluoroundecanoic acid (PFUnA)	ND		3.6	0.97	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
Perfluorobutanesulfonic acid (PFBS)	ND		3.6	0.61	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
Perfluoropentanesulfonic acid (PFPeS)	ND		3.6	0.65	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
Br-Perfluorohexanesulfonic acid	ND		3.6	0.53	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
<b>Total PFHxS</b>	<b>55</b>		3.6	0.53	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>55</b>		3.6	0.53	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>49</b>		3.6	0.66	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
L-Perfluoroctanesulfonic acid	1300 E		8.9	0.73	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
Br-Perfluoroctanesulfonic acid	630 E		8.9	0.73	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
<b>Total PFOS</b>	<b>1900</b>		8.9	0.73	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
4:2 FTS	ND		3.6	0.95	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
6:2 FTS	ND		3.6	1.5	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
<b>8:2 FTS</b>	<b>0.43 J</b>		3.6	0.36	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
10:2 FTS	ND		3.6	0.36	ug/Kg	12/03/24 12:06	12/06/24 19:46		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	100		25 - 150			12/03/24 12:06	12/06/24 19:46		1
13C5 PFPeA	81		25 - 150			12/03/24 12:06	12/06/24 19:46		1
13C2 PFHxA	88		25 - 150			12/03/24 12:06	12/06/24 19:46		1
13C4 PFHpA	90		25 - 150			12/03/24 12:06	12/06/24 19:46		1
13C4 PFOA	78		25 - 150			12/03/24 12:06	12/06/24 19:46		1
13C5 PFNA	83		25 - 150			12/03/24 12:06	12/06/24 19:46		1
13C2 PFDA	81		25 - 150			12/03/24 12:06	12/06/24 19:46		1
13C2 PFUnA	74		25 - 150			12/03/24 12:06	12/06/24 19:46		1
13C3 PFBS	75		25 - 150			12/03/24 12:06	12/06/24 19:46		1
18O2 PFHxS	94		25 - 150			12/03/24 12:06	12/06/24 19:46		1
13C4 PFOS	69		25 - 150			12/03/24 12:06	12/06/24 19:46		1
M2-4:2 FTS	52		25 - 150			12/03/24 12:06	12/06/24 19:46		1
M2-6:2 FTS	56		25 - 150			12/03/24 12:06	12/06/24 19:46		1
M2-8:2 FTS	52		25 - 150			12/03/24 12:06	12/06/24 19:46		1
13C2 10:2 FTS	93		25 - 150			12/03/24 12:06	12/06/24 19:46		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311150 liver**

**Lab Sample ID: 320-117199-10**

**Matrix: Tissue**

Date Collected: 11/13/24 00:00

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.9	0.44	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.32	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	0.51	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.21	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
<b>L-Perfluoroctanoic acid</b>	<b>1.4 J</b>		1.9	0.37	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
Br-Perfluoroctanoic acid	ND		1.9	0.37	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
<b>Total PFOA</b>	<b>1.4 J</b>		1.9	0.37	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>79</b>		1.9	0.32	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>34</b>		1.9	0.19	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>1.7 J</b>		1.9	0.50	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.31	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.9	0.34	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
4:2 FTS	ND		1.9	0.49	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
6:2 FTS	ND		1.9	0.79	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
<b>8:2 FTS</b>	<b>11</b>		1.9	0.19	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
<b>10:2 FTS</b>	<b>0.20 J</b>		1.9	0.19	ug/Kg	12/03/24	12:06	12/06/24 20:05	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	76		25 - 150				12/03/24 12:06	12/06/24 20:05	1
13C5 PFPeA	83		25 - 150				12/03/24 12:06	12/06/24 20:05	1
13C2 PFHxA	94		25 - 150				12/03/24 12:06	12/06/24 20:05	1
13C4 PFHpA	84		25 - 150				12/03/24 12:06	12/06/24 20:05	1
13C4 PFOA	75		25 - 150				12/03/24 12:06	12/06/24 20:05	1
13C5 PFNA	65		25 - 150				12/03/24 12:06	12/06/24 20:05	1
13C2 PFDA	85		25 - 150				12/03/24 12:06	12/06/24 20:05	1
13C2 PFUnA	85		25 - 150				12/03/24 12:06	12/06/24 20:05	1
13C3 PFBS	75		25 - 150				12/03/24 12:06	12/06/24 20:05	1
M2-4:2 FTS	58		25 - 150				12/03/24 12:06	12/06/24 20:05	1
M2-6:2 FTS	124		25 - 150				12/03/24 12:06	12/06/24 20:05	1
M2-8:2 FTS	54		25 - 150				12/03/24 12:06	12/06/24 20:05	1
13C2 10:2 FTS	359 *5+		25 - 150				12/03/24 12:06	12/06/24 20:05	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	ND		190	27	ug/Kg	12/03/24	12:06	12/10/24 22:10	100
<b>Total PFHxS</b>	<b>600</b>		190	27	ug/Kg	12/03/24	12:06	12/10/24 22:10	100
<b>L-Perfluorohexanesulfonic acid</b>	<b>600</b>		190	27	ug/Kg	12/03/24	12:06	12/10/24 22:10	100
<b>Perfluoroheptanesulfonic acid (PFHpsS)</b>	<b>1400</b>		190	34	ug/Kg	12/03/24	12:06	12/10/24 22:10	100
<b>L-Perfluorooctanesulfonic acid</b>	<b>76000 E</b>		460	38	ug/Kg	12/03/24	12:06	12/10/24 22:10	100
<b>Br-Perfluorooctanesulfonic acid</b>	<b>45000 E</b>		460	38	ug/Kg	12/03/24	12:06	12/10/24 22:10	100
<b>Total PFOS</b>	<b>120000</b>		460	38	ug/Kg	12/03/24	12:06	12/10/24 22:10	100
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
18O2 PFHxS	88		25 - 150				12/03/24 12:06	12/10/24 22:10	100
13C4 PFOS	68		25 - 150				12/03/24 12:06	12/10/24 22:10	100

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311150**

**Lab Sample ID: 320-117199-11**

Date Collected: 11/13/24 00:00

Matrix: Tissue

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.92	0.22	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
Perfluoropentanoic acid (PFPeA)	ND		0.92	0.16	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
Perfluorohexanoic acid (PFHxA)	ND		0.92	0.25	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
Perfluoroheptanoic acid (PFHpA)	ND		0.92	0.11	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
L-Perfluoroctanoic acid	ND		0.92	0.19	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
Br-Perfluoroctanoic acid	ND		0.92	0.19	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
Total PFOA	ND		0.92	0.19	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>3.2</b>		0.92	0.16	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.4</b>		0.92	0.094	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
Perfluoroundecanoic acid (PFUnA)	ND		0.92	0.25	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.92	0.16	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.92	0.17	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
Br-Perfluorohexanesulfonic acid	0.41 J		0.92	0.14	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
<b>Total PFHxS</b>	<b>110</b>		0.92	0.14	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>110 E</b>		0.92	0.14	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>110</b>		92	17	ug/Kg	12/03/24 12:06	12/10/24 22:49	100	13
L-Perfluoroctanesulfonic acid	4900		230	19	ug/Kg	12/03/24 12:06	12/10/24 22:49	100	14
Br-Perfluoroctanesulfonic acid	1400		230	19	ug/Kg	12/03/24 12:06	12/10/24 22:49	100	14
<b>Total PFOS</b>	<b>6300</b>		230	19	ug/Kg	12/03/24 12:06	12/10/24 22:49	100	14
4:2 FTS	ND		0.92	0.24	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
<b>6:2 FTS</b>	<b>0.81 J</b>		0.92	0.39	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
<b>8:2 FTS</b>	<b>0.35 J</b>		0.92	0.092	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
10:2 FTS	ND		0.92	0.093	ug/Kg	12/03/24 12:06	12/06/24 20:24		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	80		25 - 150			12/03/24 12:06	12/06/24 20:24		1
13C5 PFPeA	79		25 - 150			12/03/24 12:06	12/06/24 20:24		1
13C2 PFHxA	80		25 - 150			12/03/24 12:06	12/06/24 20:24		1
13C4 PFHpA	76		25 - 150			12/03/24 12:06	12/06/24 20:24		1
13C4 PFOA	71		25 - 150			12/03/24 12:06	12/06/24 20:24		1
13C5 PFNA	70		25 - 150			12/03/24 12:06	12/06/24 20:24		1
13C2 PFDA	78		25 - 150			12/03/24 12:06	12/06/24 20:24		1
13C2 PFUnA	67		25 - 150			12/03/24 12:06	12/06/24 20:24		1
13C3 PFBS	64		25 - 150			12/03/24 12:06	12/06/24 20:24		1
18O2 PFHxS	75		25 - 150			12/03/24 12:06	12/06/24 20:24		1
13C4 PFOS	67		25 - 150			12/03/24 12:06	12/10/24 22:49	100	14
M2-4:2 FTS	57		25 - 150			12/03/24 12:06	12/06/24 20:24		1
M2-6:2 FTS	55		25 - 150			12/03/24 12:06	12/06/24 20:24		1
M2-8:2 FTS	51		25 - 150			12/03/24 12:06	12/06/24 20:24		1
13C2 10:2 FTS	275 *5+		25 - 150			12/03/24 12:06	12/06/24 20:24		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311151**  
 Date Collected: 11/13/24 00:00  
 Date Received: 11/20/24 09:40

**Lab Sample ID: 320-117199-12**  
 Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.25	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.28	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
<b>L-Perfluoroctanoic acid</b>	<b>2.7</b>		1.0	0.21	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
Br-Perfluoroctanoic acid	ND		1.0	0.21	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
<b>Total PFOA</b>	<b>2.7</b>		1.0	0.21	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>5.0</b>		1.0	0.18	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.2</b>		1.0	0.11	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.28	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.18	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.19	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
Br-Perfluorohexanesulfonic acid	0.22 J		1.0	0.15	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
<b>Total PFHxS</b>	<b>70</b>		1.0	0.15	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>69</b>		1.0	0.15	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>29</b>		1.0	0.19	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
4:2 FTS	ND		1.0	0.28	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
6:2 FTS	ND		1.0	0.44	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
<b>8:2 FTS</b>	<b>0.34 J</b>		1.0	0.10	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
10:2 FTS	ND		1.0	0.11	ug/Kg	12/03/24 12:06	12/06/24 20:44		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	71		25 - 150				12/03/24 12:06	12/06/24 20:44	1
13C5 PFPeA	78		25 - 150				12/03/24 12:06	12/06/24 20:44	1
13C2 PFHxA	88		25 - 150				12/03/24 12:06	12/06/24 20:44	1
13C4 PFHpA	80		25 - 150				12/03/24 12:06	12/06/24 20:44	1
13C4 PFOA	72		25 - 150				12/03/24 12:06	12/06/24 20:44	1
13C5 PFNA	72		25 - 150				12/03/24 12:06	12/06/24 20:44	1
13C2 PFDA	80		25 - 150				12/03/24 12:06	12/06/24 20:44	1
13C2 PFUnA	74		25 - 150				12/03/24 12:06	12/06/24 20:44	1
13C3 PFBS	80		25 - 150				12/03/24 12:06	12/06/24 20:44	1
18O2 PFHxS	85		25 - 150				12/03/24 12:06	12/06/24 20:44	1
13C4 PFOS	60		25 - 150				12/03/24 12:06	12/06/24 20:44	1
M2-4:2 FTS	56		25 - 150				12/03/24 12:06	12/06/24 20:44	1
M2-6:2 FTS	116		25 - 150				12/03/24 12:06	12/06/24 20:44	1
M2-8:2 FTS	52		25 - 150				12/03/24 12:06	12/06/24 20:44	1
13C2 10:2 FTS	225 *5+		25 - 150				12/03/24 12:06	12/06/24 20:44	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluoroctanesulfonic acid</b>	<b>1500</b>		130	11	ug/Kg	12/03/24 12:06	12/10/24 23:08		50
<b>Br-Perfluoroctanesulfonic acid</b>	<b>460</b>		130	11	ug/Kg	12/03/24 12:06	12/10/24 23:08		50
<b>Total PFOS</b>	<b>2000</b>		130	11	ug/Kg	12/03/24 12:06	12/10/24 23:08		50
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	80		25 - 150				12/03/24 12:06	12/10/24 23:08	50

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311152 liver**

**Lab Sample ID: 320-117199-13**

Date Collected: 11/13/24 00:00

Matrix: Tissue

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.7	0.64	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.53 J</b>		2.7	0.47	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>1.1 J</b>		2.7	0.74	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
Perfluoroheptanoic acid (PFHpA)	ND		2.7	0.31	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
<b>L-Perfluoroctanoic acid</b>	<b>3.0</b>		2.7	0.55	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
Br-Perfluoroctanoic acid	ND		2.7	0.55	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
<b>Total PFOA</b>	<b>3.0</b>		2.7	0.55	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>40</b>		2.7	0.47	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>34</b>		2.7	0.28	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>2.3 J</b>		2.7	0.74	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
Perfluorobutanesulfonic acid (PFBS)	ND		2.7	0.46	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.7	0.49	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
4:2 FTS	ND		2.7	0.72	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
<b>6:2 FTS</b>	<b>2.6 J</b>		2.7	1.1	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
<b>8:2 FTS</b>	<b>16</b>		2.7	0.27	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
10:2 FTS	ND		2.7	0.27	ug/Kg	12/03/24 12:06	12/06/24 21:03		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	84		25 - 150			12/03/24 12:06	12/06/24 21:03		1
13C5 PFPeA	87		25 - 150			12/03/24 12:06	12/06/24 21:03		1
13C2 PFHxA	106		25 - 150			12/03/24 12:06	12/06/24 21:03		1
13C4 PFHpA	97		25 - 150			12/03/24 12:06	12/06/24 21:03		1
13C4 PFOA	77		25 - 150			12/03/24 12:06	12/06/24 21:03		1
13C5 PFNA	79		25 - 150			12/03/24 12:06	12/06/24 21:03		1
13C2 PFDA	92		25 - 150			12/03/24 12:06	12/06/24 21:03		1
13C2 PFUnA	79		25 - 150			12/03/24 12:06	12/06/24 21:03		1
13C3 PFBS	91		25 - 150			12/03/24 12:06	12/06/24 21:03		1
M2-4:2 FTS	89		25 - 150			12/03/24 12:06	12/06/24 21:03		1
M2-6:2 FTS	150		25 - 150			12/03/24 12:06	12/06/24 21:03		1
M2-8:2 FTS	66		25 - 150			12/03/24 12:06	12/06/24 21:03		1
13C2 10:2 FTS	178 *5+		25 - 150			12/03/24 12:06	12/06/24 21:03		1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	ND		270	40	ug/Kg	12/03/24 12:06	12/10/24 23:28		100
<b>Total PFHxS</b>	<b>350</b>		270	40	ug/Kg	12/03/24 12:06	12/10/24 23:28		100
<b>L-Perfluorohexanesulfonic acid</b>	<b>350</b>		270	40	ug/Kg	12/03/24 12:06	12/10/24 23:28		100
<b>Perfluoroheptanesulfonic acid (PFHpsS)</b>	<b>870</b>		270	50	ug/Kg	12/03/24 12:06	12/10/24 23:28		100
<b>L-Perfluorooctanesulfonic acid</b>	<b>62000 E</b>		680	55	ug/Kg	12/03/24 12:06	12/10/24 23:28		100
<b>Br-Perfluorooctanesulfonic acid</b>	<b>44000 E</b>		680	55	ug/Kg	12/03/24 12:06	12/10/24 23:28		100
<b>Total PFOS</b>	<b>110000</b>		680	55	ug/Kg	12/03/24 12:06	12/10/24 23:28		100
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
18O2 PFHxS	87		25 - 150			12/03/24 12:06	12/10/24 23:28		100
13C4 PFOS	76		25 - 150			12/03/24 12:06	12/10/24 23:28		100

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311152**

**Lab Sample ID: 320-117199-14**

Date Collected: 11/13/24 00:00

Matrix: Tissue

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.83	0.20	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
Perfluoropentanoic acid (PFPeA)	ND		0.83	0.15	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
Perfluorohexanoic acid (PFHxA)	ND		0.83	0.23	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
Perfluoroheptanoic acid (PFHpA)	ND		0.83	0.097	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
<b>L-Perfluorooctanoic acid</b>	<b>0.26 J</b>		0.83	0.17	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
Br-Perfluorooctanoic acid	ND		0.83	0.17	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
<b>Total PFOA</b>	<b>0.26 J</b>		0.83	0.17	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>1.1</b>		0.83	0.15	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.1</b>		0.83	0.086	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
Perfluoroundecanoic acid (PFUnA)	ND		0.83	0.23	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.83	0.14	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.83	0.15	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
Br-Perfluorohexanesulfonic acid	0.62 J		0.83	0.12	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
<b>Total PFHxS</b>	<b>67</b>		0.83	0.12	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>67</b>		0.83	0.12	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>66</b>		42	7.7	ug/Kg	12/03/24 12:06	12/10/24 23:47	50	13
<b>L-Perfluorooctanesulfonic acid</b>	<b>3100</b>		100	8.5	ug/Kg	12/03/24 12:06	12/10/24 23:47	50	14
<b>Br-Perfluorooctanesulfonic acid</b>	<b>1000</b>		100	8.5	ug/Kg	12/03/24 12:06	12/10/24 23:47	50	14
<b>Total PFOS</b>	<b>4100</b>		100	8.5	ug/Kg	12/03/24 12:06	12/10/24 23:47	50	14
4:2 FTS	ND		0.83	0.22	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
<b>6:2 FTS</b>	<b>0.43 J</b>		0.83	0.35	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
<b>8:2 FTS</b>	<b>0.51 J</b>		0.83	0.083	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
10:2 FTS	ND		0.83	0.084	ug/Kg	12/03/24 12:06	12/06/24 21:23		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	72		25 - 150			12/03/24 12:06	12/06/24 21:23		1
13C5 PFPeA	62		25 - 150			12/03/24 12:06	12/06/24 21:23		1
13C2 PFHxA	60		25 - 150			12/03/24 12:06	12/06/24 21:23		1
13C4 PFHpA	69		25 - 150			12/03/24 12:06	12/06/24 21:23		1
13C4 PFOA	63		25 - 150			12/03/24 12:06	12/06/24 21:23		1
13C5 PFNA	61		25 - 150			12/03/24 12:06	12/06/24 21:23		1
13C2 PFDA	66		25 - 150			12/03/24 12:06	12/06/24 21:23		1
13C2 PFUnA	64		25 - 150			12/03/24 12:06	12/06/24 21:23		1
13C3 PFBS	63		25 - 150			12/03/24 12:06	12/06/24 21:23		1
18O2 PFHxS	69		25 - 150			12/03/24 12:06	12/06/24 21:23		1
13C4 PFOS	43		25 - 150			12/03/24 12:06	12/06/24 21:23		1
13C4 PFOS	66		25 - 150			12/03/24 12:06	12/10/24 23:47	50	
M2-4:2 FTS	40		25 - 150			12/03/24 12:06	12/06/24 21:23		1
M2-6:2 FTS	55		25 - 150			12/03/24 12:06	12/06/24 21:23		1
M2-8:2 FTS	41		25 - 150			12/03/24 12:06	12/06/24 21:23		1
13C2 10:2 FTS	233 *5+		25 - 150			12/03/24 12:06	12/06/24 21:23		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311153**

**Lab Sample ID: 320-117199-15**

**Matrix: Tissue**

Date Collected: 11/13/24 00:00

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.6	0.38	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.28	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.44	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.50</b>	<b>J</b>	1.6	0.19	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
<b>L-Perfluorooctanoic acid</b>	<b>21</b>		1.6	0.33	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
Br-Perfluorooctanoic acid	ND		1.6	0.33	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
<b>Total PFOA</b>	<b>21</b>		1.6	0.33	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>6.1</b>		1.6	0.28	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.17	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.44	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.27	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>2.4</b>		1.6	0.29	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
Br-Perfluorohexanesulfonic acid	25		1.6	0.24	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
<b>Total PFHxS</b>	<b>610</b>		1.6	0.24	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>580</b>	<b>E</b>	1.6	0.24	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>61</b>		1.6	0.30	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
L-Perfluoroctanesulfonic acid	570	E	4.0	0.33	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
Br-Perfluoroctanesulfonic acid	580	E	4.0	0.33	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
<b>Total PFOS</b>	<b>1100</b>		4.0	0.33	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
4:2 FTS	ND		1.6	0.43	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
6:2 FTS	ND		1.6	0.68	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
8:2 FTS	ND		1.6	0.16	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
<b>10:2 FTS</b>	<b>0.16</b>	<b>J</b>	1.6	0.16	ug/Kg	12/03/24 12:06	12/06/24 21:42		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	109		25 - 150			12/03/24 12:06	12/06/24 21:42		1
13C5 PFPeA	90		25 - 150			12/03/24 12:06	12/06/24 21:42		1
13C2 PFHxA	104		25 - 150			12/03/24 12:06	12/06/24 21:42		1
13C4 PFHpA	100		25 - 150			12/03/24 12:06	12/06/24 21:42		1
13C4 PFOA	88		25 - 150			12/03/24 12:06	12/06/24 21:42		1
13C5 PFNA	95		25 - 150			12/03/24 12:06	12/06/24 21:42		1
13C2 PFDA	94		25 - 150			12/03/24 12:06	12/06/24 21:42		1
13C2 PFUnA	94		25 - 150			12/03/24 12:06	12/06/24 21:42		1
13C3 PFBS	91		25 - 150			12/03/24 12:06	12/06/24 21:42		1
18O2 PFHxS	95		25 - 150			12/03/24 12:06	12/06/24 21:42		1
13C4 PFOS	84		25 - 150			12/03/24 12:06	12/06/24 21:42		1
M2-4:2 FTS	57		25 - 150			12/03/24 12:06	12/06/24 21:42		1
M2-6:2 FTS	80		25 - 150			12/03/24 12:06	12/06/24 21:42		1
M2-8:2 FTS	63		25 - 150			12/03/24 12:06	12/06/24 21:42		1
13C2 10:2 FTS	182	*5+	25 - 150			12/03/24 12:06	12/06/24 21:42		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311154 liver**

**Lab Sample ID: 320-117199-16**

Date Collected: 11/13/24 00:00

Matrix: Tissue

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.8	0.43	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.64</b>	<b>J</b>	1.8	0.32	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>1.1</b>	<b>J</b>	1.8	0.50	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.24</b>	<b>J</b>	1.8	0.21	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
<b>L-Perfluoroctanoic acid</b>	<b>3.5</b>		1.8	0.37	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
Br-Perfluoroctanoic acid	ND		1.8	0.37	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
<b>Total PFOA</b>	<b>3.5</b>		1.8	0.37	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>70</b>		1.8	0.32	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>47</b>		1.8	0.19	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>3.4</b>		1.8	0.49	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.31	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>0.37</b>	<b>J</b>	1.8	0.33	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
4:2 FTS	ND		1.8	0.48	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
<b>6:2 FTS</b>	<b>8.7</b>		1.8	0.77	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
<b>8:2 FTS</b>	<b>23</b>		1.8	0.18	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
10:2 FTS	ND		1.8	0.18	ug/Kg	12/03/24 12:06	12/06/24 22:01		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	61		25 - 150				12/03/24 12:06	12/06/24 22:01	1
13C5 PFPeA	62		25 - 150				12/03/24 12:06	12/06/24 22:01	1
13C2 PFHxA	72		25 - 150				12/03/24 12:06	12/06/24 22:01	1
13C4 PFHpA	59		25 - 150				12/03/24 12:06	12/06/24 22:01	1
13C4 PFOA	56		25 - 150				12/03/24 12:06	12/06/24 22:01	1
13C5 PFNA	58		25 - 150				12/03/24 12:06	12/06/24 22:01	1
13C2 PFDA	61		25 - 150				12/03/24 12:06	12/06/24 22:01	1
13C2 PFUnA	61		25 - 150				12/03/24 12:06	12/06/24 22:01	1
13C3 PFBS	60		25 - 150				12/03/24 12:06	12/06/24 22:01	1
M2-4:2 FTS	57		25 - 150				12/03/24 12:06	12/06/24 22:01	1
M2-6:2 FTS	51		25 - 150				12/03/24 12:06	12/06/24 22:01	1
M2-8:2 FTS	45		25 - 150				12/03/24 12:06	12/06/24 22:01	1
13C2 10:2 FTS	243	*5+	25 - 150				12/03/24 12:06	12/06/24 22:01	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	ND		180	27	ug/Kg	12/03/24 12:06	12/11/24 00:45		100
<b>Total PFHxS</b>	<b>360</b>		180	27	ug/Kg	12/03/24 12:06	12/11/24 00:45		100
<b>L-Perfluorohexanesulfonic acid</b>	<b>360</b>		180	27	ug/Kg	12/03/24 12:06	12/11/24 00:45		100
<b>Perfluoroheptanesulfonic acid (PFHps)</b>	<b>520</b>		180	34	ug/Kg	12/03/24 12:06	12/11/24 00:45		100
<b>L-Perfluoroctanesulfonic acid</b>	<b>41000</b>	<b>E</b>	450	37	ug/Kg	12/03/24 12:06	12/11/24 00:45		100
<b>Br-Perfluoroctanesulfonic acid</b>	<b>25000</b>	<b>E</b>	450	37	ug/Kg	12/03/24 12:06	12/11/24 00:45		100
<b>Total PFOS</b>	<b>66000</b>		450	37	ug/Kg	12/03/24 12:06	12/11/24 00:45		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	70		25 - 150				12/03/24 12:06	12/11/24 00:45	100
13C4 PFOS	60		25 - 150				12/03/24 12:06	12/11/24 00:45	100

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311154**

**Lab Sample ID: 320-117199-17**

**Matrix: Tissue**

Date Collected: 11/13/24 00:00

Date Received: 11/20/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.18	J	0.76	0.18	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
Perfluoropentanoic acid (PFPeA)	ND		0.76	0.13	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
Perfluorohexanoic acid (PFHxA)	ND		0.76	0.21	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
Perfluoroheptanoic acid (PFHpA)	ND		0.76	0.088	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
<b>L-Perfluorooctanoic acid</b>	<b>0.25</b>	<b>J</b>	0.76	0.15	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
Br-Perfluorooctanoic acid	ND		0.76	0.15	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
<b>Total PFOA</b>	<b>0.25</b>	<b>J</b>	0.76	0.15	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>2.2</b>		0.76	0.13	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.8</b>		0.76	0.078	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
Perfluoroundecanoic acid (PFUnA)	ND		0.76	0.21	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.76	0.13	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.76	0.14	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
4:2 FTS	ND		0.76	0.20	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
<b>6:2 FTS</b>	<b>1.1</b>		0.76	0.32	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
<b>8:2 FTS</b>	<b>0.62</b>	<b>J</b>	0.76	0.076	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
10:2 FTS	ND		0.76	0.077	ug/Kg	12/03/24 12:06	12/06/24 22:21		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	70		25 - 150				12/03/24 12:06	12/06/24 22:21	1
13C5 PFPeA	72		25 - 150				12/03/24 12:06	12/06/24 22:21	1
13C2 PFHxA	86		25 - 150				12/03/24 12:06	12/06/24 22:21	1
13C4 PFHpA	77		25 - 150				12/03/24 12:06	12/06/24 22:21	1
13C4 PFOA	77		25 - 150				12/03/24 12:06	12/06/24 22:21	1
13C5 PFNA	72		25 - 150				12/03/24 12:06	12/06/24 22:21	1
13C2 PFDA	80		25 - 150				12/03/24 12:06	12/06/24 22:21	1
13C2 PFUnA	79		25 - 150				12/03/24 12:06	12/06/24 22:21	1
13C3 PFBS	68		25 - 150				12/03/24 12:06	12/06/24 22:21	1
M2-4:2 FTS	67		25 - 150				12/03/24 12:06	12/06/24 22:21	1
M2-6:2 FTS	109		25 - 150				12/03/24 12:06	12/06/24 22:21	1
M2-8:2 FTS	53		25 - 150				12/03/24 12:06	12/06/24 22:21	1
13C2 10:2 FTS	320	*5+	25 - 150				12/03/24 12:06	12/06/24 22:21	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	ND		76	11	ug/Kg	12/03/24 12:06	12/11/24 01:24		100
<b>Total PFHxS</b>	<b>93</b>		76	11	ug/Kg	12/03/24 12:06	12/11/24 01:24		100
<b>L-Perfluorohexanesulfonic acid</b>	<b>93</b>		76	11	ug/Kg	12/03/24 12:06	12/11/24 01:24		100
Perfluoroheptanesulfonic acid (PFHpS)	73	J	76	14	ug/Kg	12/03/24 12:06	12/11/24 01:24		100
<b>L-Perfluoroctanesulfonic acid</b>	<b>3600</b>		190	15	ug/Kg	12/03/24 12:06	12/11/24 01:24		100
<b>Br-Perfluoroctanesulfonic acid</b>	<b>1100</b>		190	15	ug/Kg	12/03/24 12:06	12/11/24 01:24		100
<b>Total PFOS</b>	<b>4700</b>		190	15	ug/Kg	12/03/24 12:06	12/11/24 01:24		100
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
18O2 PFHxS	88		25 - 150				12/03/24 12:06	12/11/24 01:24	100
13C4 PFOS	80		25 - 150				12/03/24 12:06	12/11/24 01:24	100

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# Isotope Dilution Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PPPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-117199-1	NK 311147 liver	78	85	98	84	75	67	80	75
320-117199-1 - RA	NK 311147 liver								
Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)			
320-117199-1	NK 311147 liver	84	74	127	60				
320-117199-1 - RA	NK 311147 liver					174 *5+			

### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 M102FTS = 13C2 10:2 FTS

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFHxS (25-150)	PFOS (25-150)						
320-117199-1 - DL	NK 311147 liver	89	65						
320-117199-4 - DL	NK 311148 liver	107	85						
320-117199-10 - DL	NK 311150 liver	88	68						
320-117199-13 - DL	NK 311152 liver	87	76						
320-117199-16 - DL	NK 311154 liver	70	60						
320-117199-17 - DL	NK 311154	88	80						

### Surrogate Legend

PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PPPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-117199-4	NK 311148 liver	91	99	113	99	94	82	99	94
320-117199-10	NK 311150 liver	76	83	94	84	75	65	85	85
320-117199-13	NK 311152 liver	84	87	106	97	77	79	92	79
320-117199-16	NK 311154 liver	61	62	72	59	56	58	61	61
320-117199-17	NK 311154	70	72	86	77	77	72	80	79

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# Isotope Dilution Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)					
		C3PFBS (25-150)	PFHxS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)
320-117199-4	NK 311148 liver	97		76	157 *5+	68	247 *5+
320-117199-10	NK 311150 liver	75		58	124	54	359 *5+
320-117199-13	NK 311152 liver	91		89	150	66	178 *5+
320-117199-16	NK 311154 liver	60		57	51	45	243 *5+
320-117199-17	NK 311154	68		67	109	53	320 *5+

### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 M102FTS = 13C2 10:2 FTS

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-117199-2	NK 311147	77	73	77	73	63	70	72	70
320-117199-3	NK 311147 bone	103	87	92	98	84	92	88	75
320-117199-5	NK 311148	72	70	75	69	64	68	68	63
320-117199-6	NK 311148 bone	127	116	116	115	95	108	100	91
320-117199-7	NK 311149 liver	63	60	66	60	56	58	64	58
320-117199-8	NK 311149	57	53	55	54	49	53	54	50
320-117199-9	NK 311149 bone	100	81	88	90	78	83	81	74
320-117199-11	NK 311150	80	79	80	76	71	70	78	67
320-117199-12	NK 311151	71	78	88	80	72	72	80	74
320-117199-14	NK 311152	72	62	60	69	63	61	66	64
320-117199-15	NK 311153	109	90	104	100	88	95	94	94
LCS 320-818987/2-A	Lab Control Sample	76	65	74	75	64	72	70	65
LCSD 320-818987/3-A	Lab Control Sample Dup	87	87	91	87	81	89	85	86
MB 320-818987/1-A	Method Blank	83	72	75	84	84	84	86	79

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)						
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)
320-117199-2	NK 311147	67	78	51	53	62	50	177 *5+
320-117199-3	NK 311147 bone	92	97	79	64	71	60	123
320-117199-5	NK 311148	61	70	52	48	66	45	134
320-117199-6	NK 311148 bone	100	123	93	82	79	65	126
320-117199-7	NK 311149 liver	60	64		48	100	44	158 *5+
320-117199-8	NK 311149	51	57	37	37	39	35	58
320-117199-9	NK 311149 bone	75	94	69	52	56	52	93

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# Isotope Dilution Summary

Client: University of New Mexico

Job ID: 320-117199-1

Project/Site: UNM\_PFAS in Tissue, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)						
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)
320-117199-11	NK 311150	64	75	57	55	51	275 *5+	
320-117199-12	NK 311151	80	85	60	56	116	52	225 *5+
320-117199-14	NK 311152	63	69	43	40	55	41	233 *5+
320-117199-15	NK 311153	91	95	84	57	80	63	182 *5+
LCS 320-818987/2-A	Lab Control Sample	73	72	69	46	57	48	300 *5+
LCSD 320-818987/3-A	Lab Control Sample Dup	83	95	88	65	72	62	419 *5+
MB 320-818987/1-A	Method Blank	81	92	76	57	68	62	381 *5+

### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 M102FTS = 13C2 10:2 FTS

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)						
		PFOS (25-150)						
320-117199-7	NK 311149 liver	49						
320-117199-11	NK 311150	67						
320-117199-12 - DL	NK 311151	80						
320-117199-14	NK 311152	66						

### Surrogate Legend

PFOS = 13C4 PFOS

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

**Lab Sample ID: MB 320-818987/1-A**

**Matrix: Tissue**

**Analysis Batch: 820056**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 818987**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Total PFOA	ND		1.0	0.20	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.10	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.27	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Total PFHxS	ND		1.0	0.15	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
L-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Br-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
Total PFOS	ND		2.5	0.20	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
4:2 FTS	ND		1.0	0.27	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
6:2 FTS	ND		1.0	0.42	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
8:2 FTS	ND		1.0	0.10	ug/Kg		12/03/24 12:06	12/06/24 15:53	1
10:2 FTS	ND		1.0	0.10	ug/Kg		12/03/24 12:06	12/06/24 15:53	1

Isotope Dilution	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	83		25 - 150		12/03/24 12:06	12/06/24 15:53
13C5 PFPeA	72		25 - 150		12/03/24 12:06	12/06/24 15:53
13C2 PFHxA	75		25 - 150		12/03/24 12:06	12/06/24 15:53
13C4 PFHpA	84		25 - 150		12/03/24 12:06	12/06/24 15:53
13C4 PFOA	84		25 - 150		12/03/24 12:06	12/06/24 15:53
13C5 PFNA	84		25 - 150		12/03/24 12:06	12/06/24 15:53
13C2 PFDA	86		25 - 150		12/03/24 12:06	12/06/24 15:53
13C2 PFUnA	79		25 - 150		12/03/24 12:06	12/06/24 15:53
13C3 PFBS	81		25 - 150		12/03/24 12:06	12/06/24 15:53
18O2 PFHxS	92		25 - 150		12/03/24 12:06	12/06/24 15:53
13C4 PFOS	76		25 - 150		12/03/24 12:06	12/06/24 15:53
M2-4:2 FTS	57		25 - 150		12/03/24 12:06	12/06/24 15:53
M2-6:2 FTS	68		25 - 150		12/03/24 12:06	12/06/24 15:53
M2-8:2 FTS	62		25 - 150		12/03/24 12:06	12/06/24 15:53
13C2 10:2 FTS	381 *5+		25 - 150		12/03/24 12:06	12/06/24 15:53

**Lab Sample ID: LCS 320-818987/2-A**

**Matrix: Tissue**

**Analysis Batch: 820056**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 818987**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	10.0	10.8		ug/Kg		108	76 - 136

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-818987/2-A**

**Matrix: Tissue**

**Analysis Batch: 820056**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 818987**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoropentanoic acid (PFPeA)	10.0	8.77		ug/Kg		88	69 - 129
Perfluorohexanoic acid (PFHxA)	10.0	9.70		ug/Kg		97	71 - 131
Perfluoroheptanoic acid (PFHpA)	10.0	9.89		ug/Kg		99	71 - 131
L-Perfluoroctanoic acid	10.0	10.4		ug/Kg		104	72 - 132
Total PFOA	10.0	10.4		ug/Kg		104	
Perfluorononanoic acid (PFNA)	10.0	8.98		ug/Kg		90	73 - 133
Perfluorodecanoic acid (PFDA)	10.0	9.96		ug/Kg		100	72 - 132
Perfluoroundecanoic acid (PFUnA)	10.0	8.79		ug/Kg		88	66 - 126
Perfluorobutanesulfonic acid (PFBS)	8.88	8.84		ug/Kg		99	69 - 129
Perfluoropentanesulfonic acid (PFPeS)	9.40	8.32		ug/Kg		89	66 - 126
Total PFHxS	9.12	8.45		ug/Kg		93	
L-Perfluorohexanesulfonic acid	9.12	8.45		ug/Kg		93	62 - 122
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.2		ug/Kg		107	76 - 136
L-Perfluoroctanesulfonic acid	9.30	9.10		ug/Kg		98	68 - 141
Total PFOS	9.30	9.10		ug/Kg		98	
4:2 FTS	9.38	10.5		ug/Kg		112	68 - 143
6:2 FTS	9.52	9.93		ug/Kg		104	73 - 139
8:2 FTS	9.60	10.1		ug/Kg		105	75 - 135
10:2 FTS	9.66	8.86		ug/Kg		92	69 - 145

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	76		25 - 150
13C5 PFPeA	65		25 - 150
13C2 PFHxA	74		25 - 150
13C4 PFHpA	75		25 - 150
13C4 PFOA	64		25 - 150
13C5 PFNA	72		25 - 150
13C2 PFDA	70		25 - 150
13C2 PFUnA	65		25 - 150
13C3 PFBS	73		25 - 150
18O2 PFHxS	72		25 - 150
13C4 PFOS	69		25 - 150
M2-4:2 FTS	46		25 - 150
M2-6:2 FTS	57		25 - 150
M2-8:2 FTS	48		25 - 150
13C2 10:2 FTS	300 *5+		25 - 150

**Lab Sample ID: LCSD 320-818987/3-A**

**Matrix: Tissue**

**Analysis Batch: 820056**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 818987**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	10.0	10.9		ug/Kg		109	76 - 136	1	30
Perfluoropentanoic acid (PFPeA)	10.0	9.93		ug/Kg		99	69 - 129	12	30
Perfluorohexanoic acid (PFHxA)	10.0	10.0		ug/Kg		100	71 - 131	3	30
Perfluoroheptanoic acid (PFHpA)	10.0	10.9		ug/Kg		109	71 - 131	9	30

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-818987/3-A**

**Matrix: Tissue**

**Analysis Batch: 820056**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 818987**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
L-Perfluoroctanoic acid	10.0	10.7		ug/Kg		107	72 - 132	3	30
Total PFOA	10.0	10.7		ug/Kg		107		3	
Perfluorononanoic acid (PFNA)	10.0	9.79		ug/Kg		98	73 - 133	9	30
Perfluorodecanoic acid (PFDA)	10.0	11.0		ug/Kg		110	72 - 132	10	30
Perfluoroundecanoic acid (PFUnA)	10.0	9.40		ug/Kg		94	66 - 126	7	30
Perfluorobutanesulfonic acid (PFBS)	8.88	9.45		ug/Kg		106	69 - 129	7	30
Perfluoropentanesulfonic acid (PFPeS)	9.40	9.95		ug/Kg		106	66 - 126	18	30
Total PFHxS	9.12	8.51		ug/Kg		93		1	
L-Perfluorohexanesulfonic acid	9.12	8.51		ug/Kg		93	62 - 122	1	30
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.9		ug/Kg		115	76 - 136	7	30
L-Perfluoroctanesulfonic acid	9.30	11.7		ug/Kg		126	68 - 141	25	30
Total PFOS	9.30	11.7		ug/Kg		126		25	
4:2 FTS	9.38	10.0		ug/Kg		107	68 - 143	4	30
6:2 FTS	9.52	10.1		ug/Kg		106	73 - 139	1	30
8:2 FTS	9.60	11.1		ug/Kg		115	75 - 135	9	30
10:2 FTS	9.66	10.0		ug/Kg		104	69 - 145	12	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	87		25 - 150
13C5 PFPeA	87		25 - 150
13C2 PFHxA	91		25 - 150
13C4 PFHpA	87		25 - 150
13C4 PFOA	81		25 - 150
13C5 PFNA	89		25 - 150
13C2 PFDA	85		25 - 150
13C2 PFUnA	86		25 - 150
13C3 PFBS	83		25 - 150
18O2 PFHxS	95		25 - 150
13C4 PFOS	88		25 - 150
M2-4:2 FTS	65		25 - 150
M2-6:2 FTS	72		25 - 150
M2-8:2 FTS	62		25 - 150
13C2 10:2 FTS	419 *5+		25 - 150

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# QC Association Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## LCMS

### Pre Prep Batch: 818986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117199-1 - RA	NK 311147 liver	Total/NA	Tissue	In-House	1
320-117199-1 - DL	NK 311147 liver	Total/NA	Tissue	In-House	2
320-117199-1	NK 311147 liver	Total/NA	Tissue	In-House	3
320-117199-2	NK 311147	Total/NA	Tissue	In-House	4
320-117199-3	NK 311147 bone	Total/NA	Tissue	In-House	5
320-117199-4	NK 311148 liver	Total/NA	Tissue	In-House	6
320-117199-4 - DL	NK 311148 liver	Total/NA	Tissue	In-House	7
320-117199-5	NK 311148	Total/NA	Tissue	In-House	8
320-117199-6	NK 311148 bone	Total/NA	Tissue	In-House	9
320-117199-7	NK 311149 liver	Total/NA	Tissue	In-House	10
320-117199-8	NK 311149	Total/NA	Tissue	In-House	11
320-117199-9	NK 311149 bone	Total/NA	Tissue	In-House	12
320-117199-10	NK 311150 liver	Total/NA	Tissue	In-House	13
320-117199-10 - DL	NK 311150 liver	Total/NA	Tissue	In-House	14
320-117199-11	NK 311150	Total/NA	Tissue	In-House	
320-117199-12 - DL	NK 311151	Total/NA	Tissue	In-House	
320-117199-12	NK 311151	Total/NA	Tissue	In-House	
320-117199-13 - DL	NK 311152 liver	Total/NA	Tissue	In-House	
320-117199-13	NK 311152 liver	Total/NA	Tissue	In-House	
320-117199-14	NK 311152	Total/NA	Tissue	In-House	
320-117199-15	NK 311153	Total/NA	Tissue	In-House	
320-117199-16 - DL	NK 311154 liver	Total/NA	Tissue	In-House	
320-117199-16	NK 311154 liver	Total/NA	Tissue	In-House	
320-117199-17	NK 311154	Total/NA	Tissue	In-House	
320-117199-17 - DL	NK 311154	Total/NA	Tissue	In-House	

### Prep Batch: 818987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117199-1 - DL	NK 311147 liver	Total/NA	Tissue	SHAKE	818986
320-117199-1 - RA	NK 311147 liver	Total/NA	Tissue	SHAKE	818986
320-117199-1	NK 311147 liver	Total/NA	Tissue	SHAKE	818986
320-117199-2	NK 311147	Total/NA	Tissue	SHAKE	818986
320-117199-3	NK 311147 bone	Total/NA	Tissue	SHAKE	818986
320-117199-4 - DL	NK 311148 liver	Total/NA	Tissue	SHAKE	818986
320-117199-4	NK 311148 liver	Total/NA	Tissue	SHAKE	818986
320-117199-5	NK 311148	Total/NA	Tissue	SHAKE	818986
320-117199-6	NK 311148 bone	Total/NA	Tissue	SHAKE	818986
320-117199-7	NK 311149 liver	Total/NA	Tissue	SHAKE	818986
320-117199-8	NK 311149	Total/NA	Tissue	SHAKE	818986
320-117199-9	NK 311149 bone	Total/NA	Tissue	SHAKE	818986
320-117199-10 - DL	NK 311150 liver	Total/NA	Tissue	SHAKE	818986
320-117199-10	NK 311150 liver	Total/NA	Tissue	SHAKE	818986
320-117199-11	NK 311150	Total/NA	Tissue	SHAKE	818986
320-117199-12 - DL	NK 311151	Total/NA	Tissue	SHAKE	818986
320-117199-12	NK 311151	Total/NA	Tissue	SHAKE	818986
320-117199-13	NK 311152 liver	Total/NA	Tissue	SHAKE	818986
320-117199-13 - DL	NK 311152 liver	Total/NA	Tissue	SHAKE	818986
320-117199-14	NK 311152	Total/NA	Tissue	SHAKE	818986
320-117199-15	NK 311153	Total/NA	Tissue	SHAKE	818986
320-117199-16 - DL	NK 311154 liver	Total/NA	Tissue	SHAKE	818986
320-117199-16	NK 311154 liver	Total/NA	Tissue	SHAKE	818986

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# QC Association Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## LCMS (Continued)

### Prep Batch: 818987 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117199-17 - DL	NK 311154	Total/NA	Tissue	SHAKE	818986
320-117199-17	NK 311154	Total/NA	Tissue	SHAKE	818986
MB 320-818987/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-818987/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-818987/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

### Analysis Batch: 820056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117199-1	NK 311147 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-2	NK 311147	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-3	NK 311147 bone	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-4	NK 311148 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-5	NK 311148	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-6	NK 311148 bone	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-7	NK 311149 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-8	NK 311149	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-9	NK 311149 bone	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-10	NK 311150 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-11	NK 311150	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-12	NK 311151	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-13	NK 311152 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-14	NK 311152	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-15	NK 311153	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-16	NK 311154 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-17	NK 311154	Total/NA	Tissue	B/L/T PFAS	818987
MB 320-818987/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	818987
LCS 320-818987/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	818987
LCSD 320-818987/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	818987

### Analysis Batch: 821094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117199-1 - DL	NK 311147 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-1 - RA	NK 311147 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-4 - DL	NK 311148 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-7	NK 311149 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-10 - DL	NK 311150 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-11	NK 311150	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-12 - DL	NK 311151	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-13 - DL	NK 311152 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-14	NK 311152	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-16 - DL	NK 311154 liver	Total/NA	Tissue	B/L/T PFAS	818987
320-117199-17 - DL	NK 311154	Total/NA	Tissue	B/L/T PFAS	818987

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311147 liver**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-1**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.46 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 16:51	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE	DL		0.46 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	821094	12/10/24 18:17	P1R	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE	RA		0.46 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	821094	12/10/24 18:37	P1R	EET SAC

**Client Sample ID: NK 311147**

**Lab Sample ID: 320-117199-2**

**Matrix: Tissue**

**Date Collected: 11/13/24 00:00**

**Date Received: 11/20/24 09:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			1.19 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 17:10	P1R	EET SAC

**Client Sample ID: NK 311147 bone**

**Lab Sample ID: 320-117199-3**

**Matrix: Tissue**

**Date Collected: 11/13/24 00:00**

**Date Received: 11/20/24 09:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.29 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 17:30	P1R	EET SAC

**Client Sample ID: NK 311148 liver**

**Lab Sample ID: 320-117199-4**

**Matrix: Tissue**

**Date Collected: 11/13/24 00:00**

**Date Received: 11/20/24 09:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.54 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 17:49	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE	DL		0.54 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	821094	12/10/24 19:35	P1R	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311148**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-5**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			1.09 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 18:09	P1R	EET SAC

**Client Sample ID: NK 311148 bone**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-6**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.26 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 18:28	P1R	EET SAC

**Client Sample ID: NK 311149 liver**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-7**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.43 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 18:47	P1R	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.43 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		100	1 mL	1 mL	821094	12/10/24 20:33	P1R	EET SAC

**Client Sample ID: NK 311149**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-8**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			1.08 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 19:26	P1R	EET SAC

**Client Sample ID: NK 311149 bone**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-9**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.28 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 19:46	P1R	EET SAC

Eurofins Sacramento

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311150 liver**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-10**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.54 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 20:05	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE	DL		0.54 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	821094	12/10/24 22:10	P1R	EET SAC

**Client Sample ID: NK 311150**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-11**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			1.09 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 20:24	P1R	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			1.09 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		100	1 mL	1 mL	821094	12/10/24 22:49	P1R	EET SAC

**Client Sample ID: NK 311151**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-12**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.96 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 20:44	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE	DL		0.96 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	821094	12/10/24 23:08	P1R	EET SAC

**Client Sample ID: NK 311152 liver**  
**Date Collected: 11/13/24 00:00**  
**Date Received: 11/20/24 09:40**

**Lab Sample ID: 320-117199-13**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.37 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 21:03	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE	DL		0.37 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	821094	12/10/24 23:28	P1R	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

**Client Sample ID: NK 311152**

**Lab Sample ID: 320-117199-14**

**Matrix: Tissue**

Date Collected: 11/13/24 00:00

Date Received: 11/20/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			1.20 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 21:23	P1R	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			1.20 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		50	1 mL	1 mL	821094	12/10/24 23:47	P1R	EET SAC

**Client Sample ID: NK 311153**

**Lab Sample ID: 320-117199-15**

**Matrix: Tissue**

Date Collected: 11/13/24 00:00

Date Received: 11/20/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.62 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 21:42	P1R	EET SAC

**Client Sample ID: NK 311154 liver**

**Lab Sample ID: 320-117199-16**

**Matrix: Tissue**

Date Collected: 11/13/24 00:00

Date Received: 11/20/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			0.55 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 22:01	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE	DL		0.55 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	821094	12/11/24 00:45	P1R	EET SAC

**Client Sample ID: NK 311154**

**Lab Sample ID: 320-117199-17**

**Matrix: Tissue**

Date Collected: 11/13/24 00:00

Date Received: 11/20/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE			1.32 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820056	12/06/24 22:21	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	818986	12/03/24 12:04	ATB	EET SAC
Total/NA	Prep	SHAKE	DL		1.32 g	10.0 mL	818987	12/03/24 12:06	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	821094	12/11/24 01:24	P1R	EET SAC

## Laboratory References:

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

Eurofins Sacramento

# Accreditation/Certification Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

## Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468	01-20-27
Arizona	State	AZ0708	08-11-25
Arkansas DEQ	State	88-0691	05-18-25
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-25
Florida	NELAP	E87570	06-30-25
Georgia	State	4040	01-29-25
Hawaii	State	Eurofins Sacramento	01-29-25
Illinois	NELAP	200060	03-31-25
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-25
Louisiana (All)	NELAP	01944	06-30-25
Maine	State	CA00004	04-14-26
Michigan	State	9947	01-29-25
Minnesota	NELAP	2749448	12-31-25
Nevada	State	CA00044	07-31-25
New Hampshire	NELAP	2997	04-19-25
New Jersey	NELAP	CA005	06-30-25
New York	NELAP	11666	04-01-25
Ohio	State	41252	01-29-25
Oregon	NELAP	4040	01-29-25
Texas	NELAP	T104704399-23-17	05-31-25
US Fish & Wildlife	US Federal Programs	A22139	04-30-25
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-25
Virginia	NELAP	460278	03-14-25
Washington	State	C581	05-05-25
West Virginia (DW)	State	9930C	01-31-25
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Sacramento

## Method Summary

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

Method	Method Description	Protocol	Laboratory
B/L/T PFAS	Branched, Linear and Total PFAS	EPA	EET SAC
In-House	Tissue Preparation/Homgenization	NOAA	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

### Protocol References:

EPA = US Environmental Protection Agency

NOAA = National Marine Fisheries Service, National Oceanic And Atmospheric Administration, Seattle, WA, November 1988

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

### Laboratory References:

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

# Sample Summary

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117199-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
320-117199-1	NK 311147 liver	Tissue	11/13/24 00:00	11/20/24 09:40	1
320-117199-2	NK 311147	Tissue	11/13/24 00:00	11/20/24 09:40	2
320-117199-3	NK 311147 bone	Tissue	11/13/24 00:00	11/20/24 09:40	3
320-117199-4	NK 311148 liver	Tissue	11/13/24 00:00	11/20/24 09:40	4
320-117199-5	NK 311148	Tissue	11/13/24 00:00	11/20/24 09:40	5
320-117199-6	NK 311148 bone	Tissue	11/13/24 00:00	11/20/24 09:40	6
320-117199-7	NK 311149 liver	Tissue	11/13/24 00:00	11/20/24 09:40	7
320-117199-8	NK 311149	Tissue	11/13/24 00:00	11/20/24 09:40	8
320-117199-9	NK 311149 bone	Tissue	11/13/24 00:00	11/20/24 09:40	9
320-117199-10	NK 311150 liver	Tissue	11/13/24 00:00	11/20/24 09:40	10
320-117199-11	NK 311150	Tissue	11/13/24 00:00	11/20/24 09:40	11
320-117199-12	NK 311151	Tissue	11/13/24 00:00	11/20/24 09:40	12
320-117199-13	NK 311152 liver	Tissue	11/13/24 00:00	11/20/24 09:40	13
320-117199-14	NK 311152	Tissue	11/13/24 00:00	11/20/24 09:40	14
320-117199-15	NK 311153	Tissue	11/13/24 00:00	11/20/24 09:40	
320-117199-16	NK 311154 liver	Tissue	11/13/24 00:00	11/20/24 09:40	
320-117199-17	NK 311154	Tissue	11/13/24 00:00	11/20/24 09:40	

## **Chain of Custody Record**



**Environment Testing  
America**

Preservation Used: 1=Ice; 2=HCl; 3=H<sub>2</sub>SO<sub>4</sub>; 4=HNO<sub>3</sub>; 5=NaOH; 6=Other

#### **Possible Hazard Identification**

Non-Howard       Elementary       Other

*Sample Disposal / A fee may be assessed if samples are retained longer than 1 month.*

**Sample Disposal** (A fee may be assessed if samples are retained longer than 1 month.)

**Special Instructions:** (DG Requirements & G)

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:



## Environment Testing

Loc: 320

117199

## Sacramento Sample Receiving Notes (SSRN)

Tracking # 7700 8108 9118

Job \_\_\_\_\_

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
GSL / OnTrac / Goldstreak / USPS / Other

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations  
File in the job folder with the COC

*\*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")*

Initials DM Date 11/21/29

Initials DM Date 11/21/24

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Jean-Luc Cartron  
University of New Mexico  
Museum of Southwestern Biology  
Division of Mammals  
CERIA Bldg 83, Room 204  
Albuquerque, New Mexico 87131

Generated 12/23/2024 9:22:18 AM

## JOB DESCRIPTION

UNM\_Soil & Snake Skin, Holloman

## JOB NUMBER

320-117252-1

# Eurofins Sacramento

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northern California, LLC Project Manager.

## Authorization



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Authorized for release by  
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(916)374-4362

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# Definitions/Glossary

Client: University of New Mexico  
Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## Qualifiers

LCMS	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⊕	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

# Case Narrative

Client: University of New Mexico  
Project: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

**Job ID: 320-117252-1**

**Eurofins Sacramento**

## Job Narrative 320-117252-1

### Comments

This report contains data for samples requested for PFAS. Data for samples requested for TOC are included in the report for Job 320-117252-2.

### Receipt

The samples were received on 11/21/2024 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3° C.

### Receipt Exceptions

Collection times were not provided. Samples were logged in with a default time of 00:00.

### LCMS

Method B/L/T PFAS: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for some samples. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method B/L/T PFAS: The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: NE-2-200- m (320-117252-5), NE-4-200- m (320-117252-6), (320-117252-A-6-B MS) and (320-117252-A-6-CMSD). These analytes have been qualified; however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

Method B/L/T PFAS: Some results for sample C atrox skin (320-117252-7) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method B/L/T PFAS: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 320-817586 were outside control limits for one or more analytes. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits .Due to the high concentration of L-Perfluorohexanesulfonic acid and L-Perfluoroctanesulfonic acid, the MS/MSD could not be evaluated for accuracy and precision for these analytes.

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

### General Chemistry

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

### Organic Prep

Method SHAKE: The following samples were discolored following extraction: NE-2-100- m (320-117252-3), NE-4-100- m (320-117252-4), NE-4-200- m (320-117252-6), (320-117252-6 MS) and (320-117252-6 MSD).

Method SHAKE: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-819252.

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

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## Client Sample ID: NE-2-100- m

## Lab Sample ID: 320-117252-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.56		0.19	0.030	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.1		0.19	0.037	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	0.69		0.19	0.052	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.12	J	0.19	0.052	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.81		0.19	0.052	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.094	J	0.19	0.021	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.095	J	0.19	0.036	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.54		0.19	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	3.4		0.19	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	2.8		0.19	0.028	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.081	J	0.19	0.048	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	2.4		0.19	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	1.6		0.19	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	4.1		0.19	0.042	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.74		0.19	0.026	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NE-4-100- m

## Lab Sample ID: 320-117252-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.30		0.18	0.029	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.1		0.18	0.035	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	0.97		0.18	0.049	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.27		0.18	0.049	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.2		0.18	0.049	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.15	J	0.18	0.020	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.22		0.18	0.034	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	4.2		0.18	0.027	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	20		0.18	0.027	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	16		0.18	0.027	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.15	J	0.18	0.045	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	3.6		0.18	0.040	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	2.5		0.18	0.040	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	6.1		0.18	0.040	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.50		0.18	0.025	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NE-2-200- m

## Lab Sample ID: 320-117252-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.051	J	0.20	0.031	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.0		0.20	0.038	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	3.7		0.20	0.053	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.94		0.20	0.053	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	4.6		0.20	0.053	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.45		0.20	0.022	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.038	J	0.20	0.037	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	3.0		0.20	0.029	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	32		0.20	0.029	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	29	E	0.20	0.029	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## Client Sample ID: NE-2-200- m (Continued)

## Lab Sample ID: 320-117252-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanesulfonic acid (PFHpS)	0.39		0.20	0.049	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	11		0.20	0.043	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	5.6		0.20	0.043	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	17		0.20	0.043	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.38		0.20	0.027	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NE-4-200- m

## Lab Sample ID: 320-117252-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.066	J	0.19	0.044	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	0.075	J	0.19	0.039	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	1.7		0.19	0.029	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	4.6	F1	0.19	0.036	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	3.8	F1	0.19	0.050	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	0.88		0.19	0.050	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	4.7	F1	0.19	0.050	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.72		0.19	0.021	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.094	J	0.19	0.045	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.076	J	0.19	0.040	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.091	J	0.19	0.036	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.39		0.19	0.035	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	4.9		0.19	0.027	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	26		0.19	0.027	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	21	E	0.19	0.027	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.62		0.19	0.046	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	15		0.19	0.041	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	12		0.19	0.041	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	27		0.19	0.041	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	1.1		0.19	0.026	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.044	J	0.19	0.033	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: C atrox skin

## Lab Sample ID: 320-117252-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
8:2 FTS	66		0.85	0.085	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	60	J	85	15	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	93		85	23	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid - DL	220		85	17	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid - DL	19	J	85	17	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	240		85	17	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	110		85	15	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	100		85	13	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	970		85	13	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	870		85	13	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	160		85	16	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	7200		210	17	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	3200		210	17	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	10000		210	17	ug/Kg	100		B/L/T PFAS	Total/NA
6:2 FTS - DL	1500		85	36	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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## Detection Summary

Client: University of New Mexico

Job ID: 320-117252-1

Project/Site: UNM\_Soil & Snake Skin, Holloman

### **Client Sample ID: C atrox skin (Continued)**

### **Lab Sample ID: 320-117252-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA) - RA	12		0.85	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA) - RA	45		0.85	0.099	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA) - RA	12		0.85	0.088	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA) - RA	1.6		0.85	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS) - RA	12		0.85	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS) - RA	22		0.85	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS - RA	0.53	J	0.85	0.086	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

**Client Sample ID: NE-2-100- m**

**Lab Sample ID: 320-117252-3**

**Matrix: Solid**

Date Collected: 11/19/24 00:00

Date Received: 11/21/24 09:25

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.19	0.045	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Perfluoropentanoic acid (PPeA)	ND		0.19	0.040	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Perfluorohexanoic acid (PFHxA)	0.56		0.19	0.030	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Perfluoroheptanoic acid (PFHpA)	1.1		0.19	0.037	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
L-Perfluorooctanoic acid	0.69		0.19	0.052	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Br-Perfluorooctanoic acid	0.12 J		0.19	0.052	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
<b>Total PFOA</b>	<b>0.81</b>		0.19	0.052	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Perfluorononanoic acid (PFNA)	0.094 J		0.19	0.021	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Perfluorodecanoic acid (PFDA)	ND		0.19	0.047	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Perfluoroundecanoic acid (PFUnA)	ND		0.19	0.041	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.19	0.037	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Perfluoropentanesulfonic acid (PPeS)	0.095 J		0.19	0.036	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Br-Perfluorohexanesulfonic acid	0.54		0.19	0.028	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
<b>Total PFHxS</b>	<b>3.4</b>		0.19	0.028	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
L-Perfluorohexanesulfonic acid	2.8		0.19	0.028	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Perfluoroheptanesulfonic acid (PFHpS)	0.081 J		0.19	0.048	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
L-Perfluoroctanesulfonic acid	2.4		0.19	0.042	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Br-Perfluoroctanesulfonic acid	1.6		0.19	0.042	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
<b>Total PFOS</b>	<b>4.1</b>		0.19	0.042	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
4:2 FTS	ND		0.19	0.050	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
<b>6:2 FTS</b>	<b>0.74</b>		0.19	0.026	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
8:2 FTS	ND		0.19	0.034	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
10:2 FTS	ND		0.19	0.037	ug/Kg	11/25/24 04:16	11/26/24 15:17		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	110		25 - 150				11/25/24 04:16	11/26/24 15:17	1
13C5 PPeA	110		25 - 150				11/25/24 04:16	11/26/24 15:17	1
13C2 PFHxA	113		25 - 150				11/25/24 04:16	11/26/24 15:17	1
13C4 PFHpA	101		25 - 150				11/25/24 04:16	11/26/24 15:17	1
13C4 PFOA	91		25 - 150				11/25/24 04:16	11/26/24 15:17	1
13C5 PFNA	111		25 - 150				11/25/24 04:16	11/26/24 15:17	1
13C2 PFDA	101		25 - 150				11/25/24 04:16	11/26/24 15:17	1
13C2 PFUnA	96		25 - 150				11/25/24 04:16	11/26/24 15:17	1
13C3 PFBS	103		25 - 150				11/25/24 04:16	11/26/24 15:17	1
18O2 PFHxS	98		25 - 150				11/25/24 04:16	11/26/24 15:17	1
13C4 PFOS	97		25 - 150				11/25/24 04:16	11/26/24 15:17	1
M2-4:2 FTS	87		25 - 150				11/25/24 04:16	11/26/24 15:17	1
M2-6:2 FTS	97		25 - 150				11/25/24 04:16	11/26/24 15:17	1
M2-8:2 FTS	84		25 - 150				11/25/24 04:16	11/26/24 15:17	1
13C2 10:2 FTS	116		25 - 150				11/25/24 04:16	11/26/24 15:17	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D2216-92)	26		0.10	0.10	%		12/03/24 14:12		1
Percent Solids (ASTM D2216-92)	74		0.10	0.10	%		12/03/24 14:12		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

**Client Sample ID: NE-4-100- m**

**Lab Sample ID: 320-117252-4**

**Matrix: Solid**

Date Collected: 11/19/24 00:00

Date Received: 11/21/24 09:25

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.18	0.043	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Perfluoropentanoic acid (PPeA)	ND		0.18	0.038	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Perfluorohexanoic acid (PFHxA)	0.30		0.18	0.029	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Perfluoroheptanoic acid (PFHpA)	3.1		0.18	0.035	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
L-Perfluorooctanoic acid	0.97		0.18	0.049	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Br-Perfluorooctanoic acid	0.27		0.18	0.049	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
<b>Total PFOA</b>	<b>1.2</b>		0.18	0.049	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Perfluorononanoic acid (PFNA)	0.15	J	0.18	0.020	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Perfluorodecanoic acid (PFDA)	ND		0.18	0.044	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Perfluoroundecanoic acid (PFUnA)	ND		0.18	0.039	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.18	0.035	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Perfluoropentanesulfonic acid (PPeS)	0.22		0.18	0.034	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Br-Perfluorohexanesulfonic acid	4.2		0.18	0.027	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
<b>Total PFHxS</b>	<b>20</b>		0.18	0.027	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
L-Perfluorohexanesulfonic acid	16		0.18	0.027	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Perfluoroheptanesulfonic acid (PFHpS)	0.15	J	0.18	0.045	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
L-Perfluoroctanesulfonic acid	3.6		0.18	0.040	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Br-Perfluoroctanesulfonic acid	2.5		0.18	0.040	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
<b>Total PFOS</b>	<b>6.1</b>		0.18	0.040	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
4:2 FTS	ND		0.18	0.047	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
<b>6:2 FTS</b>	<b>0.50</b>		0.18	0.025	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
8:2 FTS	ND		0.18	0.032	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
10:2 FTS	ND		0.18	0.035	ug/Kg	11/25/24 04:16	11/26/24 15:36		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	99		25 - 150			11/25/24 04:16	11/26/24 15:36		1
13C5 PPeA	107		25 - 150			11/25/24 04:16	11/26/24 15:36		1
13C2 PFHxA	108		25 - 150			11/25/24 04:16	11/26/24 15:36		1
13C4 PFHpA	105		25 - 150			11/25/24 04:16	11/26/24 15:36		1
13C4 PFOA	92		25 - 150			11/25/24 04:16	11/26/24 15:36		1
13C5 PFNA	100		25 - 150			11/25/24 04:16	11/26/24 15:36		1
13C2 PFDA	97		25 - 150			11/25/24 04:16	11/26/24 15:36		1
13C2 PFUnA	89		25 - 150			11/25/24 04:16	11/26/24 15:36		1
13C3 PFBS	104		25 - 150			11/25/24 04:16	11/26/24 15:36		1
18O2 PFHxS	97		25 - 150			11/25/24 04:16	11/26/24 15:36		1
13C4 PFOS	96		25 - 150			11/25/24 04:16	11/26/24 15:36		1
M2-4:2 FTS	106		25 - 150			11/25/24 04:16	11/26/24 15:36		1
M2-6:2 FTS	110		25 - 150			11/25/24 04:16	11/26/24 15:36		1
M2-8:2 FTS	76		25 - 150			11/25/24 04:16	11/26/24 15:36		1
13C2 10:2 FTS	135		25 - 150			11/25/24 04:16	11/26/24 15:36		1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D2216-92)	15		0.10	0.10	%		12/03/24 14:12		1
Percent Solids (ASTM D2216-92)	85		0.10	0.10	%		12/03/24 14:12		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

**Client Sample ID: NE-2-200- m**

**Lab Sample ID: 320-117252-5**

**Matrix: Solid**

Date Collected: 11/19/24 00:00

Date Received: 11/21/24 09:25

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.20	0.046	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.041	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Perfluorohexanoic acid (PFHxA)	0.051 J		0.20	0.031	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Perfluoroheptanoic acid (PFHpA)	1.0		0.20	0.038	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
L-Perfluorooctanoic acid	3.7		0.20	0.053	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Br-Perfluorooctanoic acid	0.94		0.20	0.053	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
<b>Total PFOA</b>	<b>4.6</b>		0.20	0.053	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Perfluorononanoic acid (PFNA)	0.45		0.20	0.022	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.048	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.042	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.038	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Perfluoropentanesulfonic acid (PFPeS)	0.038 J		0.20	0.037	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Br-Perfluorohexanesulfonic acid	3.0		0.20	0.029	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
<b>Total PFHxS</b>	<b>32</b>		0.20	0.029	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
L-Perfluorohexanesulfonic acid	29 E		0.20	0.029	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Perfluoroheptanesulfonic acid (PFHpS)	0.39		0.20	0.049	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
L-Perfluoroctanesulfonic acid	11		0.20	0.043	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Br-Perfluoroctanesulfonic acid	5.6		0.20	0.043	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
<b>Total PFOS</b>	<b>17</b>		0.20	0.043	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
4:2 FTS	ND		0.20	0.051	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
<b>6:2 FTS</b>	<b>0.38</b>		0.20	0.027	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
8:2 FTS	ND		0.20	0.035	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
10:2 FTS	ND		0.20	0.038	ug/Kg	11/25/24 04:16	11/26/24 15:55		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	104		25 - 150			11/25/24 04:16	11/26/24 15:55		1
13C5 PFPeA	101		25 - 150			11/25/24 04:16	11/26/24 15:55		1
13C2 PFHxA	95		25 - 150			11/25/24 04:16	11/26/24 15:55		1
13C4 PFHpA	105		25 - 150			11/25/24 04:16	11/26/24 15:55		1
13C4 PFOA	85		25 - 150			11/25/24 04:16	11/26/24 15:55		1
13C5 PFNA	98		25 - 150			11/25/24 04:16	11/26/24 15:55		1
13C2 PFDA	99		25 - 150			11/25/24 04:16	11/26/24 15:55		1
13C2 PFUnA	93		25 - 150			11/25/24 04:16	11/26/24 15:55		1
13C3 PFBS	97		25 - 150			11/25/24 04:16	11/26/24 15:55		1
18O2 PFHxS	97		25 - 150			11/25/24 04:16	11/26/24 15:55		1
13C4 PFOS	92		25 - 150			11/25/24 04:16	11/26/24 15:55		1
M2-4:2 FTS	93		25 - 150			11/25/24 04:16	11/26/24 15:55		1
M2-6:2 FTS	83		25 - 150			11/25/24 04:16	11/26/24 15:55		1
M2-8:2 FTS	79		25 - 150			11/25/24 04:16	11/26/24 15:55		1
13C2 10:2 FTS	94		25 - 150			11/25/24 04:16	11/26/24 15:55		1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D2216-92)	19		0.10	0.10	%		12/03/24 14:12		1
Percent Solids (ASTM D2216-92)	81		0.10	0.10	%		12/03/24 14:12		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

**Client Sample ID: NE-4-200- m**

**Lab Sample ID: 320-117252-6**

**Matrix: Solid**

Date Collected: 11/19/24 00:00

Date Received: 11/21/24 09:25

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.066	J	0.19	0.044	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Perfluoropentanoic acid (PFPeA)	0.075	J	0.19	0.039	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Perfluorohexanoic acid (PFHxA)	1.7		0.19	0.029	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Perfluoroheptanoic acid (PFHpA)	4.6	F1	0.19	0.036	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
L-Perfluorooctanoic acid	3.8	F1	0.19	0.050	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Br-Perfluorooctanoic acid	0.88		0.19	0.050	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Total PFOA	4.7	F1	0.19	0.050	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Perfluorononanoic acid (PFNA)	0.72		0.19	0.021	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Perfluorodecanoic acid (PFDA)	0.094	J	0.19	0.045	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Perfluoroundecanoic acid (PFUnA)	0.076	J	0.19	0.040	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Perfluorobutanesulfonic acid (PFBS)	0.091	J	0.19	0.036	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Perfluoropentanesulfonic acid (PFPeS)	0.39		0.19	0.035	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Br-Perfluorohexanesulfonic acid	4.9		0.19	0.027	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Total PFHxS	26		0.19	0.027	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
L-Perfluorohexanesulfonic acid	21	E	0.19	0.027	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Perfluoroheptanesulfonic acid (PFHpS)	0.62		0.19	0.046	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
L-Perfluorooctanesulfonic acid	15		0.19	0.041	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Br-Perfluorooctanesulfonic acid	12		0.19	0.041	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
Total PFOS	27		0.19	0.041	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
4:2 FTS	ND		0.19	0.048	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
<b>6:2 FTS</b>	<b>1.1</b>		0.19	0.026	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
<b>8:2 FTS</b>	<b>0.044</b>	<b>J</b>	0.19	0.033	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
10:2 FTS	ND		0.19	0.036	ug/Kg	11/25/24 04:16	11/26/24 16:15		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	89		25 - 150			11/25/24 04:16	11/26/24 16:15		1
13C5 PFPeA	110		25 - 150			11/25/24 04:16	11/26/24 16:15		1
13C2 PFHxA	103		25 - 150			11/25/24 04:16	11/26/24 16:15		1
13C4 PFHpA	95		25 - 150			11/25/24 04:16	11/26/24 16:15		1
13C4 PFOA	83		25 - 150			11/25/24 04:16	11/26/24 16:15		1
13C5 PFNA	94		25 - 150			11/25/24 04:16	11/26/24 16:15		1
13C2 PFDA	94		25 - 150			11/25/24 04:16	11/26/24 16:15		1
13C2 PFUnA	88		25 - 150			11/25/24 04:16	11/26/24 16:15		1
13C3 PFBS	105		25 - 150			11/25/24 04:16	11/26/24 16:15		1
18O2 PFHxS	96		25 - 150			11/25/24 04:16	11/26/24 16:15		1
13C4 PFOS	84		25 - 150			11/25/24 04:16	11/26/24 16:15		1
M2-4:2 FTS	122		25 - 150			11/25/24 04:16	11/26/24 16:15		1
M2-6:2 FTS	91		25 - 150			11/25/24 04:16	11/26/24 16:15		1
M2-8:2 FTS	82		25 - 150			11/25/24 04:16	11/26/24 16:15		1
13C2 10:2 FTS	149		25 - 150			11/25/24 04:16	11/26/24 16:15		1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D2216-92)	33		0.10	0.10	%			12/03/24 14:12	1
Percent Solids (ASTM D2216-92)	67		0.10	0.10	%			12/03/24 14:12	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## Client Sample ID: C atrox skin

Lab Sample ID: 320-117252-7

Matrix: Tissue

Date Collected: 11/19/24 00:00  
 Date Received: 11/21/24 09:25

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	66		0.85	0.085	ug/Kg		12/04/24 11:48	12/10/24 01:47	1
<i>Isotope Dilution</i>	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	130		25 - 150				12/04/24 11:48	12/10/24 01:47	1

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	60	J	85	15	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
Perfluorohexanoic acid (PFHxA)	93		85	23	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
L-Perfluoroctanoic acid	220		85	17	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
Br-Perfluoroctanoic acid	19	J	85	17	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
Total PFOA	240		85	17	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
Perfluorononanoic acid (PFNA)	110		85	15	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
Br-Perfluorohexanesulfonic acid	100		85	13	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
Total PFHxS	970		85	13	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
L-Perfluorohexanesulfonic acid	870		85	13	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
Perfluoroheptanesulfonic acid (PFHpS)	160		85	16	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
L-Perfluoroctanesulfonic acid	7200		210	17	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
Br-Perfluoroctanesulfonic acid	3200		210	17	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
Total PFOS	10000		210	17	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
6:2 FTS	1500		85	36	ug/Kg		12/04/24 11:48	12/16/24 14:25	100
<i>Isotope Dilution</i>	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFPeA	59		25 - 150				12/04/24 11:48	12/16/24 14:25	100
13C2 PFHxA	71		25 - 150				12/04/24 11:48	12/16/24 14:25	100
13C4 PFOA	68		25 - 150				12/04/24 11:48	12/16/24 14:25	100
13C5 PFNA	68		25 - 150				12/04/24 11:48	12/16/24 14:25	100
18O2 PFHxS	86		25 - 150				12/04/24 11:48	12/16/24 14:25	100
13C4 PFOS	61		25 - 150				12/04/24 11:48	12/16/24 14:25	100
M2-6:2 FTS	99		25 - 150				12/04/24 11:48	12/16/24 14:25	100
M2-8:2 FTS	52		25 - 150				12/04/24 11:48	12/16/24 14:25	100

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	12		0.85	0.20	ug/Kg		12/04/24 11:48	12/11/24 03:40	1
Perfluoroheptanoic acid (PFHpA)	45		0.85	0.099	ug/Kg		12/04/24 11:48	12/11/24 03:40	1
Perfluorodecanoic acid (PFDA)	12		0.85	0.088	ug/Kg		12/04/24 11:48	12/11/24 03:40	1
Perfluoroundecanoic acid (PFUnA)	1.6		0.85	0.23	ug/Kg		12/04/24 11:48	12/11/24 03:40	1
Perfluorobutanesulfonic acid (PFBS)	12		0.85	0.15	ug/Kg		12/04/24 11:48	12/11/24 03:40	1
Perfluoropentanesulfonic acid (PFPeS)	22		0.85	0.15	ug/Kg		12/04/24 11:48	12/11/24 03:40	1
4:2 FTS	ND		0.85	0.23	ug/Kg		12/04/24 11:48	12/11/24 03:40	1
10:2 FTS	0.53	J	0.85	0.086	ug/Kg		12/04/24 11:48	12/11/24 03:40	1
<i>Isotope Dilution</i>	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	78		25 - 150				12/04/24 11:48	12/11/24 03:40	1
13C4 PFHpA	85		25 - 150				12/04/24 11:48	12/11/24 03:40	1
13C2 PFDA	90		25 - 150				12/04/24 11:48	12/11/24 03:40	1
13C2 PFUnA	88		25 - 150				12/04/24 11:48	12/11/24 03:40	1
13C3 PFBS	95		25 - 150				12/04/24 11:48	12/11/24 03:40	1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

**Client Sample ID: C atrox skin**

**Lab Sample ID: 320-117252-7**

Date Collected: 11/19/24 00:00

Matrix: Tissue

Date Received: 11/21/24 09:25

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA (Continued)**

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	149		25 - 150	12/04/24 11:48	12/11/24 03:40	1
13C2 10:2 FTS	132		25 - 150	12/04/24 11:48	12/11/24 03:40	1

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# Isotope Dilution Summary

Client: University of New Mexico

Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PPPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-117252-3	NE-2-100- m	110	110	113	101	91	111	101	96
320-117252-4	NE-4-100- m	99	107	108	105	92	100	97	89
320-117252-5	NE-2-200- m	104	101	95	105	85	98	99	93
320-117252-6	NE-4-200- m	89	110	103	95	83	94	94	88
320-117252-6 MS	NE-4-200- m	93	111	109	107	90	106	107	104
320-117252-6 MSD	NE-4-200- m	107	109	112	113	92	108	101	90
LCS 320-817586/2-A	Lab Control Sample	114	101	108	106	98	100	97	88
MB 320-817586/1-A	Method Blank	110	110	112	111	95	111	103	95
Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)	
		103	98	97	87	97	84	116	
320-117252-3	NE-2-100- m	104	97	96	106	110	76	135	
320-117252-4	NE-4-100- m	97	97	92	93	83	79	94	
320-117252-5	NE-2-200- m	105	96	84	122	91	82	149	
320-117252-6	NE-4-200- m	101	106	95	141	107	101	188 *5+	
320-117252-6 MS	NE-4-200- m	116	107	91	153 *5+	108	94	128	
320-117252-6 MSD	NE-4-200- m	113	105	100	98	84	80	115	
LCS 320-817586/2-A	Lab Control Sample	112	110	102	87	91	88	134	
MB 320-817586/1-A	Method Blank								

### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 M102FTS = 13C2 10:2 FTS

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS (25-150)	130						
320-117252-7	C atrox skin								
<b>Surrogate Legend</b>									
M282FTS = M2-8:2 FTS									

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# Isotope Dilution Summary

Client: University of New Mexico

Job ID: 320-117252-1

Project/Site: UNM\_Soil & Snake Skin, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)						
		PFBA (25-150)	C4PFHA (25-150)	PFDA (25-150)	PFUnA (25-150)	C3PFBS (25-150)	M242FTS (25-150)	M102FTS (25-150)
320-117252-7 - RA	C atrox skin	78	85	90	88	95	149	132

**Surrogate Legend**

PFBA = 13C4 PFBA  
 C4PFHA = 13C4 PFHpA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 M242FTS = M2-4:2 FTS  
 M102FTS = 13C2 10:2 FTS

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PPPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-117252-7 - DL	C atrox skin		59	71		68	68		
LCS 320-819252/2-A	Lab Control Sample	87	82	87	91	77	87	87	82
LCSD 320-819252/3-A	Lab Control Sample Dup	95	82	100	86	85	88	89	83
MB 320-819252/1-A	Method Blank	95	79	112	94	87	92	96	89

**Surrogate Legend**

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 M102FTS = 13C2 10:2 FTS

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# QC Sample Results

Client: University of New Mexico

Job ID: 320-117252-1

Project/Site: UNM\_Soil & Snake Skin, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

**Lab Sample ID: MB 320-817586/1-A**

**Matrix: Solid**

**Analysis Batch: 817947**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 817586**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.20	0.046	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluoropentanoic acid (PFPeA)	ND		0.20	0.041	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluorohexanoic acid (PFHxA)	ND		0.20	0.031	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluoroheptanoic acid (PFHpA)	ND		0.20	0.038	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
L-Perfluoroctanoic acid	ND		0.20	0.053	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Br-Perfluoroctanoic acid	ND		0.20	0.053	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Total PFOA	ND		0.20	0.053	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluorononanoic acid (PFNA)	ND		0.20	0.022	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluorodecanoic acid (PFDA)	ND		0.20	0.048	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluoroundecanoic acid (PFUnA)	ND		0.20	0.042	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.20	0.038	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.20	0.037	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Br-Perfluorohexanesulfonic acid	ND		0.20	0.029	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Total PFHxS	ND		0.20	0.029	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
L-Perfluorohexanesulfonic acid	ND		0.20	0.029	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.20	0.049	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
L-Perfluoroctanesulfonic acid	ND		0.20	0.043	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Br-Perfluoroctanesulfonic acid	ND		0.20	0.043	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
Total PFOS	ND		0.20	0.043	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
4:2 FTS	ND		0.20	0.051	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
6:2 FTS	ND		0.20	0.027	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
8:2 FTS	ND		0.20	0.035	ug/Kg		11/25/24 04:16	11/26/24 13:59	1
10:2 FTS	ND		0.20	0.038	ug/Kg		11/25/24 04:16	11/26/24 13:59	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	110		25 - 150		11/25/24 04:16	11/26/24 13:59
13C5 PFPeA	110		25 - 150		11/25/24 04:16	11/26/24 13:59
13C2 PFHxA	112		25 - 150		11/25/24 04:16	11/26/24 13:59
13C4 PFHpA	111		25 - 150		11/25/24 04:16	11/26/24 13:59
13C4 PFOA	95		25 - 150		11/25/24 04:16	11/26/24 13:59
13C5 PFNA	111		25 - 150		11/25/24 04:16	11/26/24 13:59
13C2 PFDA	103		25 - 150		11/25/24 04:16	11/26/24 13:59
13C2 PFUnA	95		25 - 150		11/25/24 04:16	11/26/24 13:59
13C3 PFBS	112		25 - 150		11/25/24 04:16	11/26/24 13:59
18O2 PFHxS	110		25 - 150		11/25/24 04:16	11/26/24 13:59
13C4 PFOS	102		25 - 150		11/25/24 04:16	11/26/24 13:59
M2-4:2 FTS	87		25 - 150		11/25/24 04:16	11/26/24 13:59
M2-6:2 FTS	91		25 - 150		11/25/24 04:16	11/26/24 13:59
M2-8:2 FTS	88		25 - 150		11/25/24 04:16	11/26/24 13:59
13C2 10:2 FTS	134		25 - 150		11/25/24 04:16	11/26/24 13:59

**Lab Sample ID: LCS 320-817586/2-A**

**Matrix: Solid**

**Analysis Batch: 817947**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 817586**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	2.00	1.97		ug/Kg		98	76 - 136

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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-817586/2-A**

**Matrix: Solid**

**Analysis Batch: 817947**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 817586**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoropentanoic acid (PFPeA)	2.00	2.17		ug/Kg		108	74 - 134
Perfluorohexanoic acid (PFHxA)	2.00	1.91		ug/Kg		95	71 - 131
Perfluoroheptanoic acid (PFHpA)	2.00	1.98		ug/Kg		99	71 - 131
L-Perfluoroctanoic acid	2.00	1.83		ug/Kg		91	72 - 132
Total PFOA	2.00	1.83		ug/Kg		91	72 - 132
Perfluorononanoic acid (PFNA)	2.00	1.87		ug/Kg		94	73 - 133
Perfluorodecanoic acid (PFDA)	2.00	2.16		ug/Kg		108	72 - 132
Perfluoroundecanoic acid (PFUnA)	2.00	2.00		ug/Kg		100	75 - 135
Perfluorobutanesulfonic acid (PFBS)	1.78	1.65		ug/Kg		93	69 - 129
Perfluoropentanesulfonic acid (PFPeS)	1.88	1.61		ug/Kg		86	75 - 135
Total PFHxS	1.82	1.72		ug/Kg		95	62 - 122
L-Perfluorohexanesulfonic acid	1.82	1.72		ug/Kg		95	62 - 122
Perfluoroheptanesulfonic acid (PFHpS)	1.91	2.19		ug/Kg		115	76 - 136
L-Perfluoroctanesulfonic acid	1.86	1.83		ug/Kg		99	73 - 133
Total PFOS	1.86	1.83		ug/Kg		99	73 - 133
4:2 FTS	1.88	1.94		ug/Kg		104	71 - 131
6:2 FTS	1.90	1.78		ug/Kg		94	73 - 132
8:2 FTS	1.92	2.09		ug/Kg		109	75 - 135
10:2 FTS	1.93	1.84		ug/Kg		95	69 - 128

Isotope Dilution	LCS	LCS	Limits
	%Recovery	Qualifier	
13C4 PFBA	114		25 - 150
13C5 PFPeA	101		25 - 150
13C2 PFHxA	108		25 - 150
13C4 PFHpA	106		25 - 150
13C4 PFOA	98		25 - 150
13C5 PFNA	100		25 - 150
13C2 PFDA	97		25 - 150
13C2 PFUnA	88		25 - 150
13C3 PFBS	113		25 - 150
18O2 PFHxS	105		25 - 150
13C4 PFOS	100		25 - 150
M2-4:2 FTS	98		25 - 150
M2-6:2 FTS	84		25 - 150
M2-8:2 FTS	80		25 - 150
13C2 10:2 FTS	115		25 - 150

**Lab Sample ID: 320-117252-6 MS**

**Matrix: Solid**

**Analysis Batch: 817947**

**Client Sample ID: NE-4-200- m**

**Prep Type: Total/NA**

**Prep Batch: 817586**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Perfluorobutanoic acid (PFBA)	0.066	J	1.86	2.10		ug/Kg		109	76 - 136
Perfluoropentanoic acid (PFPeA)	0.075	J	1.86	1.88		ug/Kg		97	74 - 134
Perfluorohexanoic acid (PFHxA)	1.7		1.86	3.83		ug/Kg		113	71 - 131
Perfluoroheptanoic acid (PFHpA)	4.6	F1	1.86	6.89		ug/Kg		123	71 - 131

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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: 320-117252-6 MS**

**Matrix: Solid**

**Analysis Batch: 817947**

**Client Sample ID: NE-4-200- m**

**Prep Type: Total/NA**

**Prep Batch: 817586**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
L-Perfluoroctanoic acid	3.8	F1	1.86	8.60	F1	ug/Kg	257	72 - 132	
Total PFOA	4.7	F1	1.86	8.60	F1	ug/Kg	209	72 - 132	
Perfluorononanoic acid (PFNA)	0.72		1.86	2.63		ug/Kg	103	73 - 133	
Perfluorodecanoic acid (PFDA)	0.094	J	1.86	1.88		ug/Kg	96	72 - 132	
Perfluoroundecanoic acid (PFUnA)	0.076	J	1.86	1.83		ug/Kg	94	75 - 135	
Perfluorobutanesulfonic acid (PFBS)	0.091	J	1.65	1.91		ug/Kg	110	69 - 129	
Perfluoropentanesulfonic acid (PFPeS)	0.39		1.75	2.18		ug/Kg	102	75 - 135	
Total PFHxS	26		1.70	33.8	4	ug/Kg	489	62 - 122	
L-Perfluorohexanesulfonic acid	21	E	1.70	33.8	E 4	ug/Kg	776	62 - 122	
Perfluoroheptanesulfonic acid (PFHpS)	0.62		1.77	2.79		ug/Kg	123	76 - 136	
L-Perfluoroctanesulfonic acid	15		1.73	33.9	E 4	ug/Kg	1101	73 - 133	
Total PFOS	27		1.73	33.9	4	ug/Kg	421	73 - 133	
4:2 FTS	ND		1.74	1.67		ug/Kg	96	71 - 131	
6:2 FTS	1.1		1.77	2.81		ug/Kg	96	73 - 132	
8:2 FTS	0.044	J	1.78	1.84		ug/Kg	101	75 - 135	
10:2 FTS	ND		1.80	1.50		ug/Kg	83	69 - 128	
Isotope Dilution	MS %Recovery	MS Qualifier	MS Limits						
13C4 PFBA	93		25 - 150						
13C5 PFPeA	111		25 - 150						
13C2 PFHxA	109		25 - 150						
13C4 PFHpA	107		25 - 150						
13C4 PFOA	90		25 - 150						
13C5 PFNA	106		25 - 150						
13C2 PFDA	107		25 - 150						
13C2 PFUnA	104		25 - 150						
13C3 PFBS	101		25 - 150						
18O2 PFHxS	106		25 - 150						
13C4 PFOS	95		25 - 150						
M2-4:2 FTS	141		25 - 150						
M2-6:2 FTS	107		25 - 150						
M2-8:2 FTS	101		25 - 150						
13C2 10:2 FTS	188	*5+	25 - 150						

**Lab Sample ID: 320-117252-6 MSD**

**Matrix: Solid**

**Analysis Batch: 817947**

**Client Sample ID: NE-4-200- m**

**Prep Type: Total/NA**

**Prep Batch: 817586**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	0.066	J	1.84	1.95		ug/Kg	103	76 - 136		7	30
Perfluoropentanoic acid (PFPeA)	0.075	J	1.84	1.81		ug/Kg	94	74 - 134		4	30
Perfluorohexanoic acid (PFHxA)	1.7		1.84	3.82		ug/Kg	114	71 - 131		0	30
Perfluoroheptanoic acid (PFHpA)	4.6	F1	1.84	5.75	F1	ug/Kg	63	71 - 131		18	30
L-Perfluoroctanoic acid	3.8	F1	1.84	7.66	F1	ug/Kg	209	72 - 132		11	30
Total PFOA	4.7	F1	1.84	7.66	F1	ug/Kg	161	72 - 132		11	30
Perfluorononanoic acid (PFNA)	0.72		1.84	2.39		ug/Kg	91	73 - 133		10	30

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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: 320-117252-6 MSD**

**Matrix: Solid**

**Analysis Batch: 817947**

**Client Sample ID: NE-4-200- m**

**Prep Type: Total/NA**

**Prep Batch: 817586**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Perfluorodecanoic acid (PFDA)	0.094	J	1.84	1.96		ug/Kg		101	72 - 132	4	30
Perfluoroundecanoic acid (PFUnA)	0.076	J	1.84	1.98		ug/Kg		104	75 - 135	8	30
Perfluorobutanesulfonic acid (PFBS)	0.091	J	1.63	1.68		ug/Kg		97	69 - 129	13	30
Perfluoropentanesulfonic acid (PFPeS)	0.39		1.73	1.98		ug/Kg		92	75 - 135	10	30
Total PFHxS	26		1.68	29.4	4	ug/Kg		231	62 - 122	14	30
L-Perfluorohexanesulfonic acid	21	E	1.68	29.4	E 4	ug/Kg		521	62 - 122	14	30
Perfluoroheptanesulfonic acid (PFHpS)	0.62		1.75	2.74		ug/Kg		121	76 - 136	2	30
L-Perfluoroctanesulfonic acid	15		1.71	31.5	E 4	ug/Kg		974	73 - 133	7	30
Total PFOS	27		1.71	31.5	4	ug/Kg		287	73 - 133	7	30
4:2 FTS	ND		1.72	1.50		ug/Kg		87	71 - 131	10	30
6:2 FTS	1.1		1.75	2.73		ug/Kg		92	73 - 132	3	30
8:2 FTS	0.044	J	1.76	1.77		ug/Kg		98	75 - 135	4	30
10:2 FTS	ND		1.78	1.66		ug/Kg		94	69 - 128	11	30

Isotope Dilution	MSD	MSD	Limits
	%Recovery	Qualifier	
13C4 PFBA	107		25 - 150
13C5 PFPeA	109		25 - 150
13C2 PFHxA	112		25 - 150
13C4 PFHpA	113		25 - 150
13C4 PFOA	92		25 - 150
13C5 PFNA	108		25 - 150
13C2 PFDA	101		25 - 150
13C2 PFUnA	90		25 - 150
13C3 PFBS	116		25 - 150
18O2 PFHxS	107		25 - 150
13C4 PFOS	91		25 - 150
M2-4:2 FTS	153	*5+	25 - 150
M2-6:2 FTS	108		25 - 150
M2-8:2 FTS	94		25 - 150
13C2 10:2 FTS	128		25 - 150

**Lab Sample ID: MB 320-819252/1-A**

**Matrix: Tissue**

**Analysis Batch: 820782**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 819252**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Total PFOA	ND		1.0	0.20	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.10	ug/Kg		12/04/24 11:48	12/09/24 23:31	1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.27	ug/Kg		12/04/24 11:48	12/09/24 23:31	1

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# QC Sample Results

Client: University of New Mexico

Job ID: 320-117252-1

Project/Site: UNM\_Soil & Snake Skin, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: MB 320-819252/1-A**

**Matrix: Tissue**

**Analysis Batch: 820782**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 819252**

Analyte	Result	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac
		Qualifer	Limit					Prepared	Analyzed		
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
Perfluoropentanesulfonic acid (PPPeS)	ND		1.0	0.18	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
Total PFHxS	ND		1.0	0.15	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
L-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
Br-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
Total PFOS	ND		2.5	0.20	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
4:2 FTS	ND		1.0	0.27	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
6:2 FTS	ND		1.0	0.42	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
8:2 FTS	ND		1.0	0.10	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
10:2 FTS	ND		1.0	0.10	ug/Kg		12/04/24 11:48	12/09/24 23:31		1	
MB		MB									
Isotope Dilution	%Recovery	Qualifier	Limits					Prepared	Analyzed	Dil Fac	
13C4 PFBA	95		25 - 150					12/04/24 11:48	12/09/24 23:31		1
13C5 PFPeA	79		25 - 150					12/04/24 11:48	12/09/24 23:31		1
13C2 PFHxA	112		25 - 150					12/04/24 11:48	12/09/24 23:31		1
13C4 PFHpA	94		25 - 150					12/04/24 11:48	12/09/24 23:31		1
13C4 PFOA	87		25 - 150					12/04/24 11:48	12/09/24 23:31		1
13C5 PFNA	92		25 - 150					12/04/24 11:48	12/09/24 23:31		1
13C2 PFDA	96		25 - 150					12/04/24 11:48	12/09/24 23:31		1
13C2 PFUnA	89		25 - 150					12/04/24 11:48	12/09/24 23:31		1
13C3 PFBS	93		25 - 150					12/04/24 11:48	12/09/24 23:31		1
18O2 PFHxS	103		25 - 150					12/04/24 11:48	12/09/24 23:31		1
13C4 PFOS	100		25 - 150					12/04/24 11:48	12/09/24 23:31		1
M2-4:2 FTS	69		25 - 150					12/04/24 11:48	12/09/24 23:31		1
M2-6:2 FTS	101		25 - 150					12/04/24 11:48	12/09/24 23:31		1
M2-8:2 FTS	82		25 - 150					12/04/24 11:48	12/09/24 23:31		1
13C2 10:2 FTS	396	*5+	25 - 150					12/04/24 11:48	12/09/24 23:31		1

**Lab Sample ID: LCS 320-819252/2-A**

**Matrix: Tissue**

**Analysis Batch: 820782**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 819252**

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	
Perfluorobutanoic acid (PFBA)	10.0	10.0		ug/Kg		100	76 - 136	
Perfluoropentanoic acid (PFPeA)	10.0	9.69		ug/Kg		97	69 - 129	
Perfluorohexanoic acid (PFHxA)	10.0	9.60		ug/Kg		96	71 - 131	
Perfluoroheptanoic acid (PFHpA)	10.0	10.1		ug/Kg		101	71 - 131	
L-Perfluoroctanoic acid	10.0	10.4		ug/Kg		104	72 - 132	
Total PFOA	10.0	10.4		ug/Kg		104		
Perfluorononanoic acid (PFNA)	10.0	8.90		ug/Kg		89	73 - 133	
Perfluorodecanoic acid (PFDA)	10.0	9.88		ug/Kg		99	72 - 132	
Perfluoroundecanoic acid (PFUnA)	10.0	8.72		ug/Kg		87	66 - 126	
Perfluorobutanesulfonic acid (PFBS)	8.88	10.3		ug/Kg		116	69 - 129	

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-819252/2-A**

**Matrix: Tissue**

**Analysis Batch: 820782**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 819252**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoropentanesulfonic acid (PFPeS)	9.40	10.3		ug/Kg	109	66 - 126	
Total PFHxS	9.12	8.09		ug/Kg	89		
L-Perfluorohexanesulfonic acid	9.12	8.09		ug/Kg	89	62 - 122	
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.7		ug/Kg	112	76 - 136	
L-Perfluoroctanesulfonic acid	9.30	9.35		ug/Kg	101	68 - 141	
Total PFOS	9.30	9.35		ug/Kg	101		
4:2 FTS	9.38	9.41		ug/Kg	100	68 - 143	
6:2 FTS	9.52	9.13		ug/Kg	96	73 - 139	
8:2 FTS	9.60	10.7		ug/Kg	111	75 - 135	
10:2 FTS	9.66	8.51		ug/Kg	88	69 - 145	

Isotope Dilution	LCS	LCS	Limits
	%Recovery	Qualifier	
13C4 PFBA	87		25 - 150
13C5 PFPeA	82		25 - 150
13C2 PFHxA	87		25 - 150
13C4 PFHpA	91		25 - 150
13C4 PFOA	77		25 - 150
13C5 PFNA	87		25 - 150
13C2 PFDA	87		25 - 150
13C2 PFUnA	82		25 - 150
13C3 PFBS	73		25 - 150
18O2 PFHxS	98		25 - 150
13C4 PFOS	87		25 - 150
M2-4:2 FTS	87		25 - 150
M2-6:2 FTS	86		25 - 150
M2-8:2 FTS	72		25 - 150
13C2 10:2 FTS	351 *5+		25 - 150

**Lab Sample ID: LCSD 320-819252/3-A**

**Matrix: Tissue**

**Analysis Batch: 820782**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 819252**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	10.0	9.89		ug/Kg		99	76 - 136	1	30
Perfluoropentanoic acid (PFPeA)	10.0	10.1		ug/Kg		101	69 - 129	5	30
Perfluorohexanoic acid (PFHxA)	10.0	9.62		ug/Kg		96	71 - 131	0	30
Perfluoroheptanoic acid (PFHpA)	10.0	10.8		ug/Kg		108	71 - 131	7	30
L-Perfluoroctanoic acid	10.0	9.64		ug/Kg		96	72 - 132	7	30
Total PFOA	10.0	9.64		ug/Kg		96		7	
Perfluorononanoic acid (PFNA)	10.0	9.75		ug/Kg		98	73 - 133	9	30
Perfluorodecanoic acid (PFDA)	10.0	10.6		ug/Kg		106	72 - 132	7	30
Perfluoroundecanoic acid (PFUnA)	10.0	9.69		ug/Kg		97	66 - 126	11	30
Perfluorobutanesulfonic acid (PFBS)	8.88	9.07		ug/Kg		102	69 - 129	12	30
Perfluoropentanesulfonic acid (PFPeS)	9.40	10.1		ug/Kg		107	66 - 126	2	30
Total PFHxS	9.12	8.38		ug/Kg		92		4	

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# QC Sample Results

Client: University of New Mexico

Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-819252/3-A**

**Matrix: Tissue**

**Analysis Batch: 820782**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 819252**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
L-Perfluorohexanesulfonic acid	9.12	8.38		ug/Kg		92	62 - 122	4	30
Perfluoroheptanesulfonic acid (PFHpS)	9.54	11.0		ug/Kg		115	76 - 136	3	30
L-Perfluoroctanesulfonic acid	9.30	9.30		ug/Kg		100	68 - 141	1	30
Total PFOS	9.30	9.30		ug/Kg		100		1	
4:2 FTS	9.38	9.35		ug/Kg		100	68 - 143	1	30
6:2 FTS	9.52	9.42		ug/Kg		99	73 - 139	3	30
8:2 FTS	9.60	10.2		ug/Kg		106	75 - 135	5	30
10:2 FTS	9.66	8.71		ug/Kg		90	69 - 145	2	30

<i>Isotope Dilution</i>	<i>LCSD</i>	<i>LCSD</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
13C4 PFBA	95		25 - 150
13C5 PFPeA	82		25 - 150
13C2 PFHxA	100		25 - 150
13C4 PFHpA	86		25 - 150
13C4 PFOA	85		25 - 150
13C5 PFNA	88		25 - 150
13C2 PFDA	89		25 - 150
13C2 PFUnA	83		25 - 150
13C3 PFBS	88		25 - 150
18O2 PFHxS	105		25 - 150
13C4 PFOS	89		25 - 150
M2-4:2 FTS	94		25 - 150
M2-6:2 FTS	91		25 - 150
M2-8:2 FTS	83		25 - 150
13C2 10:2 FTS	350 *5+		25 - 150

# QC Association Summary

Client: University of New Mexico  
 Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## LCMS

### Prep Batch: 817586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117252-3	NE-2-100- m	Total/NA	Solid	SHAKE	5
320-117252-4	NE-4-100- m	Total/NA	Solid	SHAKE	6
320-117252-5	NE-2-200- m	Total/NA	Solid	SHAKE	7
320-117252-6	NE-4-200- m	Total/NA	Solid	SHAKE	8
MB 320-817586/1-A	Method Blank	Total/NA	Solid	SHAKE	9
LCS 320-817586/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	10
320-117252-6 MS	NE-4-200- m	Total/NA	Solid	SHAKE	11
320-117252-6 MSD	NE-4-200- m	Total/NA	Solid	SHAKE	12

### Analysis Batch: 817947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117252-3	NE-2-100- m	Total/NA	Solid	B/L/T PFAS	817586
320-117252-4	NE-4-100- m	Total/NA	Solid	B/L/T PFAS	817586
320-117252-5	NE-2-200- m	Total/NA	Solid	B/L/T PFAS	817586
320-117252-6	NE-4-200- m	Total/NA	Solid	B/L/T PFAS	817586
MB 320-817586/1-A	Method Blank	Total/NA	Solid	B/L/T PFAS	817586
LCS 320-817586/2-A	Lab Control Sample	Total/NA	Solid	B/L/T PFAS	817586
320-117252-6 MS	NE-4-200- m	Total/NA	Solid	B/L/T PFAS	817586
320-117252-6 MSD	NE-4-200- m	Total/NA	Solid	B/L/T PFAS	817586

### Pre Prep Batch: 819250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117252-7	C atrox skin	Total/NA	Tissue	In-House	13
320-117252-7 - RA	C atrox skin	Total/NA	Tissue	In-House	14
320-117252-7 - DL	C atrox skin	Total/NA	Tissue	In-House	15

### Prep Batch: 819252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117252-7	C atrox skin	Total/NA	Tissue	SHAKE	819250
320-117252-7 - RA	C atrox skin	Total/NA	Tissue	SHAKE	819250
320-117252-7 - DL	C atrox skin	Total/NA	Tissue	SHAKE	819250
MB 320-819252/1-A	Method Blank	Total/NA	Tissue	SHAKE	819250
LCS 320-819252/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	819250
LCSD 320-819252/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	819250

### Analysis Batch: 820782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117252-7	C atrox skin	Total/NA	Tissue	B/L/T PFAS	819252
MB 320-819252/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	819252
LCS 320-819252/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	819252
LCSD 320-819252/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	819252

### Analysis Batch: 821097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117252-7 - RA	C atrox skin	Total/NA	Tissue	B/L/T PFAS	819252

### Analysis Batch: 822232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117252-7 - DL	C atrox skin	Total/NA	Tissue	B/L/T PFAS	819252

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# QC Association Summary

Client: University of New Mexico

Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## General Chemistry

### Analysis Batch: 819026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117252-3	NE-2-100- m	Total/NA	Solid	D2216-92	
320-117252-4	NE-4-100- m	Total/NA	Solid	D2216-92	
320-117252-5	NE-2-200- m	Total/NA	Solid	D2216-92	
320-117252-6	NE-4-200- m	Total/NA	Solid	D2216-92	

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

**Client Sample ID: NE-2-100- m**

**Lab Sample ID: 320-117252-3**

**Matrix: Solid**

Date Collected: 11/19/24 00:00

Date Received: 11/21/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.13 g	10.0 mL	817586	11/25/24 04:16	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	817947	11/26/24 15:17	S1C	EET SAC
Total/NA	Analysis	D2216-92		1			819026	12/03/24 14:12	JCB	EET SAC

**Client Sample ID: NE-4-100- m**

**Lab Sample ID: 320-117252-4**

**Matrix: Solid**

Date Collected: 11/19/24 00:00

Date Received: 11/21/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.41 g	10.0 mL	817586	11/25/24 04:16	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	817947	11/26/24 15:36	S1C	EET SAC
Total/NA	Analysis	D2216-92		1			819026	12/03/24 14:12	JCB	EET SAC

**Client Sample ID: NE-2-200- m**

**Lab Sample ID: 320-117252-5**

**Matrix: Solid**

Date Collected: 11/19/24 00:00

Date Received: 11/21/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.03 g	10.0 mL	817586	11/25/24 04:16	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	817947	11/26/24 15:55	S1C	EET SAC
Total/NA	Analysis	D2216-92		1			819026	12/03/24 14:12	JCB	EET SAC

**Client Sample ID: NE-4-200- m**

**Lab Sample ID: 320-117252-6**

**Matrix: Solid**

Date Collected: 11/19/24 00:00

Date Received: 11/21/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			5.28 g	10.0 mL	817586	11/25/24 04:16	R1T	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	817947	11/26/24 16:15	S1C	EET SAC
Total/NA	Analysis	D2216-92		1			819026	12/03/24 14:12	JCB	EET SAC

**Client Sample ID: C atrox skin**

**Lab Sample ID: 320-117252-7**

**Matrix: Tissue**

Date Collected: 11/19/24 00:00

Date Received: 11/21/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	819250	12/04/24 11:42	ATB	EET SAC
Total/NA	Prep	SHAKE			1.17 g	10.0 mL	819252	12/04/24 11:48	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820782	12/10/24 01:47	P1P	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	819250	12/04/24 11:42	ATB	EET SAC
Total/NA	Prep	SHAKE	RA		1.17 g	10.0 mL	819252	12/04/24 11:48	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	821097	12/11/24 03:40	S1C	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	819250	12/04/24 11:42	ATB	EET SAC
Total/NA	Prep	SHAKE	DL		1.17 g	10.0 mL	819252	12/04/24 11:48	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	822232	12/16/24 14:25	JTD	EET SAC

Eurofins Sacramento

## Lab Chronicle

Client: University of New Mexico

Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

### Laboratory References:

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

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# Accreditation/Certification Summary

Client: University of New Mexico

Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

## Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468	01-20-27
Arizona	State	AZ0708	08-11-25
Arkansas DEQ	State	88-0691	05-18-25
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-25
Florida	NELAP	E87570	06-30-25
Georgia	State	4040	01-29-25
Hawaii	State	Eurofins Sacramento	01-29-25
Illinois	NELAP	200060	03-31-25
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-25
Louisiana (All)	NELAP	01944	06-30-25
Maine	State	CA00004	04-14-26
Michigan	State	9947	01-29-25
Minnesota	NELAP	2749448	12-31-25
Nevada	State	CA00044	07-31-25
New Hampshire	NELAP	2997	04-19-25
New Jersey	NELAP	CA005	06-30-25
New York	NELAP	11666	04-01-25
Ohio	State	41252	01-29-25
Oregon	NELAP	4040	01-29-25
Texas	NELAP	T104704399-23-17	05-31-25
US Fish & Wildlife	US Federal Programs	A22139	04-30-25
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-25
Virginia	NELAP	460278	03-14-25
Washington	State	C581	05-05-25
West Virginia (DW)	State	9930C	01-31-25
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

## Method Summary

Client: University of New Mexico  
Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

Method	Method Description	Protocol	Laboratory
B/L/T PFAS	Branched, Linear and Total PFAS	EPA	EET SAC
D2216-92	Percent Moisture	ASTM	EET SAC
In-House	Tissue Preparation/Homogenization	NOAA	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

NOAA = National Marine Fisheries Service, National Oceanic And Atmospheric Administration, Seattle, WA, November 1988

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

### Laboratory References:

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

## Sample Summary

Client: University of New Mexico

Project/Site: UNM\_Soil & Snake Skin, Holloman

Job ID: 320-117252-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-117252-3	NE-2-100- m	Solid	11/19/24 00:00	11/21/24 09:25
320-117252-4	NE-4-100- m	Solid	11/19/24 00:00	11/21/24 09:25
320-117252-5	NE-2-200- m	Solid	11/19/24 00:00	11/21/24 09:25
320-117252-6	NE-4-200- m	Solid	11/19/24 00:00	11/21/24 09:25
320-117252-7	C atrox skin	Tissue	11/19/24 00:00	11/21/24 09:25



320-117252 Chain of Custody

Eurofins Env. Testing Northern California

880 Riverside Parkway  
West Sacramento, CA 95605  
Phone: 916.373.5600

## Chain of Custody Record



Environment Testing  
America

Client Contact		Report To Jean-Luc Cartron and Jon Dunnum email: jlec@unm.edu, jdunnum@unm.edu		Site Contact:		Date: 11/20/2024		COC No		
Jean-Luc Cartron jcartron@geo-logic.com jlec@unm.edu				Lab Contact: Linda Laver		Carrier: FedEx		1 of 1 COCs		
		Analysis Turnaround Time						Job No.		
		Business Days (BD)								
		TAT if different from Above								
		<input type="checkbox"/>	2 weeks							
		<input type="checkbox"/>	1 week							
		<input type="checkbox"/>	2 days							
		<input type="checkbox"/>	1 day							
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Enter requested analyses in these fields		
NE-2-0 m	19-Nov-24		Soil		1		Soil Organic Content (soil carbon content)			ETERMINATION (NOT PFAS SCREENING) Surface soil col
NE-4-0 m	19-Nov-24		Soil		1		Soil Organic Content (soil carbon content)			ETERMINATION (NOT PFAS SCREENING) Surface soil col
NE-2-100 m	19-Nov-24		Soil		1		PFAS targeted analysis			ETED ANALYSIS Surface soil collected along NE-2 transect 1
NE-4-100 m	19-Nov-24		Soil		1		PFAS targeted analysis			ETED ANALYSIS Surface soil collected along NE-4 transect 1
NE-2-200 m	19-Nov-24		Soil				PFAS targeted analysis			ETED ANALYSIS Surface soil collected along NE-2 transect 1
NE-4-200 m	19-Nov-24		Soil		1		PFAS targeted analysis			ETED ANALYSIS Surface soil collected along NE-4 transect 2
C. atrox skin	19-Nov-24		Snake skin		1		PFAS targeted analysis			ALYSIS Snake skin collected along shoreline (please dry tissue a
Preservation Used. 1=Ice, 2=HCl, 3=H <sub>2</sub> SO <sub>4</sub> , 4=HNO <sub>3</sub> , 5=NaOH, 6=Other 1=ice										
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months				
Special Instructions/QC Requirements & Comments: Note that 2 of the soil samples are for quantifying soil organic content, the other 5 samples are for PFAS targeted analyses. The snake skin was washed to remove dirt debris. To the extent possible, please dry the skin prior to analysis. Thank you										
Relinquished by: Jean-Luc Cartron		Company: Daniel B. Stephens & Associates		Date/Time: 11/20		Received by: <i>S</i>		Company: <i>Ergo</i>		Date/Time: 11/20/2024 0925
Relinquished by:		Company:		Date/Time:		Received by: <i>S</i>		Company:		Date/Time:
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:

23°



## Environment Testing

Sacramento Sample  
Receiving Notes (SSRN)Loc: 320  
**117252**Tracking # 7701 0222 0190

Job \_\_\_\_\_

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
GSL / OnTrac / Goldstreak / USPS / Other \_\_\_\_\_Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations  
File in the job folder with the COC

Therm ID <u>604</u> Corr Factor (+/-) <u>A</u> °C Ice <input checked="" type="checkbox"/> Wet <input checked="" type="checkbox"/> Gel <input type="checkbox"/> Other <input type="checkbox"/>	Notes: _____ <u>(D) - (D) NO Dots</u> _____ _____ _____ _____
Cooler Custody Seal _____	
Cooler ID: _____	
Temp Observed <u>23</u> °C Corrected <u>2.3</u> °C From Temp Blank <input checked="" type="checkbox"/> Sandwich <input type="checkbox"/> Sidewall <input type="checkbox"/>	
<b>Opening/Processing The Shipment</b> Cooler compromised/tampered with? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Cooler Temperature is acceptable? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Frozen samples show signs of thaw? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
Initials <u>SJ</u> Date <u>11/21/24</u>	
<b>Unpacking/Labeling The Samples</b> Containers are not broken or leaking? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Samples compromised/tampered with? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> COC is complete w/o discrepancies <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sample custody seal? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Sample containers have legible labels? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sample date/times are provided? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Appropriate containers are used? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sample bottles are completely filled? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sample preservatives verified? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Is the Field Sampler's name on COC? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Samples w/o discrepancies? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Zero headspace?* <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Alkalinity has no headspace? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Perchlorate has headspace? (Methods 314, 331, 6850) <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Multiphasic samples are not present? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Trizma Lot #(s) _____ _____ _____ _____ Ammonium _____ Acetate Lot #(s) _____ _____ _____
	<b>Login Completion</b> Receipt Temperature on COC? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> NCM Filed? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Samples received within hold time? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Log Release checked in TALS? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<small>*Containers requiring zero headspace have no headspace, or bubble &lt; 6 mm (1/4")</small>	
Initials <u>SJ</u> Date <u>11/21/24</u>	Initials <u>SJ</u> Date <u>11/21/24</u>



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Jean-Luc Cartron  
University of New Mexico  
Museum of Southwestern Biology  
Division of Mammals  
CERIA Bldg 83, Room 204  
Albuquerque, New Mexico 87131

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## JOB DESCRIPTION

Holloman Lake PFAS Research

## JOB NUMBER

320-115443-1

# Eurofins Sacramento

## Job Notes

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## Authorization



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Authorized for release by  
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(916)374-4362

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# Definitions/Glossary

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Qualifiers

LCMS	
Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
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.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%	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

# Case Narrative

Client: University of New Mexico  
Project: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Job ID: 320-115443-1**

**Eurofins Sacramento**

## Job Narrative 320-115443-1

### Receipt

The samples were received on 9/17/2024 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -34.2° C.

### Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and was not signed at the time samples were relinquished to the lab and does not list the requested analyses. Based on communications with the client, the samples were logged in for PFAS by 537 Mod.

The COC and container label for each sample did not include a collection time. Samples were logged with a default time as 00:00.

### LCMS

Method B/L/T PFAS: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. NK284441 liver (320-115443-1), NK284445 liver (320-115443-2), NK284446 liver (320-115443-3), NK284447 liver (320-115443-4), NK284448 liver (320-115443-5), NK284449 liver (320-115443-6), NK284450 liver (320-115443-7), NK284451 liver (320-115443-8), NK284458 liver (320-115443-9), African Rue East Intake (320-115443-11), Saltcedar East Intake (320-115443-12), Saltcedar NE 4-1 (320-115443-13), pickleweed NE 4-1 (320-115443-14), MSBHerp109299 muscle (320-115443-15), MSBHerp109299 liver (320-115443-16), NK319555 muscle (320-115443-17), NK319556 muscle (320-115443-18), NK319556 liver (320-115443-19), MSB89187 femur (320-115443-20), MSB89196 femur (320-115443-23), MSB87701 femur (320-115443-24), MSB87702 femur (320-115443-25), MSB89195 femur (320-115443-26), (MB 320-802924/1-A), (LCS 320-802924/2-A), (LCSD 320-802924/3-A), (MB 320-803280/1-A), (LCS 320-803280/2-A) and (LCSD 320-803280/3-A)

Method B/L/T PFAS: The "I" qualifier means the transition mass ratio for the indicated analyte was outside the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgment was used to positively identify the analyte. NK284447 liver (320-115443-4).

Method B/L/T PFAS: Results for the following samples were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits. NK284441 liver (320-115443-1), NK284445 liver (320-115443-2), NK284446 liver (320-115443-3), NK284448 liver (320-115443-5), NK284449 liver (320-115443-6), NK284450 liver (320-115443-7), NK284451 liver (320-115443-8), NK284463 eggshell + contents (320-115443-10), Saltcedar East Intake (320-115443-12), Saltcedar NE 4-1 (320-115443-13), pickleweed NE 4-1 (320-115443-14), MSBHerp109299 muscle (320-115443-15), MSBHerp109299 liver (320-115443-16) and NK319555 muscle (320-115443-17)

Method B/L/T PFAS: The concentration of L-Perfluorooctanesulfonic acid associated with the following sample exceeded the instrument calibration range. The analyte has been qualified (E); however, the peaks did not saturate the instrument detector. The concentration was over calibration range at the laboratory's maximum possible dilution; therefore, no further corrective action was performed and the data have been reported. NK284463 eggshell + contents (320-115443-10)

Method B/L/T PFAS: The method blank for preparation batch 320-802924 had detections of some analytes above the method detection limit (J), but less than the reporting limit (RL); therefore, re-extraction of the associated samples was not performed.

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

### Organic Prep

Method SHAKE: Several samples were received with less than 1 g of material and were processed at reduced mass. The reporting limits (RLs) have been elevated proportionately.

Method SHAKE: The following sample extract contained particulates which clogged the solid phase clean-up column: NK284463 eggshell + contents (320-115443-10).

Method SHAKE: The following samples were discolored following extraction. NK284441 liver (320-115443-1), NK284445 liver (320-115443-2), NK284446 liver (320-115443-3), NK284448 liver (320-115443-5), NK284458 liver (320-115443-9), NK284463 eggshell + contents (320-115443-10), African Rue East Intake (320-115443-11), Saltcedar East Intake (320-115443-12) and Saltcedar NE 4-1 (320-115443-13), pickleweed NE 4-1 (320-115443-14), MSBHerp109299 liver (320-115443-16), NK319555 muscle (320-115443-17), NK319556 liver (320-115443-19), MSB87701 femur (320-115443-24) and MSB87702 femur (320-115443-25).

## Case Narrative

Client: University of New Mexico  
Project: Holloman Lake PFAS Research

Job ID: 320-115443-1

### Job ID: 320-115443-1 (Continued)

### Eurofins Sacramento

Method SHAKE: The following samples were received after the laboratory's default holding time from sample collection to sample preparation had expired: MSB89187 femur (320-115443-20), MSB92667 femur (320-115443-21), MSB61848 femur (320-115443-22), MSB89196 femur (320-115443-23), MSB87701 femur (320-115443-24), MSB87702 femur (320-115443-25), MSB89195 femur (320-115443-26) and MSB61849 femur (320-115443-27)

Method SHAKE: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batches 320-802924 and 320-803280.

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

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# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Client Sample ID: NK284441 liver

## Lab Sample ID: 320-115443-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	9.1	J	13	2.5	ug/Kg	5		B/L/T PFAS	Total/NA
Total PFOA	9.1	J	13	2.5	ug/Kg	5		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	53		13	2.2	ug/Kg	5		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	19		13	1.3	ug/Kg	5		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	6.8	J	13	3.4	ug/Kg	5		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	11	J	13	1.9	ug/Kg	5		B/L/T PFAS	Total/NA
Total PFHxS	300		13	1.9	ug/Kg	5		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	290		13	1.9	ug/Kg	5		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	110		13	2.3	ug/Kg	5		B/L/T PFAS	Total/NA
8:2 FTS	80		13	1.3	ug/Kg	5		B/L/T PFAS	Total/NA
10:2 FTS	14		13	1.3	ug/Kg	5		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	9700	B	310	25	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	6800		310	25	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	17000	B	310	25	ug/Kg	50		B/L/T PFAS	Total/NA

## Client Sample ID: NK284445 liver

## Lab Sample ID: 320-115443-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	2.8	J B	5.9	1.6	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.7	J	5.9	0.68	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	56		5.9	1.2	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	5.1	J	5.9	1.2	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	61		5.9	1.2	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	78		5.9	1.0	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	24		5.9	0.61	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	9.1		5.9	1.6	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPPeS)	4.3	J	5.9	1.1	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	34		5.9	0.87	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	520		5.9	0.87	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	490		5.9	0.87	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	120		5.9	1.1	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	75		5.9	0.59	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	12		5.9	0.59	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	9300	B	740	60	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	2600		740	60	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	12000	B	740	60	ug/Kg	50		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PPPeA) - RA	1.3	J B	5.9	1.0	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK284446 liver

## Lab Sample ID: 320-115443-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	3.0	J	22	2.6	ug/Kg	10		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	50		22	4.5	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOA	50		22	4.5	ug/Kg	10		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	48		22	3.9	ug/Kg	10		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	16	J	22	2.3	ug/Kg	10		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	7.8	J	22	6.0	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	23		22	3.3	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFHxS	530		22	3.3	ug/Kg	10		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	500		22	3.3	ug/Kg	10		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Client Sample ID: NK284446 liver (Continued)

## Lab Sample ID: 320-115443-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanesulfonic acid (PFHpS)	84		22	4.1	ug/Kg	10		B/L/T PFAS	Total/NA
8:2 FTS	36		22	2.2	ug/Kg	10		B/L/T PFAS	Total/NA
10:2 FTS	6.3	J	22	2.2	ug/Kg	10		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	6000	B	280	23	ug/Kg	50		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	4300		280	23	ug/Kg	50		B/L/T PFAS	Total/NA
Total PFOS - DL	10000	B	280	23	ug/Kg	50		B/L/T PFAS	Total/NA

## Client Sample ID: NK284447 liver

## Lab Sample ID: 320-115443-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	1.2	J	5.9	1.2	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.2	J	5.9	1.2	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	1.6	J	5.9	0.87	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	6.8		5.9	0.87	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	5.2	J	5.9	0.87	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - RA	78	I B	15	1.2	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - RA	19		15	1.2	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS - RA	96	B	15	1.2	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK284448 liver

## Lab Sample ID: 320-115443-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	1.4	J	1.8	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	13		1.8	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.88	J	1.8	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	14		1.8	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	8.7		1.8	0.31	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.82	J	1.8	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.94	J B	1.8	0.30	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	5.4		1.8	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	37		1.8	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	200		1.8	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	160		1.8	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	9.4		1.8	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	3.9		1.8	0.76	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	1.8		1.8	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	660	B	89	7.3	ug/Kg	20		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	2600		89	7.3	ug/Kg	20		B/L/T PFAS	Total/NA
Total PFOS - DL	3200	B	89	7.3	ug/Kg	20		B/L/T PFAS	Total/NA

## Client Sample ID: NK284449 liver

## Lab Sample ID: 320-115443-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	9.1	J	13	2.5	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	9.1	J	13	2.5	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	31		13	2.2	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	8.0	J	13	1.3	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	8.1	J	13	3.4	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	23		13	1.9	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	370		13	1.9	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico

Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Client Sample ID: NK284449 liver (Continued)

## Lab Sample ID: 320-115443-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorohexanesulfonic acid	340		13	1.9	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	33		13	2.3	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	190		13	1.3	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	15		13	1.3	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	2600	B	310	25	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	1100		310	25	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	3700	B	310	25	ug/Kg	10		B/L/T PFAS	Total/NA

## Client Sample ID: NK284450 liver

## Lab Sample ID: 320-115443-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	2.9	J	6.3	1.3	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	2.9	J	6.3	1.3	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	11		6.3	1.1	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	3.9	J	6.3	0.64	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.9	J	6.3	1.7	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	5.1	J	6.3	0.93	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	92		6.3	0.93	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	87		6.3	0.93	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	13		6.3	1.2	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	120		6.3	0.63	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	8.0		6.3	0.63	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	1200	B	160	13	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	860		160	13	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	2000	B	160	13	ug/Kg	10		B/L/T PFAS	Total/NA

## Client Sample ID: NK284451 liver

## Lab Sample ID: 320-115443-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	5.1	J	17	3.4	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	5.1	J	17	3.4	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	27		17	2.9	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	7.5	J	17	1.7	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	4.6	J	17	4.5	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	12	J	17	2.5	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	170		17	2.5	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	160		17	2.5	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	25		17	3.1	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	84		17	1.7	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	13	J	17	1.7	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	3200	B	420	34	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	820		420	34	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	4000	B	420	34	ug/Kg	10		B/L/T PFAS	Total/NA

## Client Sample ID: NK284458 liver

## Lab Sample ID: 320-115443-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	0.42	J	0.79	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.48	J	0.79	0.081	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.38	J	0.79	0.21	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico

Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Client Sample ID: NK284458 liver (Continued)

## Lab Sample ID: 320-115443-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanesulfonic acid	3.0	B	2.0	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	1.2	J	2.0	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	4.2	B	2.0	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.14	J	0.79	0.080	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK284463 eggshell + contents

## Lab Sample ID: 320-115443-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.7	B	0.98	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	13	B	0.98	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	8.0		0.98	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	75		0.98	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	12		0.98	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.68	J B	0.98	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	4.1		0.98	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	9.9		0.98	0.42	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	1.9		0.98	0.099	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid - DL	110		98	20	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	110		98	20	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	340		98	17	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	37	J	98	15	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	1300		98	15	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	1300		98	15	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	270		98	18	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	26000	E B	250	20	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	8400		250	20	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	35000	B	250	20	ug/Kg	100		B/L/T PFAS	Total/NA
8:2 FTS - DL	180		98	9.8	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA) - RA	4.2	B	0.98	0.17	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: African Rue East Intake

## Lab Sample ID: 320-115443-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	21	B	1.1	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	6.1	B	1.1	0.31	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.1		1.1	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	1.9		1.1	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.9		1.1	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	1.7		1.1	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.6	B	1.1	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.8		1.1	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	4.6		1.1	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	38		1.1	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	34		1.1	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.6		1.1	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	63	B	2.8	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	29		2.8	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	92	B	2.8	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	1.6		1.1	0.48	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Client Sample ID: African Rue East Intake (Continued)

## Lab Sample ID: 320-115443-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA) - RA	17	B	1.1	0.20	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: Saltcedar East Intake

## Lab Sample ID: 320-115443-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.43	J B	1.1	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	7.9	B	1.1	0.30	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.9		1.1	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	26		1.1	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	1.0	J	1.1	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	27		1.1	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	19		1.1	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.16	J	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.0	B	1.1	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	8.8		1.1	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	48		1.1	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	26		1.1	0.47	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.11	J	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	25		22	3.3	ug/Kg	20		B/L/T PFAS	Total/NA
Total PFHxS - DL	420		22	3.3	ug/Kg	20		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	400		22	3.3	ug/Kg	20		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	630	B	55	4.5	ug/Kg	20		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	600		55	4.5	ug/Kg	20		B/L/T PFAS	Total/NA
Total PFOS - DL	1200	B	55	4.5	ug/Kg	20		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA) - RA	1.5	B	1.1	0.19	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: Saltcedar NE 4-1

## Lab Sample ID: 320-115443-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.5	J B	1.7	0.40	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	7.1	B	1.7	0.30	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	43	B	1.7	0.46	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	63		1.7	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	3.8		1.7	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.9	B	1.7	0.29	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	33		1.7	0.31	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	28		1.7	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid - DL	890		17	3.4	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid - DL	41		17	3.4	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOA - DL	930		17	3.4	ug/Kg	10		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	230		17	3.0	ug/Kg	10		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	1400		17	3.1	ug/Kg	10		B/L/T PFAS	Total/NA
6:2 FTS - DL	1300		17	7.2	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL2	210		170	25	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL2	6800		170	25	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL2	6500		170	25	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL2	15000	B	420	34	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL2	15000		420	34	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico

Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Client Sample ID: Saltcedar NE 4-1 (Continued)

## Lab Sample ID: 320-115443-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total PFOS - DL2	30000	B	420	34	ug/Kg	100		B/L/T PFAS	Total/NA

## Client Sample ID: pickleweed NE 4-1

## Lab Sample ID: 320-115443-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.3	B	0.99	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	8.2	B	0.99	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.7		0.99	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	5.0		0.99	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	0.37	J	0.99	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	5.4		0.99	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	4.9		0.99	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.38	J	0.99	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.3	B	0.99	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	4.1		0.99	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	12		0.99	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	54		0.99	0.42	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	1.5		0.99	0.099	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	14	J	20	2.9	ug/Kg	20		B/L/T PFAS	Total/NA
Total PFHxS - DL	160		20	2.9	ug/Kg	20		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	140		20	2.9	ug/Kg	20		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	730	B	50	4.0	ug/Kg	20		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	290		50	4.0	ug/Kg	20		B/L/T PFAS	Total/NA
Total PFOS - DL	1000	B	50	4.0	ug/Kg	20		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA) - RA	3.6	B	0.99	0.17	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: MSBHerp109299 muscle

## Lab Sample ID: 320-115443-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanoic acid	4.8		1.1	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	4.8		1.1	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	7.1		1.1	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.0	J	1.1	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.40	J	1.1	0.31	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.52	J	1.1	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	15		1.1	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	2.4		1.1	0.48	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	13		1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	23		11	1.7	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFHxS - DL	200		11	1.7	ug/Kg	10		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	180		11	1.7	ug/Kg	10		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	700	B	28	2.3	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	240		28	2.3	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	940	B	28	2.3	ug/Kg	10		B/L/T PFAS	Total/NA

## Client Sample ID: MSBHerp109299 liver

## Lab Sample ID: 320-115443-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanoic acid	32		5.6	1.1	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico

Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Client Sample ID: MSBHerp109299 liver (Continued)

## Lab Sample ID: 320-115443-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Br-Perfluorooctanoic acid	1.5	J	5.6	1.1	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	34		5.6	1.1	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	58		5.6	0.97	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	4.6	J	5.6	0.57	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.1	J	5.6	1.0	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	160		5.6	1.0	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	5.8		5.6	0.56	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.63	J	5.6	0.56	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	160		56	8.2	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFHxS - DL	1500		56	8.2	ug/Kg	10		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	1400		56	8.2	ug/Kg	10		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	4400		140	11	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	2300		140	11	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	6800		140	11	ug/Kg	10		B/L/T PFAS	Total/NA

## Client Sample ID: NK319555 muscle

## Lab Sample ID: 320-115443-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.3		1.1	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	0.31	J	1.1	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.40	J	1.1	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	15		1.1	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanoic acid	0.46	J	1.1	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	15		1.1	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	9.5		1.1	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.0	J	1.1	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.6		1.1	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	22		1.1	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	1.3		1.1	0.48	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.31	J	1.1	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	350		11	1.7	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFHxS - DL	360		11	1.7	ug/Kg	10		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	8.5	J	11	1.7	ug/Kg	10		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	420		28	2.3	ug/Kg	10		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	220		28	2.3	ug/Kg	10		B/L/T PFAS	Total/NA
Total PFOS - DL	640		28	2.3	ug/Kg	10		B/L/T PFAS	Total/NA

## Client Sample ID: NK319556 muscle

## Lab Sample ID: 320-115443-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.78		0.76	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	0.15	J	0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.15	J	0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.16	J	0.76	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.16	J	0.76	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	0.31	J	1.9	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	0.31	J	1.9	0.15	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## **Client Sample ID: NK319556 liver**

## **Lab Sample ID: 320-115443-19**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.1		0.71	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.12	J	0.71	0.083	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	0.87		0.71	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.14	J	0.71	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.0		0.71	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	0.66	J	0.71	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.27	J	0.71	0.074	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.63	J	0.71	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.63	J	0.71	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	2.1		1.8	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	0.94	J	1.8	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	3.0		1.8	0.15	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: MSB89187 femur**

## **Lab Sample ID: 320-115443-20**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
10:2 FTS	0.55	J H H3	4.8	0.48	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: MSB92667 femur**

## **Lab Sample ID: 320-115443-21**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanesulfonic acid	310	H H3	83	6.8	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	61	J H H3	83	6.8	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	370	H H3	83	6.8	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	3.7	J H H3	33	3.4	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: MSB61848 femur**

## **Lab Sample ID: 320-115443-22**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
10:2 FTS	2.7	J H H3	25	2.5	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: MSB89196 femur**

## **Lab Sample ID: 320-115443-23**

No Detections.

## **Client Sample ID: MSB87701 femur**

## **Lab Sample ID: 320-115443-24**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.45	J H H3	2.1	0.36	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: MSB87702 femur**

## **Lab Sample ID: 320-115443-25**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.56	J H H3	2.4	0.42	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	0.77	J H H3	6.0	0.48	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	0.77	J H H3	6.0	0.48	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.25	J H H3	2.4	0.24	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: MSB89195 femur**

## **Lab Sample ID: 320-115443-26**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
10:2 FTS	1.2	J H H3	11	1.1	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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## Detection Summary

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: MSB61849 femur**

**Lab Sample ID: 320-115443-27**

No Detections.

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This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284441 liver**  
**Date Collected: 07/11/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-1**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		13	3.0	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
Perfluoropentanoic acid (PFPeA)	ND		13	2.2	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
Perfluorohexanoic acid (PFHxA)	ND		13	3.4	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
Perfluoroheptanoic acid (PFHpA)	ND		13	1.5	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
<b>L-Perfluoroctanoic acid</b>	<b>9.1 J</b>		13	2.5	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
Br-Perfluoroctanoic acid	ND		13	2.5	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
<b>Total PFOA</b>	<b>9.1 J</b>		13	2.5	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
<b>Perfluorononanoic acid (PFNA)</b>	<b>53</b>		13	2.2	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
<b>Perfluorodecanoic acid (PFDA)</b>	<b>19</b>		13	1.3	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>6.8 J</b>		13	3.4	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
Perfluorobutanesulfonic acid (PFBS)	ND		13	2.1	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
Perfluoropentanesulfonic acid (PFPeS)	ND		13	2.3	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
<b>Br-Perfluorohexanesulfonic acid</b>	<b>11 J</b>		13	1.9	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
<b>Total PFHxS</b>	<b>300</b>		13	1.9	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
<b>L-Perfluorohexanesulfonic acid</b>	<b>290</b>		13	1.9	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>110</b>		13	2.3	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
4:2 FTS	ND		13	3.3	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
6:2 FTS	ND		13	5.3	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
<b>8:2 FTS</b>	<b>80</b>		13	1.3	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
<b>10:2 FTS</b>	<b>14</b>		13	1.3	ug/Kg	09/28/24 06:38	10/14/24 16:23		5
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	98		25 - 150				09/28/24 06:38	10/14/24 16:23	5
13C5 PFPeA	105		25 - 150				09/28/24 06:38	10/14/24 16:23	5
13C2 PFHxA	83		25 - 150				09/28/24 06:38	10/14/24 16:23	5
13C4 PFHpA	107		25 - 150				09/28/24 06:38	10/14/24 16:23	5
13C4 PFOA	101		25 - 150				09/28/24 06:38	10/14/24 16:23	5
13C5 PFNA	107		25 - 150				09/28/24 06:38	10/14/24 16:23	5
13C2 PFDA	108		25 - 150				09/28/24 06:38	10/14/24 16:23	5
13C2 PFUnA	113		25 - 150				09/28/24 06:38	10/14/24 16:23	5
13C3 PFBS	111		25 - 150				09/28/24 06:38	10/14/24 16:23	5
18O2 PFHxS	109		25 - 150				09/28/24 06:38	10/14/24 16:23	5
13C4 PFOS	92		25 - 150				09/28/24 06:38	10/14/24 16:23	5
M2-4:2 FTS	124		25 - 150				09/28/24 06:38	10/14/24 16:23	5
M2-6:2 FTS	177 *5+		25 - 150				09/28/24 06:38	10/14/24 16:23	5
M2-8:2 FTS	140		25 - 150				09/28/24 06:38	10/14/24 16:23	5
13C2 10:2 FTS	397 *5+		25 - 150				09/28/24 06:38	10/14/24 16:23	5

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluoroctanesulfonic acid</b>	<b>9700 B</b>		310	25	ug/Kg	09/28/24 06:38	10/10/24 21:12		50
<b>Br-Perfluoroctanesulfonic acid</b>	<b>6800</b>		310	25	ug/Kg	09/28/24 06:38	10/10/24 21:12		50
<b>Total PFOS</b>	<b>17000 B</b>		310	25	ug/Kg	09/28/24 06:38	10/10/24 21:12		50
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	89		25 - 150				09/28/24 06:38	10/10/24 21:12	50

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284445 liver**

**Lab Sample ID: 320-115443-2**

**Matrix: Tissue**

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.9	1.4	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.8</b>	<b>J B</b>	5.9	1.6	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>2.7</b>	<b>J</b>	5.9	0.68	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
L-Perfluorooctanoic acid	<b>56</b>		5.9	1.2	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
Br-Perfluorooctanoic acid	<b>5.1</b>	<b>J</b>	5.9	1.2	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
<b>Total PFOA</b>	<b>61</b>		5.9	1.2	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>78</b>		5.9	1.0	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>24</b>		5.9	0.61	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>9.1</b>		5.9	1.6	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
Perfluorobutanesulfonic acid (PFBS)	ND		5.9	1.0	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>4.3</b>	<b>J</b>	5.9	1.1	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
Br-Perfluorohexanesulfonic acid	<b>34</b>		5.9	0.87	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
<b>Total PFHxS</b>	<b>520</b>		5.9	0.87	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
L-Perfluorohexanesulfonic acid	<b>490</b>		5.9	0.87	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
Perfluoroheptanesulfonic acid (PFHps)	<b>120</b>		5.9	1.1	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
4:2 FTS	ND		5.9	1.6	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
6:2 FTS	ND		5.9	2.5	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
<b>8:2 FTS</b>	<b>75</b>		5.9	0.59	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
<b>10:2 FTS</b>	<b>12</b>		5.9	0.59	ug/Kg		09/28/24 06:38	10/10/24 22:10	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	101		25 - 150				09/28/24 06:38	10/10/24 22:10	1
13C2 PFHxA	99		25 - 150				09/28/24 06:38	10/10/24 22:10	1
13C4 PFHpA	100		25 - 150				09/28/24 06:38	10/10/24 22:10	1
13C4 PFOA	85		25 - 150				09/28/24 06:38	10/10/24 22:10	1
13C5 PFNA	113		25 - 150				09/28/24 06:38	10/10/24 22:10	1
13C2 PFDA	108		25 - 150				09/28/24 06:38	10/10/24 22:10	1
13C2 PFUnA	115		25 - 150				09/28/24 06:38	10/10/24 22:10	1
13C3 PFBS	106		25 - 150				09/28/24 06:38	10/10/24 22:10	1
18O2 PFHxS	103		25 - 150				09/28/24 06:38	10/10/24 22:10	1
13C4 PFOS	80		25 - 150				09/28/24 06:38	10/10/24 22:10	1
M2-4:2 FTS	125		25 - 150				09/28/24 06:38	10/10/24 22:10	1
M2-6:2 FTS	194	*5+	25 - 150				09/28/24 06:38	10/10/24 22:10	1
M2-8:2 FTS	120		25 - 150				09/28/24 06:38	10/10/24 22:10	1
13C2 10:2 FTS	470	*5+	25 - 150				09/28/24 06:38	10/10/24 22:10	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanesulfonic acid	<b>9300</b>	<b>B</b>	740	60	ug/Kg		09/28/24 06:38	10/10/24 21:51	50
Br-Perfluorooctanesulfonic acid	<b>2600</b>		740	60	ug/Kg		09/28/24 06:38	10/10/24 21:51	50
<b>Total PFOS</b>	<b>12000</b>	<b>B</b>	740	60	ug/Kg		09/28/24 06:38	10/10/24 21:51	50
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	95		25 - 150				09/28/24 06:38	10/10/24 21:51	50

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	<b>1.3</b>	<b>J B</b>	5.9	1.0	ug/Kg		09/28/24 06:38	10/04/24 23:03	1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID:** NK284445 liver  
**Date Collected:** 07/11/24 00:00  
**Date Received:** 09/17/24 09:40

**Lab Sample ID:** 320-115443-2  
**Matrix:** Tissue

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C5 PFPeA	81		25 - 150	09/28/24 06:38	10/04/24 23:03	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284446 liver**  
**Date Collected: 07/11/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-3**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		22	5.2	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	1
Perfluoropentanoic acid (PFPeA)	ND		22	3.9	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	2
Perfluorohexanoic acid (PFHxA)	ND		22	6.1	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	3
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>3.0 J</b>		22	2.6	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	4
<b>L-Perfluorooctanoic acid</b>	<b>50</b>		22	4.5	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	5
Br-Perfluorooctanoic acid	ND		22	4.5	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	6
<b>Total PFOA</b>	<b>50</b>		22	4.5	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	7
<b>Perfluorononanoic acid (PFNA)</b>	<b>48</b>		22	3.9	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	8
<b>Perfluorodecanoic acid (PFDA)</b>	<b>16 J</b>		22	2.3	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	9
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>7.8 J</b>		22	6.0	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	10
Perfluorobutanesulfonic acid (PFBS)	ND		22	3.8	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	11
Perfluoropentanesulfonic acid (PFPeS)	ND		22	4.0	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	12
<b>Br-Perfluorohexanesulfonic acid</b>	<b>23</b>		22	3.3	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	13
<b>Total PFHxS</b>	<b>530</b>		22	3.3	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	14
<b>L-Perfluorohexanesulfonic acid</b>	<b>500</b>		22	3.3	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	15
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>84</b>		22	4.1	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	16
4:2 FTS	ND		22	5.9	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	17
6:2 FTS	ND		22	9.4	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	18
<b>8:2 FTS</b>	<b>36</b>		22	2.2	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	19
<b>10:2 FTS</b>	<b>6.3 J</b>		22	2.2	ug/Kg	09/28/24 06:38	10/14/24 16:42	10	20
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	107		25 - 150				09/28/24 06:38	10/14/24 16:42	10
13C5 PFPeA	109		25 - 150				09/28/24 06:38	10/14/24 16:42	10
13C2 PFHxA	117		25 - 150				09/28/24 06:38	10/14/24 16:42	10
13C4 PFHpA	109		25 - 150				09/28/24 06:38	10/14/24 16:42	10
13C4 PFOA	106		25 - 150				09/28/24 06:38	10/14/24 16:42	10
13C5 PFNA	120		25 - 150				09/28/24 06:38	10/14/24 16:42	10
13C2 PFDA	118		25 - 150				09/28/24 06:38	10/14/24 16:42	10
13C2 PFUnA	106		25 - 150				09/28/24 06:38	10/14/24 16:42	10
13C3 PFBS	128		25 - 150				09/28/24 06:38	10/14/24 16:42	10
18O2 PFHxS	104		25 - 150				09/28/24 06:38	10/14/24 16:42	10
13C4 PFOS	107		25 - 150				09/28/24 06:38	10/14/24 16:42	10
M2-4:2 FTS	127		25 - 150				09/28/24 06:38	10/14/24 16:42	10
M2-6:2 FTS	214 *5+		25 - 150				09/28/24 06:38	10/14/24 16:42	10
M2-8:2 FTS	143		25 - 150				09/28/24 06:38	10/14/24 16:42	10
13C2 10:2 FTS	308 *5+		25 - 150				09/28/24 06:38	10/14/24 16:42	10

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluorooctanesulfonic acid</b>	<b>6000 B</b>		280	23	ug/Kg	09/28/24 06:38	10/10/24 22:30	50	1
<b>Br-Perfluorooctanesulfonic acid</b>	<b>4300</b>		280	23	ug/Kg	09/28/24 06:38	10/10/24 22:30	50	2
<b>Total PFOS</b>	<b>10000 B</b>		280	23	ug/Kg	09/28/24 06:38	10/10/24 22:30	50	3
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	95		25 - 150				09/28/24 06:38	10/10/24 22:30	50

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284447 liver**

**Lab Sample ID: 320-115443-4**

**Matrix: Tissue**

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.9	1.4	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
Perfluoropentanoic acid (PFPeA)	ND		5.9	1.0	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
Perfluorohexanoic acid (PFHxA)	ND		5.9	1.6	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
Perfluoroheptanoic acid (PFHpA)	ND		5.9	0.68	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
<b>L-Perfluoroctanoic acid</b>	<b>1.2 J</b>		5.9	1.2	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
Br-Perfluoroctanoic acid	ND		5.9	1.2	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
<b>Total PFOA</b>	<b>1.2 J</b>		5.9	1.2	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
Perfluorononanoic acid (PFNA)	ND		5.9	1.0	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
Perfluorodecanoic acid (PFDA)	ND		5.9	0.61	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
Perfluoroundecanoic acid (PFUnA)	ND		5.9	1.6	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
Perfluorobutanesulfonic acid (PFBS)	ND		5.9	1.0	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
Perfluoropentanesulfonic acid (PFPeS)	ND		5.9	1.1	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>1.6 J</b>		5.9	0.87	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
<b>Total PFHxS</b>	<b>6.8</b>		5.9	0.87	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>5.2 J</b>		5.9	0.87	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		5.9	1.1	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
4:2 FTS	ND		5.9	1.6	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
6:2 FTS	ND		5.9	2.5	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
8:2 FTS	ND		5.9	0.59	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
10:2 FTS	ND		5.9	0.59	ug/Kg	09/28/24 06:38	10/10/24 23:47		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	96		25 - 150				09/28/24 06:38	10/10/24 23:47	1
13C5 PFPeA	90		25 - 150				09/28/24 06:38	10/10/24 23:47	1
13C2 PFHxA	100		25 - 150				09/28/24 06:38	10/10/24 23:47	1
13C4 PFHpA	99		25 - 150				09/28/24 06:38	10/10/24 23:47	1
13C4 PFOA	96		25 - 150				09/28/24 06:38	10/10/24 23:47	1
13C5 PFNA	72		25 - 150				09/28/24 06:38	10/10/24 23:47	1
13C2 PFDA	104		25 - 150				09/28/24 06:38	10/10/24 23:47	1
13C2 PFUnA	101		25 - 150				09/28/24 06:38	10/10/24 23:47	1
13C3 PFBS	103		25 - 150				09/28/24 06:38	10/10/24 23:47	1
18O2 PFHxS	100		25 - 150				09/28/24 06:38	10/10/24 23:47	1
13C4 PFOS	95		25 - 150				09/28/24 06:38	10/10/24 23:47	1
M2-4:2 FTS	196 *5+		25 - 150				09/28/24 06:38	10/10/24 23:47	1
M2-6:2 FTS	178 *5+		25 - 150				09/28/24 06:38	10/10/24 23:47	1
M2-8:2 FTS	126		25 - 150				09/28/24 06:38	10/10/24 23:47	1
13C2 10:2 FTS	205 *5+		25 - 150				09/28/24 06:38	10/10/24 23:47	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluoroctanesulfonic acid</b>	<b>78 I B</b>		15	1.2	ug/Kg	09/28/24 06:38	10/15/24 10:47		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>19</b>		15	1.2	ug/Kg	09/28/24 06:38	10/15/24 10:47		1
<b>Total PFOS</b>	<b>96 B</b>		15	1.2	ug/Kg	09/28/24 06:38	10/15/24 10:47		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	89		25 - 150				09/28/24 06:38	10/15/24 10:47	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284448 liver**

**Lab Sample ID: 320-115443-5**

**Matrix: Tissue**

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.8	0.42	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.31	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	0.49	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>1.4</b>	<b>J</b>	1.8	0.21	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
L-Perfluorooctanoic acid	13		1.8	0.36	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
Br-Perfluorooctanoic acid	0.88	J	1.8	0.36	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
<b>Total PFOA</b>	<b>14</b>		1.8	0.36	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
Perfluorononanoic acid (PFNA)	8.7		1.8	0.31	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
Perfluorodecanoic acid (PFDA)	0.82	J	1.8	0.18	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.49	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.94</b>	<b>J B</b>	1.8	0.30	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
Perfluoropentanesulfonic acid (PFPeS)	5.4		1.8	0.32	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
Br-Perfluorohexanesulfonic acid	37		1.8	0.26	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
<b>Total PFHxS</b>	<b>200</b>		1.8	0.26	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
L-Perfluorohexanesulfonic acid	160		1.8	0.26	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
Perfluoroheptanesulfonic acid (PFHpS)	9.4		1.8	0.33	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
4:2 FTS	ND		1.8	0.48	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
<b>6:2 FTS</b>	<b>3.9</b>		1.8	0.76	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
<b>8:2 FTS</b>	<b>1.8</b>		1.8	0.18	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
10:2 FTS	ND		1.8	0.18	ug/Kg		09/28/24 06:38	10/11/24 00:26	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	88		25 - 150				09/28/24 06:38	10/11/24 00:26	1
13C5 PFPeA	89		25 - 150				09/28/24 06:38	10/11/24 00:26	1
13C2 PFHxA	96		25 - 150				09/28/24 06:38	10/11/24 00:26	1
13C4 PFHpA	86		25 - 150				09/28/24 06:38	10/11/24 00:26	1
13C4 PFOA	98		25 - 150				09/28/24 06:38	10/11/24 00:26	1
13C5 PFNA	53		25 - 150				09/28/24 06:38	10/11/24 00:26	1
13C2 PFDA	104		25 - 150				09/28/24 06:38	10/11/24 00:26	1
13C2 PFUnA	105		25 - 150				09/28/24 06:38	10/11/24 00:26	1
13C3 PFBS	104		25 - 150				09/28/24 06:38	10/11/24 00:26	1
18O2 PFHxS	96		25 - 150				09/28/24 06:38	10/11/24 00:26	1
13C4 PFOS	92		25 - 150				09/28/24 06:38	10/11/24 00:26	1
M2-4:2 FTS	172	*5+	25 - 150				09/28/24 06:38	10/11/24 00:26	1
M2-6:2 FTS	208	*5+	25 - 150				09/28/24 06:38	10/11/24 00:26	1
M2-8:2 FTS	153	*5+	25 - 150				09/28/24 06:38	10/11/24 00:26	1
13C2 10:2 FTS	388	*5+	25 - 150				09/28/24 06:38	10/11/24 00:26	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanesulfonic acid	660	B	89	7.3	ug/Kg		09/28/24 06:38	10/14/24 17:21	20
Br-Perfluorooctanesulfonic acid	2600		89	7.3	ug/Kg		09/28/24 06:38	10/14/24 17:21	20
Total PFOS	3200	B	89	7.3	ug/Kg		09/28/24 06:38	10/14/24 17:21	20
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	97		25 - 150				09/28/24 06:38	10/14/24 17:21	20

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284449 liver**  
**Date Collected: 07/11/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-6**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		13	3.0	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
Perfluoropentanoic acid (PFPeA)	ND		13	2.2	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
Perfluorohexanoic acid (PFHxA)	ND		13	3.4	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
Perfluoroheptanoic acid (PFHpA)	ND		13	1.5	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
<b>L-Perfluoroctanoic acid</b>	<b>9.1 J</b>		13	2.5	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
Br-Perfluoroctanoic acid	ND		13	2.5	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
<b>Total PFOA</b>	<b>9.1 J</b>		13	2.5	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>31</b>		13	2.2	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>8.0 J</b>		13	1.3	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>8.1 J</b>		13	3.4	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
Perfluorobutanesulfonic acid (PFBS)	ND		13	2.1	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
Perfluoropentanesulfonic acid (PFPeS)	ND		13	2.3	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>23</b>		13	1.9	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
<b>Total PFHxS</b>	<b>370</b>		13	1.9	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>340</b>		13	1.9	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>33</b>		13	2.3	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
4:2 FTS	ND		13	3.3	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
6:2 FTS	ND		13	5.3	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
<b>8:2 FTS</b>	<b>190</b>		13	1.3	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
<b>10:2 FTS</b>	<b>15</b>		13	1.3	ug/Kg	09/28/24 06:38	10/11/24 01:05		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	96		25 - 150				09/28/24 06:38	10/11/24 01:05	1
13C5 PFPeA	105		25 - 150				09/28/24 06:38	10/11/24 01:05	1
13C2 PFHxA	93		25 - 150				09/28/24 06:38	10/11/24 01:05	1
13C4 PFHpA	91		25 - 150				09/28/24 06:38	10/11/24 01:05	1
13C4 PFOA	98		25 - 150				09/28/24 06:38	10/11/24 01:05	1
13C5 PFNA	107		25 - 150				09/28/24 06:38	10/11/24 01:05	1
13C2 PFDA	98		25 - 150				09/28/24 06:38	10/11/24 01:05	1
13C2 PFUnA	100		25 - 150				09/28/24 06:38	10/11/24 01:05	1
13C3 PFBS	118		25 - 150				09/28/24 06:38	10/11/24 01:05	1
18O2 PFHxS	100		25 - 150				09/28/24 06:38	10/11/24 01:05	1
13C4 PFOS	90		25 - 150				09/28/24 06:38	10/11/24 01:05	1
M2-4:2 FTS	129		25 - 150				09/28/24 06:38	10/11/24 01:05	1
M2-6:2 FTS	191 *5+		25 - 150				09/28/24 06:38	10/11/24 01:05	1
M2-8:2 FTS	108		25 - 150				09/28/24 06:38	10/11/24 01:05	1
13C2 10:2 FTS	231 *5+		25 - 150				09/28/24 06:38	10/11/24 01:05	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluoroctanesulfonic acid</b>	<b>2600 B</b>		310	25	ug/Kg	09/28/24 06:38	10/14/24 17:40		10
<b>Br-Perfluoroctanesulfonic acid</b>	<b>1100</b>		310	25	ug/Kg	09/28/24 06:38	10/14/24 17:40		10
<b>Total PFOS</b>	<b>3700 B</b>		310	25	ug/Kg	09/28/24 06:38	10/14/24 17:40		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	97		25 - 150				09/28/24 06:38	10/14/24 17:40	10

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284450 liver**  
**Date Collected: 07/11/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-7**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		6.3	1.5	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
Perfluoropentanoic acid (PFPeA)	ND		6.3	1.1	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
Perfluorohexanoic acid (PFHxA)	ND		6.3	1.7	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
Perfluoroheptanoic acid (PFHpA)	ND		6.3	0.73	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
<b>L-Perfluoroctanoic acid</b>	<b>2.9 J</b>		6.3	1.3	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
Br-Perfluoroctanoic acid	ND		6.3	1.3	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
<b>Total PFOA</b>	<b>2.9 J</b>		6.3	1.3	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>11</b>		6.3	1.1	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>3.9 J</b>		6.3	0.64	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>3.9 J</b>		6.3	1.7	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
Perfluorobutanesulfonic acid (PFBS)	ND		6.3	1.1	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
Perfluoropentanesulfonic acid (PFPeS)	ND		6.3	1.1	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>5.1 J</b>		6.3	0.93	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
<b>Total PFHxS</b>	<b>92</b>		6.3	0.93	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>87</b>		6.3	0.93	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>13</b>		6.3	1.2	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
4:2 FTS	ND		6.3	1.7	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
6:2 FTS	ND		6.3	2.7	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
<b>8:2 FTS</b>	<b>120</b>		6.3	0.63	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
<b>10:2 FTS</b>	<b>8.0</b>		6.3	0.63	ug/Kg	09/28/24 06:38	10/11/24 01:44		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	99		25 - 150				09/28/24 06:38	10/11/24 01:44	1
13C5 PFPeA	99		25 - 150				09/28/24 06:38	10/11/24 01:44	1
13C2 PFHxA	111		25 - 150				09/28/24 06:38	10/11/24 01:44	1
13C4 PFHpA	91		25 - 150				09/28/24 06:38	10/11/24 01:44	1
13C4 PFOA	107		25 - 150				09/28/24 06:38	10/11/24 01:44	1
13C5 PFNA	116		25 - 150				09/28/24 06:38	10/11/24 01:44	1
13C2 PFDA	106		25 - 150				09/28/24 06:38	10/11/24 01:44	1
13C2 PFUnA	109		25 - 150				09/28/24 06:38	10/11/24 01:44	1
13C3 PFBS	115		25 - 150				09/28/24 06:38	10/11/24 01:44	1
18O2 PFHxS	104		25 - 150				09/28/24 06:38	10/11/24 01:44	1
13C4 PFOS	101		25 - 150				09/28/24 06:38	10/11/24 01:44	1
M2-4:2 FTS	132		25 - 150				09/28/24 06:38	10/11/24 01:44	1
M2-6:2 FTS	201 *5+		25 - 150				09/28/24 06:38	10/11/24 01:44	1
M2-8:2 FTS	133		25 - 150				09/28/24 06:38	10/11/24 01:44	1
13C2 10:2 FTS	203 *5+		25 - 150				09/28/24 06:38	10/11/24 01:44	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluoroctanesulfonic acid</b>	<b>1200 B</b>		160	13	ug/Kg	09/28/24 06:38	10/11/24 01:24		10
<b>Br-Perfluoroctanesulfonic acid</b>	<b>860</b>		160	13	ug/Kg	09/28/24 06:38	10/11/24 01:24		10
<b>Total PFOS</b>	<b>2000 B</b>		160	13	ug/Kg	09/28/24 06:38	10/11/24 01:24		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	97		25 - 150				09/28/24 06:38	10/11/24 01:24	10

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284451 liver**  
**Date Collected: 07/11/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-8**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		17	3.9	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
Perfluoropentanoic acid (PFPeA)	ND		17	2.9	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
Perfluorohexanoic acid (PFHxA)	ND		17	4.6	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
Perfluoroheptanoic acid (PFHpA)	ND		17	1.9	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
<b>L-Perfluoroctanoic acid</b>	<b>5.1 J</b>		17	3.4	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
Br-Perfluoroctanoic acid	ND		17	3.4	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
<b>Total PFOA</b>	<b>5.1 J</b>		17	3.4	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>27</b>		17	2.9	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>7.5 J</b>		17	1.7	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>4.6 J</b>		17	4.5	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
Perfluorobutanesulfonic acid (PFBS)	ND		17	2.8	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
Perfluoropentanesulfonic acid (PFPeS)	ND		17	3.0	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>12 J</b>		17	2.5	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
<b>Total PFHxS</b>	<b>170</b>		17	2.5	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>160</b>		17	2.5	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>25</b>		17	3.1	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
4:2 FTS	ND		17	4.4	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
6:2 FTS	ND		17	7.1	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
<b>8:2 FTS</b>	<b>84</b>		17	1.7	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
<b>10:2 FTS</b>	<b>13 J</b>		17	1.7	ug/Kg	09/28/24 06:38	10/11/24 02:23		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	89		25 - 150				09/28/24 06:38	10/11/24 02:23	1
13C5 PFPeA	102		25 - 150				09/28/24 06:38	10/11/24 02:23	1
13C2 PFHxA	101		25 - 150				09/28/24 06:38	10/11/24 02:23	1
13C4 PFHpA	92		25 - 150				09/28/24 06:38	10/11/24 02:23	1
13C4 PFOA	104		25 - 150				09/28/24 06:38	10/11/24 02:23	1
13C5 PFNA	99		25 - 150				09/28/24 06:38	10/11/24 02:23	1
13C2 PFDA	99		25 - 150				09/28/24 06:38	10/11/24 02:23	1
13C2 PFUnA	99		25 - 150				09/28/24 06:38	10/11/24 02:23	1
13C3 PFBS	118		25 - 150				09/28/24 06:38	10/11/24 02:23	1
18O2 PFHxS	101		25 - 150				09/28/24 06:38	10/11/24 02:23	1
13C4 PFOS	91		25 - 150				09/28/24 06:38	10/11/24 02:23	1
M2-4:2 FTS	132		25 - 150				09/28/24 06:38	10/11/24 02:23	1
M2-6:2 FTS	162	*5+	25 - 150				09/28/24 06:38	10/11/24 02:23	1
M2-8:2 FTS	116		25 - 150				09/28/24 06:38	10/11/24 02:23	1
13C2 10:2 FTS	149		25 - 150				09/28/24 06:38	10/11/24 02:23	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluoroctanesulfonic acid</b>	<b>3200 B</b>		420	34	ug/Kg	09/28/24 06:38	10/14/24 18:00		10
<b>Br-Perfluoroctanesulfonic acid</b>	<b>820</b>		420	34	ug/Kg	09/28/24 06:38	10/14/24 18:00		10
<b>Total PFOS</b>	<b>4000 B</b>		420	34	ug/Kg	09/28/24 06:38	10/14/24 18:00		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOS	102		25 - 150				09/28/24 06:38	10/14/24 18:00	10

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284458 liver**

**Lab Sample ID: 320-115443-9**

**Matrix: Tissue**

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.79	0.19	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
Perfluoropentanoic acid (PFPeA)	ND		0.79	0.14	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
Perfluorohexanoic acid (PFHxA)	ND		0.79	0.21	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
Perfluoroheptanoic acid (PFHpA)	ND		0.79	0.091	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
L-Perfluoroctanoic acid	ND		0.79	0.16	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
Br-Perfluoroctanoic acid	ND		0.79	0.16	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
Total PFOA	ND		0.79	0.16	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.42 J</b>		0.79	0.14	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.48 J</b>		0.79	0.081	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.38 J</b>		0.79	0.21	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.79	0.13	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.79	0.14	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
Br-Perfluorohexanesulfonic acid	ND		0.79	0.12	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
Total PFHxS	ND		0.79	0.12	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
L-Perfluorohexanesulfonic acid	ND		0.79	0.12	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.79	0.15	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>3.0 B</b>		2.0	0.16	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>1.2 J</b>		2.0	0.16	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
<b>Total PFOS</b>	<b>4.2 B</b>		2.0	0.16	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
4:2 FTS	ND		0.79	0.21	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
6:2 FTS	ND		0.79	0.33	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
8:2 FTS	ND		0.79	0.079	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
<b>10:2 FTS</b>	<b>0.14 J</b>		0.79	0.080	ug/Kg	09/28/24 06:38	10/11/24 03:21		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	52		25 - 150			09/28/24 06:38	10/11/24 03:21		1
13C5 PFPeA	85		25 - 150			09/28/24 06:38	10/11/24 03:21		1
13C2 PFHxA	101		25 - 150			09/28/24 06:38	10/11/24 03:21		1
13C4 PFHpA	105		25 - 150			09/28/24 06:38	10/11/24 03:21		1
13C4 PFOA	102		25 - 150			09/28/24 06:38	10/11/24 03:21		1
13C5 PFNA	116		25 - 150			09/28/24 06:38	10/11/24 03:21		1
13C2 PFDA	121		25 - 150			09/28/24 06:38	10/11/24 03:21		1
13C2 PFUnA	142		25 - 150			09/28/24 06:38	10/11/24 03:21		1
13C3 PFBS	109		25 - 150			09/28/24 06:38	10/11/24 03:21		1
18O2 PFHxS	96		25 - 150			09/28/24 06:38	10/11/24 03:21		1
13C4 PFOS	100		25 - 150			09/28/24 06:38	10/11/24 03:21		1
M2-4:2 FTS	306 *5+		25 - 150			09/28/24 06:38	10/11/24 03:21		1
M2-6:2 FTS	270 *5+		25 - 150			09/28/24 06:38	10/11/24 03:21		1
M2-8:2 FTS	380 *5+		25 - 150			09/28/24 06:38	10/11/24 03:21		1
13C2 10:2 FTS	507 *5+		25 - 150			09/28/24 06:38	10/11/24 03:21		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284463 eggshell + contents**

**Lab Sample ID: 320-115443-10**

**Matrix: Tissue**

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.7	B	0.98	0.23	ug/Kg		09/28/24 06:38	10/11/24 04:00	1
Perfluorohexanoic acid (PFHxA)	13	B	0.98	0.27	ug/Kg		09/28/24 06:38	10/11/24 04:00	1
Perfluoroheptanoic acid (PFHpA)	8.0		0.98	0.11	ug/Kg		09/28/24 06:38	10/11/24 04:00	1
Perfluorodecanoic acid (PFDA)	75		0.98	0.10	ug/Kg		09/28/24 06:38	10/11/24 04:00	1
Perfluoroundecanoic acid (PFUnA)	12		0.98	0.27	ug/Kg		09/28/24 06:38	10/11/24 04:00	1
Perfluorobutanesulfonic acid (PFBS)	0.68	J B	0.98	0.17	ug/Kg		09/28/24 06:38	10/11/24 04:00	1
Perfluoropentanesulfonic acid (PFPeS)	4.1		0.98	0.18	ug/Kg		09/28/24 06:38	10/11/24 04:00	1
4:2 FTS	ND		0.98	0.26	ug/Kg		09/28/24 06:38	10/11/24 04:00	1
<b>6:2 FTS</b>	<b>9.9</b>		0.98	0.42	ug/Kg		09/28/24 06:38	10/11/24 04:00	1
<b>10:2 FTS</b>	<b>1.9</b>		0.98	0.099	ug/Kg		09/28/24 06:38	10/11/24 04:00	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	34		25 - 150				09/28/24 06:38	10/11/24 04:00	1
13C2 PFHxA	31		25 - 150				09/28/24 06:38	10/11/24 04:00	1
13C4 PFHpA	33		25 - 150				09/28/24 06:38	10/11/24 04:00	1
13C2 PFDA	30		25 - 150				09/28/24 06:38	10/11/24 04:00	1
13C2 PFUnA	36		25 - 150				09/28/24 06:38	10/11/24 04:00	1
13C3 PFBS	34		25 - 150				09/28/24 06:38	10/11/24 04:00	1
M2-4:2 FTS	49		25 - 150				09/28/24 06:38	10/11/24 04:00	1
M2-6:2 FTS	54		25 - 150				09/28/24 06:38	10/11/24 04:00	1
13C2 10:2 FTS	137		25 - 150				09/28/24 06:38	10/11/24 04:00	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanoic acid	110		98	20	ug/Kg		09/28/24 06:38	10/11/24 03:40	100
Br-Perfluorooctanoic acid	ND		98	20	ug/Kg		09/28/24 06:38	10/11/24 03:40	100
Total PFOA	110		98	20	ug/Kg		09/28/24 06:38	10/11/24 03:40	100
Perfluorononanoic acid (PFNA)	340		98	17	ug/Kg		09/28/24 06:38	10/11/24 03:40	100
Br-Perfluorohexanesulfonic acid	37	J	98	15	ug/Kg		09/28/24 06:38	10/11/24 03:40	100
Total PFHxS	1300		98	15	ug/Kg		09/28/24 06:38	10/11/24 03:40	100
L-Perfluorohexanesulfonic acid	1300		98	15	ug/Kg		09/28/24 06:38	10/11/24 03:40	100
Perfluoroheptanesulfonic acid (PFHpS)	270		98	18	ug/Kg		09/28/24 06:38	10/11/24 03:40	100
L-Perfluoroctanesulfonic acid	26000	E B	250	20	ug/Kg		09/28/24 06:38	10/11/24 03:40	100
Br-Perfluoroctanesulfonic acid	8400		250	20	ug/Kg		09/28/24 06:38	10/11/24 03:40	100
Total PFOS	35000	B	250	20	ug/Kg		09/28/24 06:38	10/11/24 03:40	100
<b>8:2 FTS</b>	<b>180</b>		98	9.8	ug/Kg		09/28/24 06:38	10/11/24 03:40	100
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOA	38		25 - 150				09/28/24 06:38	10/11/24 03:40	100
13C5 PFNA	32		25 - 150				09/28/24 06:38	10/11/24 03:40	100
18O2 PFHxS	38		25 - 150				09/28/24 06:38	10/11/24 03:40	100
13C4 PFOS	29		25 - 150				09/28/24 06:38	10/11/24 03:40	100
M2-8:2 FTS	36		25 - 150				09/28/24 06:38	10/11/24 03:40	100

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	4.2	B	0.98	0.17	ug/Kg		09/28/24 06:38	10/05/24 01:58	1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284463 eggshell + contents**

**Lab Sample ID: 320-115443-10**

**Matrix: Tissue**

Date Collected: 07/11/24 00:00  
Date Received: 09/17/24 09:40

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C5 PFPeA	33		25 - 150	09/28/24 06:38	10/05/24 01:58	1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Client Sample ID: African Rue East Intake

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

## Lab Sample ID: 320-115443-11

Matrix: Tissue

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	21	B	1.1	0.27	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
Perfluorohexanoic acid (PFHxA)	6.1	B	1.1	0.31	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
Perfluoroheptanoic acid (PFHpA)	1.1		1.1	0.13	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
L-Perfluorooctanoic acid	1.9		1.1	0.23	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
Br-Perfluorooctanoic acid	ND		1.1	0.23	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
<b>Total PFOA</b>	<b>1.9</b>		<b>1.1</b>	<b>0.23</b>	<b>ug/Kg</b>	<b>09/28/24 06:38</b>	<b>10/11/24 04:39</b>		<b>1</b>
Perfluorononanoic acid (PFNA)	1.7		1.1	0.20	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
Perfluorodecanoic acid (PFDA)	ND		1.1	0.12	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
Perfluoroundecanoic acid (PFUnA)	ND		1.1	0.31	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
Perfluorobutanesulfonic acid (PFBS)	2.6	B	1.1	0.19	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
Perfluoropentanesulfonic acid (PFPeS)	1.8		1.1	0.20	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
Br-Perfluorohexanesulfonic acid	4.6		1.1	0.17	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
<b>Total PFHxS</b>	<b>38</b>		<b>1.1</b>	<b>0.17</b>	<b>ug/Kg</b>	<b>09/28/24 06:38</b>	<b>10/11/24 04:39</b>		<b>1</b>
L-Perfluorohexanesulfonic acid	34		1.1	0.17	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
Perfluoroheptanesulfonic acid (PFHxP)	1.6		1.1	0.21	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
L-Perfluoroctanesulfonic acid	63	B	2.8	0.23	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
Br-Perfluoroctanesulfonic acid	29		2.8	0.23	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
<b>Total PFOS</b>	<b>92</b>	<b>B</b>	<b>2.8</b>	<b>0.23</b>	<b>ug/Kg</b>	<b>09/28/24 06:38</b>	<b>10/11/24 04:39</b>		<b>1</b>
4:2 FTS	ND		1.1	0.30	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
<b>6:2 FTS</b>	<b>1.6</b>		<b>1.1</b>	<b>0.48</b>	<b>ug/Kg</b>	<b>09/28/24 06:38</b>	<b>10/11/24 04:39</b>		<b>1</b>
8:2 FTS	ND		1.1	0.11	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
10:2 FTS	ND		1.1	0.11	ug/Kg	09/28/24 06:38	10/11/24 04:39		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	50		25 - 150				09/28/24 06:38	10/11/24 04:39	1
13C2 PFHxA	102		25 - 150				09/28/24 06:38	10/11/24 04:39	1
13C4 PFHpA	97		25 - 150				09/28/24 06:38	10/11/24 04:39	1
13C4 PFOA	101		25 - 150				09/28/24 06:38	10/11/24 04:39	1
13C5 PFNA	99		25 - 150				09/28/24 06:38	10/11/24 04:39	1
13C2 PFDA	93		25 - 150				09/28/24 06:38	10/11/24 04:39	1
13C2 PFUnA	91		25 - 150				09/28/24 06:38	10/11/24 04:39	1
13C3 PFBS	110		25 - 150				09/28/24 06:38	10/11/24 04:39	1
18O2 PFHxS	106		25 - 150				09/28/24 06:38	10/11/24 04:39	1
13C4 PFOS	95		25 - 150				09/28/24 06:38	10/11/24 04:39	1
M2-4:2 FTS	209	*5+	25 - 150				09/28/24 06:38	10/11/24 04:39	1
M2-6:2 FTS	123		25 - 150				09/28/24 06:38	10/11/24 04:39	1
M2-8:2 FTS	111		25 - 150				09/28/24 06:38	10/11/24 04:39	1
13C2 10:2 FTS	364	*5+	25 - 150				09/28/24 06:38	10/11/24 04:39	1

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	17	B	1.1	0.20	ug/Kg	09/28/24 06:38	10/05/24 02:17		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFPeA	104		25 - 150				09/28/24 06:38	10/05/24 02:17	1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Client Sample ID: Saltcedar East Intake

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

## Lab Sample ID: 320-115443-12

Matrix: Tissue

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.43	J B	1.1	0.26	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
Perfluorohexanoic acid (PFHxA)	7.9	B	1.1	0.30	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
Perfluoroheptanoic acid (PFHpA)	5.9		1.1	0.13	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
L-Perfluorooctanoic acid	26		1.1	0.22	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
Br-Perfluorooctanoic acid	1.0	J	1.1	0.22	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
Total PFOA	27		1.1	0.22	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
Perfluorononanoic acid (PFNA)	19		1.1	0.19	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
Perfluorodecanoic acid (PFDA)	0.16	J	1.1	0.11	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
Perfluoroundecanoic acid (PFUnA)	ND		1.1	0.30	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
Perfluorobutanesulfonic acid (PFBS)	2.0	B	1.1	0.19	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
Perfluoropentanesulfonic acid (PPeS)	8.8		1.1	0.20	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
Perfluoroheptanesulfonic acid (PFHpS)	48		1.1	0.20	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
4:2 FTS	ND		1.1	0.29	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
6:2 FTS	26		1.1	0.47	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
8:2 FTS	0.11	J	1.1	0.11	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
10:2 FTS	ND		1.1	0.11	ug/Kg	09/28/24 06:38	10/11/24 05:17		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	28		25 - 150				09/28/24 06:38	10/11/24 05:17	1
13C2 PFHxA	99		25 - 150				09/28/24 06:38	10/11/24 05:17	1
13C4 PFHpA	95		25 - 150				09/28/24 06:38	10/11/24 05:17	1
13C4 PFOA	98		25 - 150				09/28/24 06:38	10/11/24 05:17	1
13C5 PFNA	103		25 - 150				09/28/24 06:38	10/11/24 05:17	1
13C2 PFDA	109		25 - 150				09/28/24 06:38	10/11/24 05:17	1
13C2 PFUnA	104		25 - 150				09/28/24 06:38	10/11/24 05:17	1
13C3 PFBS	103		25 - 150				09/28/24 06:38	10/11/24 05:17	1
18O2 PFHxS	106		25 - 150				09/28/24 06:38	10/11/24 05:17	1
13C4 PFOS	92		25 - 150				09/28/24 06:38	10/11/24 05:17	1
M2-4:2 FTS	292	*5+	25 - 150				09/28/24 06:38	10/11/24 05:17	1
M2-6:2 FTS	237	*5+	25 - 150				09/28/24 06:38	10/11/24 05:17	1
M2-8:2 FTS	162	*5+	25 - 150				09/28/24 06:38	10/11/24 05:17	1
13C2 10:2 FTS	447	*5+	25 - 150				09/28/24 06:38	10/11/24 05:17	1

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	25		22	3.3	ug/Kg	09/28/24 06:38	10/11/24 04:58		20
Total PFHxS	420		22	3.3	ug/Kg	09/28/24 06:38	10/11/24 04:58		20
L-Perfluorohexanesulfonic acid	400		22	3.3	ug/Kg	09/28/24 06:38	10/11/24 04:58		20
L-Perfluoroctanesulfonic acid	630	B	55	4.5	ug/Kg	09/28/24 06:38	10/11/24 04:58		20
Br-Perfluoroctanesulfonic acid	600		55	4.5	ug/Kg	09/28/24 06:38	10/11/24 04:58		20
Total PFOS	1200	B	55	4.5	ug/Kg	09/28/24 06:38	10/11/24 04:58		20
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	100		25 - 150				09/28/24 06:38	10/11/24 04:58	20
13C4 PFOS	96		25 - 150				09/28/24 06:38	10/11/24 04:58	20

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PPeA)	1.5	B	1.1	0.19	ug/Kg	09/28/24 06:38	10/05/24 02:37		1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: Saltcedar East Intake**  
**Date Collected: 07/11/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-12**  
**Matrix: Tissue**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C5 PFPeA	92		25 - 150	09/28/24 06:38	10/05/24 02:37	1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Client Sample ID: Saltcedar NE 4-1

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

## Lab Sample ID: 320-115443-13

Matrix: Tissue

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.5	J B	1.7	0.40	ug/Kg	09/28/24 06:38	10/05/24 02:56		1
Perfluoropentanoic acid (PFPeA)	7.1	B	1.7	0.30	ug/Kg	09/28/24 06:38	10/05/24 02:56		1
Perfluorohexanoic acid (PFHxA)	43	B	1.7	0.46	ug/Kg	09/28/24 06:38	10/05/24 02:56		1
Perfluoroheptanoic acid (PFHpA)	63		1.7	0.20	ug/Kg	09/28/24 06:38	10/05/24 02:56		1
Perfluorodecanoic acid (PFDA)	3.8		1.7	0.17	ug/Kg	09/28/24 06:38	10/05/24 02:56		1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.46	ug/Kg	09/28/24 06:38	10/05/24 02:56		1
Perfluorobutanesulfonic acid (PFBS)	3.9	B	1.7	0.29	ug/Kg	09/28/24 06:38	10/05/24 02:56		1
Perfluoropentanesulfonic acid (PFPeS)	33		1.7	0.31	ug/Kg	09/28/24 06:38	10/05/24 02:56		1
4:2 FTS	ND		1.7	0.45	ug/Kg	09/28/24 06:38	10/05/24 02:56		1
8:2 FTS	28		1.7	0.17	ug/Kg	09/28/24 06:38	10/05/24 02:56		1
10:2 FTS	ND		1.7	0.17	ug/Kg	09/28/24 06:38	10/05/24 02:56		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	55		25 - 150				09/28/24 06:38	10/05/24 02:56	1
13C5 PFPeA	115		25 - 150				09/28/24 06:38	10/05/24 02:56	1
13C2 PFHxA	112		25 - 150				09/28/24 06:38	10/05/24 02:56	1
13C4 PFHpA	96		25 - 150				09/28/24 06:38	10/05/24 02:56	1
13C2 PFDA	100		25 - 150				09/28/24 06:38	10/05/24 02:56	1
13C2 PFUnA	106		25 - 150				09/28/24 06:38	10/05/24 02:56	1
13C3 PFBS	113		25 - 150				09/28/24 06:38	10/05/24 02:56	1
M2-4:2 FTS	225	*5+	25 - 150				09/28/24 06:38	10/05/24 02:56	1
M2-8:2 FTS	125		25 - 150				09/28/24 06:38	10/05/24 02:56	1
13C2 10:2 FTS	460	*5+	25 - 150				09/28/24 06:38	10/05/24 02:56	1

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanoic acid	890		17	3.4	ug/Kg	09/28/24 06:38	10/11/24 05:56		10
Br-Perfluorooctanoic acid	41		17	3.4	ug/Kg	09/28/24 06:38	10/11/24 05:56		10
Total PFOA	930		17	3.4	ug/Kg	09/28/24 06:38	10/11/24 05:56		10
Perfluorononanoic acid (PFNA)	230		17	3.0	ug/Kg	09/28/24 06:38	10/11/24 05:56		10
Perfluoroheptanesulfonic acid (PFHpS)	1400		17	3.1	ug/Kg	09/28/24 06:38	10/11/24 05:56		10
6:2 FTS	1300		17	7.2	ug/Kg	09/28/24 06:38	10/11/24 05:56		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOA	100		25 - 150				09/28/24 06:38	10/11/24 05:56	10
13C5 PFNA	102		25 - 150				09/28/24 06:38	10/11/24 05:56	10
13C4 PFOS	75		25 - 150				09/28/24 06:38	10/11/24 05:56	10
M2-6:2 FTS	146		25 - 150				09/28/24 06:38	10/11/24 05:56	10

### Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	210		170	25	ug/Kg	09/28/24 06:38	10/11/24 05:37		100
Total PFHxS	6800		170	25	ug/Kg	09/28/24 06:38	10/11/24 05:37		100
L-Perfluorohexanesulfonic acid	6500		170	25	ug/Kg	09/28/24 06:38	10/11/24 05:37		100
L-Perfluorooctanesulfonic acid	15000	B	420	34	ug/Kg	09/28/24 06:38	10/11/24 05:37		100
Br-Perfluorooctanesulfonic acid	15000		420	34	ug/Kg	09/28/24 06:38	10/11/24 05:37		100
Total PFOS	30000	B	420	34	ug/Kg	09/28/24 06:38	10/11/24 05:37		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	126		25 - 150				09/28/24 06:38	10/11/24 05:37	100

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: Saltcedar NE 4-1**

**Lab Sample ID: 320-115443-13**

Date Collected: 07/11/24 00:00

Matrix: Tissue

Date Received: 09/17/24 09:40

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL2 (Continued)**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOS	97		25 - 150	09/28/24 06:38	10/11/24 05:37	100

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: pickleweed NE 4-1**

**Lab Sample ID: 320-115443-14**

**Matrix: Tissue**

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.3	B	0.99	0.23	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
Perfluorohexanoic acid (PFHxA)	8.2	B	0.99	0.27	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
Perfluoroheptanoic acid (PFHpA)	1.7		0.99	0.11	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
L-Perfluorooctanoic acid	5.0		0.99	0.20	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
Br-Perfluorooctanoic acid	0.37	J	0.99	0.20	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
Total PFOA	5.4		0.99	0.20	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
Perfluorononanoic acid (PFNA)	4.9		0.99	0.17	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
Perfluorodecanoic acid (PFDA)	0.38	J	0.99	0.10	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
Perfluoroundecanoic acid (PFUnA)	ND		0.99	0.27	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
Perfluorobutanesulfonic acid (PFBS)	1.3	B	0.99	0.17	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
Perfluoropentanesulfonic acid (PFPeS)	4.1		0.99	0.18	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
Perfluoroheptanesulfonic acid (PFHpS)	12		0.99	0.18	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
4:2 FTS	ND		0.99	0.26	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
6:2 FTS	54		0.99	0.42	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
8:2 FTS	1.5		0.99	0.099	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
10:2 FTS	ND		0.99	0.10	ug/Kg	09/28/24 06:38	10/11/24 06:54		1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	29		25 - 150				09/28/24 06:38	10/11/24 06:54	1
13C2 PFHxA	86		25 - 150				09/28/24 06:38	10/11/24 06:54	1
13C4 PFHpA	85		25 - 150				09/28/24 06:38	10/11/24 06:54	1
13C4 PFOA	92		25 - 150				09/28/24 06:38	10/11/24 06:54	1
13C5 PFNA	93		25 - 150				09/28/24 06:38	10/11/24 06:54	1
13C2 PFDA	105		25 - 150				09/28/24 06:38	10/11/24 06:54	1
13C2 PFUnA	108		25 - 150				09/28/24 06:38	10/11/24 06:54	1
13C3 PFBS	93		25 - 150				09/28/24 06:38	10/11/24 06:54	1
13C4 PFOS	76		25 - 150				09/28/24 06:38	10/11/24 06:54	1
M2-4:2 FTS	222	*5+	25 - 150				09/28/24 06:38	10/11/24 06:54	1
M2-6:2 FTS	328	*5+	25 - 150				09/28/24 06:38	10/11/24 06:54	1
M2-8:2 FTS	199	*5+	25 - 150				09/28/24 06:38	10/11/24 06:54	1
13C2 10:2 FTS	495	*5+	25 - 150				09/28/24 06:38	10/11/24 06:54	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	14	J	20	2.9	ug/Kg	09/28/24 06:38	10/14/24 18:38		20
Total PFHxS	160		20	2.9	ug/Kg	09/28/24 06:38	10/14/24 18:38		20
L-Perfluorohexanesulfonic acid	140		20	2.9	ug/Kg	09/28/24 06:38	10/14/24 18:38		20
L-Perfluorooctanesulfonic acid	730	B	50	4.0	ug/Kg	09/28/24 06:38	10/14/24 18:38		20
Br-Perfluorooctanesulfonic acid	290		50	4.0	ug/Kg	09/28/24 06:38	10/14/24 18:38		20
Total PFOS	1000	B	50	4.0	ug/Kg	09/28/24 06:38	10/14/24 18:38		20
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	92		25 - 150				09/28/24 06:38	10/14/24 18:38	20
13C4 PFOS	94		25 - 150				09/28/24 06:38	10/14/24 18:38	20

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	3.6	B	0.99	0.17	ug/Kg	09/28/24 06:38	10/05/24 03:15		1

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## **Client Sample Results**

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## **Client Sample ID: pickleweed NE 4-1**

**Lab Sample ID: 320-115443-14**

**Date Collected:** 07/11/24 00:00

## **Matrix: Tissue**

Date Received: 09/17/24 09:40

<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C5 PFPeA	62		25 - 150	09/28/24 06:38	10/05/24 03:15	1

# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: MSBHerp109299 muscle**

**Lab Sample ID: 320-115443-15**

**Matrix: Tissue**

Date Collected: 09/11/24 00:00

Date Received: 09/17/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.1	0.27	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
Perfluoropentanoic acid (PFPeA)	ND		1.1	0.20	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
Perfluorohexanoic acid (PFHxA)	ND		1.1	0.31	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
Perfluoroheptanoic acid (PFHpA)	ND		1.1	0.13	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
<b>L-Perfluoroctanoic acid</b>	<b>4.8</b>		1.1	0.23	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
Br-Perfluoroctanoic acid	ND		1.1	0.23	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
<b>Total PFOA</b>	<b>4.8</b>		1.1	0.23	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>7.1</b>		1.1	0.20	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.0 J</b>		1.1	0.12	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.40 J</b>		1.1	0.31	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.1	0.19	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>0.52 J</b>		1.1	0.21	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>15</b>		1.1	0.21	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
4:2 FTS	ND		1.1	0.30	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
<b>6:2 FTS</b>	<b>2.4</b>		1.1	0.48	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
<b>8:2 FTS</b>	<b>13</b>		1.1	0.11	ug/Kg	09/28/24 06:38	10/11/24 07:33		1
10:2 FTS	ND		1.1	0.11	ug/Kg	09/28/24 06:38	10/11/24 07:33		1

## Isotope Dilution

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	94		25 - 150	09/28/24 06:38	10/11/24 07:33	1
13C5 PFPeA	101		25 - 150	09/28/24 06:38	10/11/24 07:33	1
13C2 PFHxA	86		25 - 150	09/28/24 06:38	10/11/24 07:33	1
13C4 PFHpA	84		25 - 150	09/28/24 06:38	10/11/24 07:33	1
13C4 PFOA	93		25 - 150	09/28/24 06:38	10/11/24 07:33	1
13C5 PFNA	101		25 - 150	09/28/24 06:38	10/11/24 07:33	1
13C2 PFDA	94		25 - 150	09/28/24 06:38	10/11/24 07:33	1
13C2 PFUnA	96		25 - 150	09/28/24 06:38	10/11/24 07:33	1
13C3 PFBS	98		25 - 150	09/28/24 06:38	10/11/24 07:33	1
13C4 PFOS	78		25 - 150	09/28/24 06:38	10/11/24 07:33	1
M2-4:2 FTS	106		25 - 150	09/28/24 06:38	10/11/24 07:33	1
M2-6:2 FTS	114		25 - 150	09/28/24 06:38	10/11/24 07:33	1
M2-8:2 FTS	109		25 - 150	09/28/24 06:38	10/11/24 07:33	1
13C2 10:2 FTS	186 *5+		25 - 150	09/28/24 06:38	10/11/24 07:33	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	23		11	1.7	ug/Kg	09/28/24 06:38	10/11/24 07:14		10
<b>Total PFHxS</b>	<b>200</b>		11	1.7	ug/Kg	09/28/24 06:38	10/11/24 07:14		10
<b>L-Perfluorohexanesulfonic acid</b>	<b>180</b>		11	1.7	ug/Kg	09/28/24 06:38	10/11/24 07:14		10
<b>L-Perfluoroctanesulfonic acid</b>	<b>700 B</b>		28	2.3	ug/Kg	09/28/24 06:38	10/11/24 07:14		10
<b>Br-Perfluoroctanesulfonic acid</b>	<b>240</b>		28	2.3	ug/Kg	09/28/24 06:38	10/11/24 07:14		10
<b>Total PFOS</b>	<b>940 B</b>		28	2.3	ug/Kg	09/28/24 06:38	10/11/24 07:14		10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	89		25 - 150	09/28/24 06:38	10/11/24 07:14	10
13C4 PFOS	88		25 - 150	09/28/24 06:38	10/11/24 07:14	10

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: MSBHerp109299 liver**

**Lab Sample ID: 320-115443-16**

**Matrix: Tissue**

Date Collected: 09/11/24 00:00

Date Received: 09/17/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.6	1.3	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
Perfluoropentanoic acid (PFPeA)	ND		5.6	0.97	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
Perfluorohexanoic acid (PFHxA)	ND		5.6	1.5	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
Perfluoroheptanoic acid (PFHpA)	ND		5.6	0.64	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
<b>L-Perfluorooctanoic acid</b>	<b>32</b>		5.6	1.1	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
<b>Br-Perfluorooctanoic acid</b>	<b>1.5 J</b>		5.6	1.1	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
<b>Total PFOA</b>	<b>34</b>		5.6	1.1	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>58</b>		5.6	0.97	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>4.6 J</b>		5.6	0.57	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
Perfluoroundecanoic acid (PFUnA)	ND		5.6	1.5	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
Perfluorobutanesulfonic acid (PFBS)	ND		5.6	0.94	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>3.1 J</b>		5.6	1.0	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>160</b>		5.6	1.0	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
4:2 FTS	ND		5.6	1.5	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
6:2 FTS	ND		5.6	2.4	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
<b>8:2 FTS</b>	<b>5.8</b>		5.6	0.56	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
<b>10:2 FTS</b>	<b>0.63 J</b>		5.6	0.56	ug/Kg	09/30/24 13:29	10/03/24 05:49		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	97		25 - 150				09/30/24 13:29	10/03/24 05:49	1
13C5 PFPeA	82		25 - 150				09/30/24 13:29	10/03/24 05:49	1
13C2 PFHxA	85		25 - 150				09/30/24 13:29	10/03/24 05:49	1
13C4 PFHpA	78		25 - 150				09/30/24 13:29	10/03/24 05:49	1
13C4 PFOA	95		25 - 150				09/30/24 13:29	10/03/24 05:49	1
13C5 PFNA	94		25 - 150				09/30/24 13:29	10/03/24 05:49	1
13C2 PFDA	90		25 - 150				09/30/24 13:29	10/03/24 05:49	1
13C2 PFUnA	89		25 - 150				09/30/24 13:29	10/03/24 05:49	1
13C3 PFBS	85		25 - 150				09/30/24 13:29	10/03/24 05:49	1
13C4 PFOS	70		25 - 150				09/30/24 13:29	10/03/24 05:49	1
M2-4:2 FTS	99		25 - 150				09/30/24 13:29	10/03/24 05:49	1
M2-6:2 FTS	133		25 - 150				09/30/24 13:29	10/03/24 05:49	1
M2-8:2 FTS	101		25 - 150				09/30/24 13:29	10/03/24 05:49	1
13C2 10:2 FTS	296 *5+		25 - 150				09/30/24 13:29	10/03/24 05:49	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Br-Perfluorohexanesulfonic acid</b>	<b>160</b>		56	8.2	ug/Kg	09/30/24 13:29	10/05/24 05:12		10
<b>Total PFHxS</b>	<b>1500</b>		56	8.2	ug/Kg	09/30/24 13:29	10/05/24 05:12		10
<b>L-Perfluorohexanesulfonic acid</b>	<b>1400</b>		56	8.2	ug/Kg	09/30/24 13:29	10/05/24 05:12		10
<b>L-Perfluorooctanesulfonic acid</b>	<b>4400</b>		140	11	ug/Kg	09/30/24 13:29	10/05/24 05:12		10
<b>Br-Perfluorooctanesulfonic acid</b>	<b>2300</b>		140	11	ug/Kg	09/30/24 13:29	10/05/24 05:12		10
<b>Total PFOS</b>	<b>6800</b>		140	11	ug/Kg	09/30/24 13:29	10/05/24 05:12		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	88		25 - 150				09/30/24 13:29	10/05/24 05:12	10
13C4 PFOS	84		25 - 150				09/30/24 13:29	10/05/24 05:12	10

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# Client Sample Results

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK319555 muscle**

**Lab Sample ID: 320-115443-17**

**Matrix: Tissue**

Date Collected: 09/12/24 00:00

Date Received: 09/17/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.3		1.1	0.27	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
Perfluoropentanoic acid (PFPeA)	0.31 J		1.1	0.20	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
Perfluorohexanoic acid (PFHxA)	ND		1.1	0.31	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
Perfluoroheptanoic acid (PFHpA)	0.40 J		1.1	0.13	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
L-Perfluorooctanoic acid	15		1.1	0.23	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
Br-Perfluorooctanoic acid	0.46 J		1.1	0.23	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
Total PFOA	15		1.1	0.23	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
Perfluorononanoic acid (PFNA)	9.5		1.1	0.20	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
Perfluorodecanoic acid (PFDA)	1.0 J		1.1	0.12	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
Perfluoroundecanoic acid (PFUnA)	ND		1.1	0.31	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.1	0.19	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
Perfluoropentanesulfonic acid (PFPeS)	1.6		1.1	0.21	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
Perfluoroheptanesulfonic acid (PFHpS)	22		1.1	0.21	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
4:2 FTS	ND		1.1	0.30	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
6:2 FTS	1.3		1.1	0.48	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
8:2 FTS	0.31 J		1.1	0.11	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
10:2 FTS	ND		1.1	0.11	ug/Kg	09/30/24 13:29	10/03/24 06:08		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	37		25 - 150				09/30/24 13:29	10/03/24 06:08	1
13C5 PFPeA	67		25 - 150				09/30/24 13:29	10/03/24 06:08	1
13C2 PFHxA	83		25 - 150				09/30/24 13:29	10/03/24 06:08	1
13C4 PFHpA	94		25 - 150				09/30/24 13:29	10/03/24 06:08	1
13C4 PFOA	96		25 - 150				09/30/24 13:29	10/03/24 06:08	1
13C5 PFNA	103		25 - 150				09/30/24 13:29	10/03/24 06:08	1
13C2 PFDA	120		25 - 150				09/30/24 13:29	10/03/24 06:08	1
13C2 PFUnA	112		25 - 150				09/30/24 13:29	10/03/24 06:08	1
13C3 PFBS	82		25 - 150				09/30/24 13:29	10/03/24 06:08	1
13C4 PFOS	81		25 - 150				09/30/24 13:29	10/03/24 06:08	1
M2-4:2 FTS	275 *5+		25 - 150				09/30/24 13:29	10/03/24 06:08	1
M2-6:2 FTS	156 *5+		25 - 150				09/30/24 13:29	10/03/24 06:08	1
M2-8:2 FTS	253 *5+		25 - 150				09/30/24 13:29	10/03/24 06:08	1
13C2 10:2 FTS	530 *5+		25 - 150				09/30/24 13:29	10/03/24 06:08	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	350		11	1.7	ug/Kg	09/30/24 13:29	10/05/24 05:31		10
Total PFHxS	360		11	1.7	ug/Kg	09/30/24 13:29	10/05/24 05:31		10
L-Perfluorohexanesulfonic acid	8.5 J		11	1.7	ug/Kg	09/30/24 13:29	10/05/24 05:31		10
L-Perfluorooctanesulfonic acid	420		28	2.3	ug/Kg	09/30/24 13:29	10/05/24 05:31		10
Br-Perfluorooctanesulfonic acid	220		28	2.3	ug/Kg	09/30/24 13:29	10/05/24 05:31		10
Total PFOS	640		28	2.3	ug/Kg	09/30/24 13:29	10/05/24 05:31		10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	94		25 - 150				09/30/24 13:29	10/05/24 05:31	10
13C4 PFOS	89		25 - 150				09/30/24 13:29	10/05/24 05:31	10

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK319556 muscle**

**Lab Sample ID: 320-115443-18**

**Matrix: Tissue**

Date Collected: 09/13/24 00:00

Date Received: 09/17/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanoic acid (PFBA)</b>	<b>0.78</b>		0.76	0.18	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
Perfluoropentanoic acid (PFPeA)	ND		0.76	0.13	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
Perfluorohexanoic acid (PFHxA)	ND		0.76	0.21	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
Perfluoroheptanoic acid (PFHpA)	ND		0.76	0.089	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
<b>L-Perfluorooctanoic acid</b>	<b>0.15 J</b>		0.76	0.15	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
Br-Perfluorooctanoic acid	ND		0.76	0.15	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
<b>Total PFOA</b>	<b>0.15 J</b>		0.76	0.15	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
Perfluorononanoic acid (PFNA)	ND		0.76	0.13	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
Perfluorodecanoic acid (PFDA)	ND		0.76	0.079	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
Perfluoroundecanoic acid (PFUnA)	ND		0.76	0.21	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.76	0.13	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.76	0.14	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
Br-Perfluorohexanesulfonic acid	ND		0.76	0.11	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
<b>Total PFHxS</b>	<b>0.16 J</b>		0.76	0.11	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.16 J</b>		0.76	0.11	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.76	0.14	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
<b>L-Perfluorooctanesulfonic acid</b>	<b>0.31 J</b>		1.9	0.15	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
Br-Perfluorooctanesulfonic acid	ND		1.9	0.15	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
<b>Total PFOS</b>	<b>0.31 J</b>		1.9	0.15	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
4:2 FTS	ND		0.76	0.20	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
6:2 FTS	ND		0.76	0.32	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
8:2 FTS	ND		0.76	0.076	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
10:2 FTS	ND		0.76	0.077	ug/Kg		09/30/24 13:29	10/03/24 06:28	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	81		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
13C5 PFPeA	88		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
13C2 PFHxA	93		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
13C4 PFHpA	86		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
13C4 PFOA	96		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
13C5 PFNA	104		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
13C2 PFDA	99		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
13C2 PFUnA	99		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
13C3 PFBS	82		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
18O2 PFHxS	89		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
13C4 PFOS	94		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
M2-4:2 FTS	116		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
M2-6:2 FTS	116		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
M2-8:2 FTS	107		25 - 150			09/30/24 13:29	10/03/24 06:28	1	
13C2 10:2 FTS	481 *5+		25 - 150			09/30/24 13:29	10/03/24 06:28	1	

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK319556 liver**

**Lab Sample ID: 320-115443-19**

**Matrix: Tissue**

Date Collected: 09/14/24 00:00

Date Received: 09/17/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.1		0.71	0.17	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Perfluoropentanoic acid (PFPeA)	ND		0.71	0.13	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Perfluorohexanoic acid (PFHxA)	ND		0.71	0.20	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Perfluoroheptanoic acid (PFHpA)	0.12 J		0.71	0.083	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
L-Perfluorooctanoic acid	0.87		0.71	0.14	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Br-Perfluorooctanoic acid	0.14 J		0.71	0.14	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Total PFOA	1.0		0.71	0.14	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Perfluorononanoic acid (PFNA)	0.66 J		0.71	0.13	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Perfluorodecanoic acid (PFDA)	0.27 J		0.71	0.074	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Perfluoroundecanoic acid (PFUnA)	ND		0.71	0.19	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.71	0.12	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.71	0.13	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Br-Perfluorohexanesulfonic acid	ND		0.71	0.11	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Total PFHxS	0.63 J		0.71	0.11	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
L-Perfluorohexanesulfonic acid	0.63 J		0.71	0.11	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.71	0.13	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
L-Perfluoroctanesulfonic acid	2.1		1.8	0.15	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Br-Perfluoroctanesulfonic acid	0.94 J		1.8	0.15	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
Total PFOS	3.0		1.8	0.15	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
4:2 FTS	ND		0.71	0.19	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
6:2 FTS	ND		0.71	0.30	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
8:2 FTS	ND		0.71	0.071	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
10:2 FTS	ND		0.71	0.072	ug/Kg	09/30/24 13:29	10/03/24 06:47		1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	78		25 - 150			09/30/24 13:29	10/03/24 06:47		1
13C5 PFPeA	91		25 - 150			09/30/24 13:29	10/03/24 06:47		1
13C2 PFHxA	90		25 - 150			09/30/24 13:29	10/03/24 06:47		1
13C4 PFHpA	89		25 - 150			09/30/24 13:29	10/03/24 06:47		1
13C4 PFOA	96		25 - 150			09/30/24 13:29	10/03/24 06:47		1
13C5 PFNA	113		25 - 150			09/30/24 13:29	10/03/24 06:47		1
13C2 PFDA	105		25 - 150			09/30/24 13:29	10/03/24 06:47		1
13C2 PFUnA	109		25 - 150			09/30/24 13:29	10/03/24 06:47		1
13C3 PFBS	96		25 - 150			09/30/24 13:29	10/03/24 06:47		1
18O2 PFHxS	101		25 - 150			09/30/24 13:29	10/03/24 06:47		1
13C4 PFOS	103		25 - 150			09/30/24 13:29	10/03/24 06:47		1
M2-4:2 FTS	217 *5+		25 - 150			09/30/24 13:29	10/03/24 06:47		1
M2-6:2 FTS	164 *5+		25 - 150			09/30/24 13:29	10/03/24 06:47		1
M2-8:2 FTS	163 *5+		25 - 150			09/30/24 13:29	10/03/24 06:47		1
13C2 10:2 FTS	514 *5+		25 - 150			09/30/24 13:29	10/03/24 06:47		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: MSB89187 femur**  
**Date Collected: 11/28/94 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-20**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	4.8	1.1	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	4.8	0.83	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	4.8	1.3	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	4.8	0.55	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
L-Perfluoroctanoic acid	ND	H H3	4.8	0.96	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Br-Perfluoroctanoic acid	ND	H H3	4.8	0.96	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Total PFOA	ND	H H3	4.8	0.96	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Perfluorononanoic acid (PFNA)	ND	H H3	4.8	0.83	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Perfluorodecanoic acid (PFDA)	ND	H H3	4.8	0.49	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	4.8	1.3	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	4.8	0.81	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	4.8	0.86	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Br-Perfluorohexanesulfonic acid	ND	H H3	4.8	0.70	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Total PFHxS	ND	H H3	4.8	0.70	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
L-Perfluorohexanesulfonic acid	ND	H H3	4.8	0.70	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	4.8	0.88	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
L-Perfluorooctanesulfonic acid	ND	H H3	12	0.97	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Br-Perfluorooctanesulfonic acid	ND	H H3	12	0.97	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Total PFOS	ND	H H3	12	0.97	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
4:2 FTS	ND	H H3	4.8	1.3	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
6:2 FTS	ND	H H3	4.8	2.0	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
8:2 FTS	ND	H H3	4.8	0.48	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
<b>10:2 FTS</b>	<b>0.55</b>	<b>J H H3</b>	4.8	0.48	ug/Kg	09/30/24 13:29	10/03/24 07:07		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	94		25 - 150			09/30/24 13:29	10/03/24 07:07		1
13C5 PFPeA	92		25 - 150			09/30/24 13:29	10/03/24 07:07		1
13C2 PFHxA	93		25 - 150			09/30/24 13:29	10/03/24 07:07		1
13C4 PFHpA	86		25 - 150			09/30/24 13:29	10/03/24 07:07		1
13C4 PFOA	101		25 - 150			09/30/24 13:29	10/03/24 07:07		1
13C5 PFNA	101		25 - 150			09/30/24 13:29	10/03/24 07:07		1
13C2 PFDA	108		25 - 150			09/30/24 13:29	10/03/24 07:07		1
13C2 PFUnA	100		25 - 150			09/30/24 13:29	10/03/24 07:07		1
13C3 PFBS	89		25 - 150			09/30/24 13:29	10/03/24 07:07		1
18O2 PFHxS	100		25 - 150			09/30/24 13:29	10/03/24 07:07		1
13C4 PFOS	103		25 - 150			09/30/24 13:29	10/03/24 07:07		1
M2-4:2 FTS	247	*5+	25 - 150			09/30/24 13:29	10/03/24 07:07		1
M2-6:2 FTS	110		25 - 150			09/30/24 13:29	10/03/24 07:07		1
M2-8:2 FTS	123		25 - 150			09/30/24 13:29	10/03/24 07:07		1
13C2 10:2 FTS	155	*5+	25 - 150			09/30/24 13:29	10/03/24 07:07		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: MSB92667 femur**  
**Date Collected: 08/16/94 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-21**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	33	7.9	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	33	5.8	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	33	9.1	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	33	3.9	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
L-Perfluoroctanoic acid	ND	H H3	33	6.7	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Br-Perfluoroctanoic acid	ND	H H3	33	6.7	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Total PFOA	ND	H H3	33	6.7	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Perfluorononanoic acid (PFNA)	ND	H H3	33	5.8	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Perfluorodecanoic acid (PFDA)	ND	H H3	33	3.4	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	33	9.1	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	33	5.7	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	33	6.0	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Br-Perfluorohexanesulfonic acid	ND	H H3	33	4.9	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Total PFHxS	ND	H H3	33	4.9	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
L-Perfluorohexanesulfonic acid	ND	H H3	33	4.9	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	33	6.2	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>310</b>	<b>H H3</b>	<b>83</b>	<b>6.8</b>	<b>ug/Kg</b>	<b>09/30/24 13:29</b>	<b>10/03/24 07:26</b>		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>61</b>	<b>J H H3</b>	<b>83</b>	<b>6.8</b>	<b>ug/Kg</b>	<b>09/30/24 13:29</b>	<b>10/03/24 07:26</b>		1
<b>Total PFOS</b>	<b>370</b>	<b>H H3</b>	<b>83</b>	<b>6.8</b>	<b>ug/Kg</b>	<b>09/30/24 13:29</b>	<b>10/03/24 07:26</b>		1
4:2 FTS	ND	H H3	33	8.9	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
6:2 FTS	ND	H H3	33	14	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
8:2 FTS	ND	H H3	33	3.3	ug/Kg	09/30/24 13:29	10/03/24 07:26		1
<b>10:2 FTS</b>	<b>3.7</b>	<b>J H H3</b>	<b>33</b>	<b>3.4</b>	<b>ug/Kg</b>	<b>09/30/24 13:29</b>	<b>10/03/24 07:26</b>		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	104		25 - 150			09/30/24 13:29	10/03/24 07:26		1
13C5 PFPeA	104		25 - 150			09/30/24 13:29	10/03/24 07:26		1
13C2 PFHxA	96		25 - 150			09/30/24 13:29	10/03/24 07:26		1
13C4 PFHpA	87		25 - 150			09/30/24 13:29	10/03/24 07:26		1
13C4 PFOA	90		25 - 150			09/30/24 13:29	10/03/24 07:26		1
13C5 PFNA	99		25 - 150			09/30/24 13:29	10/03/24 07:26		1
13C2 PFDA	93		25 - 150			09/30/24 13:29	10/03/24 07:26		1
13C2 PFUnA	93		25 - 150			09/30/24 13:29	10/03/24 07:26		1
13C3 PFBS	94		25 - 150			09/30/24 13:29	10/03/24 07:26		1
18O2 PFHxS	99		25 - 150			09/30/24 13:29	10/03/24 07:26		1
13C4 PFOS	94		25 - 150			09/30/24 13:29	10/03/24 07:26		1
M2-4:2 FTS	145		25 - 150			09/30/24 13:29	10/03/24 07:26		1
M2-6:2 FTS	97		25 - 150			09/30/24 13:29	10/03/24 07:26		1
M2-8:2 FTS	98		25 - 150			09/30/24 13:29	10/03/24 07:26		1
13C2 10:2 FTS	113		25 - 150			09/30/24 13:29	10/03/24 07:26		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: MSB61848 femur**  
**Date Collected: 05/11/89 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-22**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	25	5.9	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	25	4.4	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	25	6.8	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	25	2.9	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
L-Perfluoroctanoic acid	ND	H H3	25	5.1	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Br-Perfluoroctanoic acid	ND	H H3	25	5.1	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Total PFOA	ND	H H3	25	5.1	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Perfluorononanoic acid (PFNA)	ND	H H3	25	4.4	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Perfluorodecanoic acid (PFDA)	ND	H H3	25	2.6	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	25	6.8	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	25	4.3	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	25	4.5	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Br-Perfluorohexanesulfonic acid	ND	H H3	25	3.7	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Total PFHxS	ND	H H3	25	3.7	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
L-Perfluorohexanesulfonic acid	ND	H H3	25	3.7	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	25	4.6	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
L-Perfluoroctanesulfonic acid	ND	H H3	63	5.1	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Br-Perfluoroctanesulfonic acid	ND	H H3	63	5.1	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Total PFOS	ND	H H3	63	5.1	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
4:2 FTS	ND	H H3	25	6.7	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
6:2 FTS	ND	H H3	25	11	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
8:2 FTS	ND	H H3	25	2.5	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
<b>10:2 FTS</b>	<b>2.7</b>	<b>J H H3</b>	25	2.5	ug/Kg	09/30/24 13:29	10/03/24 07:45		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	106		25 - 150			09/30/24 13:29	10/03/24 07:45		1
13C5 PFPeA	98		25 - 150			09/30/24 13:29	10/03/24 07:45		1
13C2 PFHxA	94		25 - 150			09/30/24 13:29	10/03/24 07:45		1
13C4 PFHpA	88		25 - 150			09/30/24 13:29	10/03/24 07:45		1
13C4 PFOA	97		25 - 150			09/30/24 13:29	10/03/24 07:45		1
13C5 PFNA	96		25 - 150			09/30/24 13:29	10/03/24 07:45		1
13C2 PFDA	95		25 - 150			09/30/24 13:29	10/03/24 07:45		1
13C2 PFUnA	88		25 - 150			09/30/24 13:29	10/03/24 07:45		1
13C3 PFBS	97		25 - 150			09/30/24 13:29	10/03/24 07:45		1
18O2 PFHxS	89		25 - 150			09/30/24 13:29	10/03/24 07:45		1
13C4 PFOS	91		25 - 150			09/30/24 13:29	10/03/24 07:45		1
M2-4:2 FTS	137		25 - 150			09/30/24 13:29	10/03/24 07:45		1
M2-6:2 FTS	106		25 - 150			09/30/24 13:29	10/03/24 07:45		1
M2-8:2 FTS	98		25 - 150			09/30/24 13:29	10/03/24 07:45		1
13C2 10:2 FTS	116		25 - 150			09/30/24 13:29	10/03/24 07:45		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: MSB89196 femur**

**Lab Sample ID: 320-115443-23**

Date Collected: 11/27/94 00:00

Matrix: Tissue

Date Received: 09/17/24 09:40

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	25	5.9	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	25	4.4	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	25	6.8	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	25	2.9	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
L-Perfluoroctanoic acid	ND	H H3	25	5.1	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Br-Perfluoroctanoic acid	ND	H H3	25	5.1	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Total PFOA	ND	H H3	25	5.1	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Perfluorononanoic acid (PFNA)	ND	H H3	25	4.4	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Perfluorodecanoic acid (PFDA)	ND	H H3	25	2.6	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	25	6.8	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	25	4.3	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	25	4.5	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Br-Perfluorohexanesulfonic acid	ND	H H3	25	3.7	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Total PFHxS	ND	H H3	25	3.7	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
L-Perfluorohexanesulfonic acid	ND	H H3	25	3.7	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	25	4.6	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
L-Perfluoroctanesulfonic acid	ND	H H3	63	5.1	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Br-Perfluoroctanesulfonic acid	ND	H H3	63	5.1	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Total PFOS	ND	H H3	63	5.1	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
4:2 FTS	ND	H H3	25	6.7	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
6:2 FTS	ND	H H3	25	11	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
8:2 FTS	ND	H H3	25	2.5	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
10:2 FTS	ND	H H3	25	2.5	ug/Kg	09/30/24 13:29	10/03/24 08:24		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	93		25 - 150			09/30/24 13:29	10/03/24 08:24		1
13C5 PFPeA	98		25 - 150			09/30/24 13:29	10/03/24 08:24		1
13C2 PFHxA	98		25 - 150			09/30/24 13:29	10/03/24 08:24		1
13C4 PFHpA	86		25 - 150			09/30/24 13:29	10/03/24 08:24		1
13C4 PFOA	101		25 - 150			09/30/24 13:29	10/03/24 08:24		1
13C5 PFNA	103		25 - 150			09/30/24 13:29	10/03/24 08:24		1
13C2 PFDA	93		25 - 150			09/30/24 13:29	10/03/24 08:24		1
13C2 PFUnA	93		25 - 150			09/30/24 13:29	10/03/24 08:24		1
13C3 PFBS	98		25 - 150			09/30/24 13:29	10/03/24 08:24		1
18O2 PFHxS	101		25 - 150			09/30/24 13:29	10/03/24 08:24		1
13C4 PFOS	95		25 - 150			09/30/24 13:29	10/03/24 08:24		1
M2-4:2 FTS	204	*5+	25 - 150			09/30/24 13:29	10/03/24 08:24		1
M2-6:2 FTS	100		25 - 150			09/30/24 13:29	10/03/24 08:24		1
M2-8:2 FTS	106		25 - 150			09/30/24 13:29	10/03/24 08:24		1
13C2 10:2 FTS	125		25 - 150			09/30/24 13:29	10/03/24 08:24		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: MSB87701 femur**  
**Date Collected: 11/26/94 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-24**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	2.1	0.49	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.45</b>	<b>J H H3</b>	2.1	0.36	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	2.1	0.57	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	2.1	0.24	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
L-Perfluoroctanoic acid	ND	H H3	2.1	0.42	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Br-Perfluoroctanoic acid	ND	H H3	2.1	0.42	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Total PFOA	ND	H H3	2.1	0.42	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Perfluorononanoic acid (PFNA)	ND	H H3	2.1	0.36	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Perfluorodecanoic acid (PFDA)	ND	H H3	2.1	0.21	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	2.1	0.57	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	2.1	0.35	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	2.1	0.38	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Br-Perfluorohexanesulfonic acid	ND	H H3	2.1	0.31	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Total PFHxS	ND	H H3	2.1	0.31	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
L-Perfluorohexanesulfonic acid	ND	H H3	2.1	0.31	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	2.1	0.39	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
L-Perfluoroctanesulfonic acid	ND	H H3	5.2	0.42	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Br-Perfluoroctanesulfonic acid	ND	H H3	5.2	0.42	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Total PFOS	ND	H H3	5.2	0.42	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
4:2 FTS	ND	H H3	2.1	0.55	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
6:2 FTS	ND	H H3	2.1	0.88	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
8:2 FTS	ND	H H3	2.1	0.21	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
10:2 FTS	ND	H H3	2.1	0.21	ug/Kg	09/30/24 13:29	10/03/24 08:44		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	59		25 - 150			09/30/24 13:29	10/03/24 08:44		1
13C5 PFPeA	88		25 - 150			09/30/24 13:29	10/03/24 08:44		1
13C2 PFHxA	93		25 - 150			09/30/24 13:29	10/03/24 08:44		1
13C4 PFHpA	90		25 - 150			09/30/24 13:29	10/03/24 08:44		1
13C4 PFOA	96		25 - 150			09/30/24 13:29	10/03/24 08:44		1
13C5 PFNA	102		25 - 150			09/30/24 13:29	10/03/24 08:44		1
13C2 PFDA	107		25 - 150			09/30/24 13:29	10/03/24 08:44		1
13C2 PFUnA	109		25 - 150			09/30/24 13:29	10/03/24 08:44		1
13C3 PFBS	91		25 - 150			09/30/24 13:29	10/03/24 08:44		1
18O2 PFHxS	96		25 - 150			09/30/24 13:29	10/03/24 08:44		1
13C4 PFOS	97		25 - 150			09/30/24 13:29	10/03/24 08:44		1
M2-4:2 FTS	287	*5+	25 - 150			09/30/24 13:29	10/03/24 08:44		1
M2-6:2 FTS	160	*5+	25 - 150			09/30/24 13:29	10/03/24 08:44		1
M2-8:2 FTS	198	*5+	25 - 150			09/30/24 13:29	10/03/24 08:44		1
13C2 10:2 FTS	282	*5+	25 - 150			09/30/24 13:29	10/03/24 08:44		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: MSB87702 femur**  
**Date Collected: 11/27/94 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-25**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	2.4	0.56	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.56</b>	<b>J H H3</b>	2.4	0.42	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	2.4	0.65	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	2.4	0.28	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
L-Perfluoroctanoic acid	ND	H H3	2.4	0.48	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Br-Perfluoroctanoic acid	ND	H H3	2.4	0.48	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Total PFOA	ND	H H3	2.4	0.48	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Perfluorononanoic acid (PFNA)	ND	H H3	2.4	0.42	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Perfluorodecanoic acid (PFDA)	ND	H H3	2.4	0.25	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	2.4	0.65	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	2.4	0.40	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	2.4	0.43	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Br-Perfluorohexanesulfonic acid	ND	H H3	2.4	0.35	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Total PFHxS	ND	H H3	2.4	0.35	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
L-Perfluorohexanesulfonic acid	ND	H H3	2.4	0.35	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	2.4	0.44	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>0.77</b>	<b>J H H3</b>	6.0	0.48	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Br-Perfluoroctanesulfonic acid	ND	H H3	6.0	0.48	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
<b>Total PFOS</b>	<b>0.77</b>	<b>J H H3</b>	6.0	0.48	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
4:2 FTS	ND	H H3	2.4	0.63	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
6:2 FTS	ND	H H3	2.4	1.0	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
8:2 FTS	ND	H H3	2.4	0.24	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
<b>10:2 FTS</b>	<b>0.25</b>	<b>J H H3</b>	2.4	0.24	ug/Kg	09/30/24 13:29	10/03/24 09:03		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	65		25 - 150			09/30/24 13:29	10/03/24 09:03		1
13C5 PFPeA	91		25 - 150			09/30/24 13:29	10/03/24 09:03		1
13C2 PFHxA	84		25 - 150			09/30/24 13:29	10/03/24 09:03		1
13C4 PFHpA	100		25 - 150			09/30/24 13:29	10/03/24 09:03		1
13C4 PFOA	104		25 - 150			09/30/24 13:29	10/03/24 09:03		1
13C5 PFNA	116		25 - 150			09/30/24 13:29	10/03/24 09:03		1
13C2 PFDA	129		25 - 150			09/30/24 13:29	10/03/24 09:03		1
13C2 PFUnA	120		25 - 150			09/30/24 13:29	10/03/24 09:03		1
13C3 PFBS	94		25 - 150			09/30/24 13:29	10/03/24 09:03		1
18O2 PFHxS	103		25 - 150			09/30/24 13:29	10/03/24 09:03		1
13C4 PFOS	106		25 - 150			09/30/24 13:29	10/03/24 09:03		1
M2-4:2 FTS	306	*5+	25 - 150			09/30/24 13:29	10/03/24 09:03		1
M2-6:2 FTS	210	*5+	25 - 150			09/30/24 13:29	10/03/24 09:03		1
M2-8:2 FTS	273	*5+	25 - 150			09/30/24 13:29	10/03/24 09:03		1
13C2 10:2 FTS	345	*5+	25 - 150			09/30/24 13:29	10/03/24 09:03		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: MSB89195 femur**  
**Date Collected: 11/07/94 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-26**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	11	2.6	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	11	1.9	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	11	3.0	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	11	1.3	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
L-Perfluoroctanoic acid	ND	H H3	11	2.2	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Br-Perfluoroctanoic acid	ND	H H3	11	2.2	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Total PFOA	ND	H H3	11	2.2	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Perfluorononanoic acid (PFNA)	ND	H H3	11	1.9	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Perfluorodecanoic acid (PFDA)	ND	H H3	11	1.1	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	11	3.0	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	11	1.9	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	11	2.0	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Br-Perfluorohexanesulfonic acid	ND	H H3	11	1.6	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Total PFHxS	ND	H H3	11	1.6	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
L-Perfluorohexanesulfonic acid	ND	H H3	11	1.6	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	11	2.1	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
L-Perfluoroctanesulfonic acid	ND	H H3	28	2.3	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Br-Perfluoroctanesulfonic acid	ND	H H3	28	2.3	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Total PFOS	ND	H H3	28	2.3	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
4:2 FTS	ND	H H3	11	3.0	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
6:2 FTS	ND	H H3	11	4.7	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
8:2 FTS	ND	H H3	11	1.1	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
<b>10:2 FTS</b>	<b>1.2</b>	<b>J H H3</b>	11	1.1	ug/Kg	09/30/24 13:29	10/03/24 09:23		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	97		25 - 150			09/30/24 13:29	10/03/24 09:23		1
13C5 PFPeA	93		25 - 150			09/30/24 13:29	10/03/24 09:23		1
13C2 PFHxA	92		25 - 150			09/30/24 13:29	10/03/24 09:23		1
13C4 PFHpA	86		25 - 150			09/30/24 13:29	10/03/24 09:23		1
13C4 PFOA	97		25 - 150			09/30/24 13:29	10/03/24 09:23		1
13C5 PFNA	100		25 - 150			09/30/24 13:29	10/03/24 09:23		1
13C2 PFDA	99		25 - 150			09/30/24 13:29	10/03/24 09:23		1
13C2 PFUnA	96		25 - 150			09/30/24 13:29	10/03/24 09:23		1
13C3 PFBS	92		25 - 150			09/30/24 13:29	10/03/24 09:23		1
18O2 PFHxS	90		25 - 150			09/30/24 13:29	10/03/24 09:23		1
13C4 PFOS	91		25 - 150			09/30/24 13:29	10/03/24 09:23		1
M2-4:2 FTS	159	*5+	25 - 150			09/30/24 13:29	10/03/24 09:23		1
M2-6:2 FTS	102		25 - 150			09/30/24 13:29	10/03/24 09:23		1
M2-8:2 FTS	104		25 - 150			09/30/24 13:29	10/03/24 09:23		1
13C2 10:2 FTS	122		25 - 150			09/30/24 13:29	10/03/24 09:23		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: MSB61849 femur**  
**Date Collected: 05/11/89 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-27**  
**Matrix: Tissue**

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	H H3	17	3.9	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Perfluoropentanoic acid (PFPeA)	ND	H H3	17	2.9	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Perfluorohexanoic acid (PFHxA)	ND	H H3	17	4.6	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Perfluoroheptanoic acid (PFHpA)	ND	H H3	17	1.9	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
L-Perfluoroctanoic acid	ND	H H3	17	3.4	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Br-Perfluoroctanoic acid	ND	H H3	17	3.4	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Total PFOA	ND	H H3	17	3.4	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Perfluorononanoic acid (PFNA)	ND	H H3	17	2.9	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Perfluorodecanoic acid (PFDA)	ND	H H3	17	1.7	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Perfluoroundecanoic acid (PFUnA)	ND	H H3	17	4.5	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Perfluorobutanesulfonic acid (PFBS)	ND	H H3	17	2.8	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Perfluoropentanesulfonic acid (PFPeS)	ND	H H3	17	3.0	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Br-Perfluorohexanesulfonic acid	ND	H H3	17	2.5	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Total PFHxS	ND	H H3	17	2.5	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
L-Perfluorohexanesulfonic acid	ND	H H3	17	2.5	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Perfluoroheptanesulfonic acid (PFHpS)	ND	H H3	17	3.1	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
L-Perfluoroctanesulfonic acid	ND	H H3	42	3.4	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Br-Perfluoroctanesulfonic acid	ND	H H3	42	3.4	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Total PFOS	ND	H H3	42	3.4	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
4:2 FTS	ND	H H3	17	4.4	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
6:2 FTS	ND	H H3	17	7.1	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
8:2 FTS	ND	H H3	17	1.7	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
10:2 FTS	ND	H H3	17	1.7	ug/Kg	09/30/24 13:29	10/03/24 09:42		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	92		25 - 150			09/30/24 13:29	10/03/24 09:42		1
13C5 PFPeA	95		25 - 150			09/30/24 13:29	10/03/24 09:42		1
13C2 PFHxA	101		25 - 150			09/30/24 13:29	10/03/24 09:42		1
13C4 PFHpA	86		25 - 150			09/30/24 13:29	10/03/24 09:42		1
13C4 PFOA	96		25 - 150			09/30/24 13:29	10/03/24 09:42		1
13C5 PFNA	98		25 - 150			09/30/24 13:29	10/03/24 09:42		1
13C2 PFDA	98		25 - 150			09/30/24 13:29	10/03/24 09:42		1
13C2 PFUnA	96		25 - 150			09/30/24 13:29	10/03/24 09:42		1
13C3 PFBS	85		25 - 150			09/30/24 13:29	10/03/24 09:42		1
18O2 PFHxS	90		25 - 150			09/30/24 13:29	10/03/24 09:42		1
13C4 PFOS	91		25 - 150			09/30/24 13:29	10/03/24 09:42		1
M2-4:2 FTS	129		25 - 150			09/30/24 13:29	10/03/24 09:42		1
M2-6:2 FTS	102		25 - 150			09/30/24 13:29	10/03/24 09:42		1
M2-8:2 FTS	97		25 - 150			09/30/24 13:29	10/03/24 09:42		1
13C2 10:2 FTS	132		25 - 150			09/30/24 13:29	10/03/24 09:42		1

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# Isotope Dilution Summary

Client: University of New Mexico

Job ID: 320-115443-1

Project/Site: Holloman Lake PFAS Research

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-115443-1 - DL	NK284441 liver								
320-115443-1	NK284441 liver	98	105	83	107	101	107	108	113
320-115443-2 - RA	NK284445 liver		81						
320-115443-2 - DL	NK284445 liver								
320-115443-2	NK284445 liver	101		99	100	85	113	108	115
320-115443-3 - DL	NK284446 liver								
320-115443-3	NK284446 liver	107	109	117	109	106	120	118	106
320-115443-4	NK284447 liver	96	90	100	99	96	72	104	101
320-115443-4 - RA	NK284447 liver								
320-115443-5	NK284448 liver	88	89	96	86	98	53	104	105
320-115443-5 - DL	NK284448 liver								
320-115443-6	NK284449 liver	96	105	93	91	98	107	98	100
320-115443-6 - DL	NK284449 liver								
320-115443-7 - DL	NK284450 liver								
320-115443-7	NK284450 liver	99	99	111	91	107	116	106	109
320-115443-8	NK284451 liver	89	102	101	92	104	99	99	99
320-115443-8 - DL	NK284451 liver								
320-115443-9	NK284458 liver	52	85	101	105	102	116	121	142
320-115443-10 - RA	NK284463 eggshell + contents		33						
320-115443-10 - DL	NK284463 eggshell + contents					38	32		
320-115443-10	NK284463 eggshell + contents	34		31	33			30	36
320-115443-11 - RA	African Rue East Intake		104						
320-115443-11	African Rue East Intake	50		102	97	101	99	93	91
320-115443-12 - RA	Saltcedar East Intake		92						
320-115443-12 - DL	Saltcedar East Intake								
320-115443-12	Saltcedar East Intake	28		99	95	98	103	109	104
320-115443-13	Saltcedar NE 4-1	55	115	112	96			100	106
320-115443-13 - DL2	Saltcedar NE 4-1								
320-115443-13 - DL	Saltcedar NE 4-1					100	102		
320-115443-14 - RA	pickleweed NE 4-1		62						
320-115443-14	pickleweed NE 4-1	29		86	85	92	93	105	108
320-115443-14 - DL	pickleweed NE 4-1								
320-115443-15 - DL	MSBHerp109299 muscle								
320-115443-15	MSBHerp109299 muscle	94	101	86	84	93	101	94	96
320-115443-16	MSBHerp109299 liver	97	82	85	78	95	94	90	89
320-115443-16 - DL	MSBHerp109299 liver								
320-115443-17	NK319555 muscle	37	67	83	94	96	103	120	112
320-115443-17 - DL	NK319555 muscle								
320-115443-18	NK319556 muscle	81	88	93	86	96	104	99	99
320-115443-19	NK319556 liver	78	91	90	89	96	113	105	109
320-115443-20	MSB89187 femur	94	92	93	86	101	101	108	100
320-115443-21	MSB92667 femur	104	104	96	87	90	99	93	93
320-115443-22	MSB61848 femur	106	98	94	88	97	96	95	88
320-115443-23	MSB89196 femur	93	98	98	86	101	103	93	93
320-115443-24	MSB87701 femur	59	88	93	90	96	102	107	109
320-115443-25	MSB87702 femur	65	91	84	100	104	116	129	120
320-115443-26	MSB89195 femur	97	93	92	86	97	100	99	96
320-115443-27	MSB61849 femur	92	95	101	86	96	98	98	96
LCS 320-802924/2-A	Lab Control Sample	90	97	88	88	99	93	94	106

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# Isotope Dilution Summary

Client: University of New Mexico

Job ID: 320-115443-1

Project/Site: Holloman Lake PFAS Research

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
LCS 320-803280/2-A	Lab Control Sample	91	83	89	77	90	90	88	89
LCSD 320-802924/3-A	Lab Control Sample Dup	88	94	87	85	94	96	94	97
LCSD 320-803280/3-A	Lab Control Sample Dup	82	83	84	75	87	89	86	87
MB 320-802924/1-A	Method Blank	88	79	93	87	95	91	93	99
MB 320-803280/1-A	Method Blank	92	83	84	77	90	88	86	88
Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)	
320-115443-1 - DL	NK284441 liver			89					
320-115443-1	NK284441 liver	111	109	92	124	177 *5+	140	397 *5+	
320-115443-2 - RA	NK284445 liver								
320-115443-2 - DL	NK284445 liver			95					
320-115443-2	NK284445 liver	106	103	80	125	194 *5+	120	470 *5+	
320-115443-3 - DL	NK284446 liver			95					
320-115443-3	NK284446 liver	128	104	107	127	214 *5+	143	308 *5+	
320-115443-4	NK284447 liver	103	100	95	196 *5+	178 *5+	126	205 *5+	
320-115443-4 - RA	NK284447 liver			89					
320-115443-5	NK284448 liver	104	96	92	172 *5+	208 *5+	153 *5+	388 *5+	
320-115443-5 - DL	NK284448 liver			97					
320-115443-6	NK284449 liver	118	100	90	129	191 *5+	108	231 *5+	
320-115443-6 - DL	NK284449 liver			97					
320-115443-7 - DL	NK284450 liver			97					
320-115443-7	NK284450 liver	115	104	101	132	201 *5+	133	203 *5+	
320-115443-8	NK284451 liver	118	101	91	132	162 *5+	116	149	
320-115443-8 - DL	NK284451 liver			102					
320-115443-9	NK284458 liver	109	96	100	306 *5+	270 *5+	380 *5+	507 *5+	
320-115443-10 - RA	NK284463 eggshell + contents								
320-115443-10 - DL	NK284463 eggshell + contents		38	29				36	
320-115443-10	NK284463 eggshell + contents	34			49	54		137	
320-115443-11 - RA	African Rue East Intake								
320-115443-11	African Rue East Intake	110	106	95	209 *5+	123	111	364 *5+	
320-115443-12 - RA	Saltcedar East Intake								
320-115443-12 - DL	Saltcedar East Intake		100	96					
320-115443-12	Saltcedar East Intake	103	106	92	292 *5+	237 *5+	162 *5+	447 *5+	
320-115443-13	Saltcedar NE 4-1	113			225 *5+		125	460 *5+	
320-115443-13 - DL2	Saltcedar NE 4-1		126	97					
320-115443-13 - DL	Saltcedar NE 4-1			75			146		
320-115443-14 - RA	pickleweed NE 4-1								
320-115443-14	pickleweed NE 4-1	93		76	222 *5+	328 *5+	199 *5+	495 *5+	
320-115443-14 - DL	pickleweed NE 4-1		92	94					
320-115443-15 - DL	MSBHerp109299 muscle		89	88					
320-115443-15	MSBHerp109299 muscle	98		78	106	114	109	186 *5+	
320-115443-16	MSBHerp109299 liver	85		70	99	133	101	296 *5+	
320-115443-16 - DL	MSBHerp109299 liver		88	84					
320-115443-17	NK319555 muscle	82		81	275 *5+	156 *5+	253 *5+	530 *5+	
320-115443-17 - DL	NK319555 muscle		94	89					
320-115443-18	NK319556 muscle	82	89	94	116	116	107	481 *5+	
320-115443-19	NK319556 liver	96	101	103	217 *5+	164 *5+	163 *5+	514 *5+	
320-115443-20	MSB89187 femur	89	100	103	247 *5+	110	123	155 *5+	
320-115443-21	MSB92667 femur	94	99	94	145	97	98	113	

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# Isotope Dilution Summary

Client: University of New Mexico

Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)						
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)
320-115443-22	MSB61848 femur	97	89	91	137	106	98	116
320-115443-23	MSB89196 femur	98	101	95	204 *5+	100	106	125
320-115443-24	MSB87701 femur	91	96	97	287 *5+	160 *5+	198 *5+	282 *5+
320-115443-25	MSB87702 femur	94	103	106	306 *5+	210 *5+	273 *5+	345 *5+
320-115443-26	MSB89195 femur	92	90	91	159 *5+	102	104	122
320-115443-27	MSB61849 femur	85	90	91	129	102	97	132
LCS 320-802924/2-A	Lab Control Sample	93	97	98	99	93	116	437 *5+
LCS 320-803280/2-A	Lab Control Sample	85	89	86	94	102	96	380 *5+
LCSD 320-802924/3-A	Lab Control Sample Dup	97	90	95	88	100	103	427 *5+
LCSD 320-803280/3-A	Lab Control Sample Dup	76	83	83	92	99	93	361 *5+
MB 320-802924/1-A	Method Blank	102	85	89	100	93	103	404 *5+
MB 320-803280/1-A	Method Blank	76	82	80	103	105	95	352 *5+

### Surrogate Legend

PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA  
 PFHxA = 13C2 PFHxA  
 C4PFHA = 13C4 PFHpA  
 PFOA = 13C4 PFOA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 PFUnA = 13C2 PFUnA  
 C3PFBS = 13C3 PFBS  
 PFHxS = 18O2 PFHxS  
 PFOS = 13C4 PFOS  
 M242FTS = M2-4:2 FTS  
 M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 M102FTS = 13C2 10:2 FTS

# QC Sample Results

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

**Lab Sample ID: MB 320-802924/1-A**

**Matrix: Tissue**

**Analysis Batch: 806065**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 802924**

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	0.437	J	1.0	0.24	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Perfluoropentanoic acid (PFPeA)	0.710	J	1.0	0.18	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Perfluorohexanoic acid (PFHxA)	0.287	J	1.0	0.27	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Total PFOA	ND		1.0	0.20	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.10	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.27	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Perfluorobutanesulfonic acid (PFBS)	0.227	J	1.0	0.17	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Total PFHxS	ND		1.0	0.15	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
L-Perfluoroctanesulfonic acid	0.705	J	2.5	0.20	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Br-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
Total PFOS	0.705	J	2.5	0.20	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
4:2 FTS	ND		1.0	0.27	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
6:2 FTS	ND		1.0	0.42	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
8:2 FTS	ND		1.0	0.10	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
10:2 FTS	ND		1.0	0.10	ug/Kg		09/28/24 06:38	10/10/24 20:14	1
<b>MB MB</b>									
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	88		25 - 150				09/28/24 06:38	10/10/24 20:14	1
13C5 PFPeA	79		25 - 150				09/28/24 06:38	10/10/24 20:14	1
13C2 PFHxA	93		25 - 150				09/28/24 06:38	10/10/24 20:14	1
13C4 PFHpA	87		25 - 150				09/28/24 06:38	10/10/24 20:14	1
13C4 PFOA	95		25 - 150				09/28/24 06:38	10/10/24 20:14	1
13C5 PFNA	91		25 - 150				09/28/24 06:38	10/10/24 20:14	1
13C2 PFDA	93		25 - 150				09/28/24 06:38	10/10/24 20:14	1
13C2 PFUnA	99		25 - 150				09/28/24 06:38	10/10/24 20:14	1
13C3 PFBS	102		25 - 150				09/28/24 06:38	10/10/24 20:14	1
18O2 PFHxS	85		25 - 150				09/28/24 06:38	10/10/24 20:14	1
13C4 PFOS	89		25 - 150				09/28/24 06:38	10/10/24 20:14	1
M2-4:2 FTS	100		25 - 150				09/28/24 06:38	10/10/24 20:14	1
M2-6:2 FTS	93		25 - 150				09/28/24 06:38	10/10/24 20:14	1
M2-8:2 FTS	103		25 - 150				09/28/24 06:38	10/10/24 20:14	1
13C2 10:2 FTS	404	*5+	25 - 150				09/28/24 06:38	10/10/24 20:14	1

**Lab Sample ID: LCS 320-802924/2-A**

**Matrix: Tissue**

**Analysis Batch: 806065**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 802924**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Perfluorobutanoic acid (PFBA)	10.0	10.3		ug/Kg	103	76 - 136	

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-802924/2-A**

**Matrix: Tissue**

**Analysis Batch: 806065**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 802924**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoropentanoic acid (PFPeA)	10.0	10.5		ug/Kg		105	69 - 129
Perfluorohexanoic acid (PFHxA)	10.0	8.67		ug/Kg		87	71 - 131
Perfluoroheptanoic acid (PFHpA)	10.0	9.53		ug/Kg		95	71 - 131
L-Perfluoroctanoic acid	10.0	8.71		ug/Kg		87	72 - 132
Total PFOA	10.0	8.71		ug/Kg		87	
Perfluorononanoic acid (PFNA)	10.0	9.58		ug/Kg		96	73 - 133
Perfluorodecanoic acid (PFDA)	10.0	10.3		ug/Kg		103	72 - 132
Perfluoroundecanoic acid (PFUnA)	10.0	9.63		ug/Kg		96	66 - 126
Perfluorobutanesulfonic acid (PFBS)	8.88	9.71		ug/Kg		109	69 - 129
Perfluoropentanesulfonic acid (PFPeS)	9.40	8.63		ug/Kg		92	66 - 126
Total PFHxS	9.12	6.92		ug/Kg		76	
L-Perfluorohexanesulfonic acid	9.12	6.92		ug/Kg		76	62 - 122
Perfluoroheptanesulfonic acid (PFHpS)	9.54	8.37		ug/Kg		88	76 - 136
L-Perfluoroctanesulfonic acid	9.30	8.81		ug/Kg		95	68 - 141
Total PFOS	9.30	8.81		ug/Kg		95	
4:2 FTS	9.38	8.16		ug/Kg		87	68 - 143
6:2 FTS	9.52	8.00		ug/Kg		84	73 - 139
8:2 FTS	9.60	8.34		ug/Kg		87	75 - 135
10:2 FTS	9.66	8.93		ug/Kg		92	69 - 145

Isotope Dilution	%Recovery	LCS Qualifier	Limits
13C4 PFBA	90		25 - 150
13C5 PFPeA	97		25 - 150
13C2 PFHxA	88		25 - 150
13C4 PFHpA	88		25 - 150
13C4 PFOA	99		25 - 150
13C5 PFNA	93		25 - 150
13C2 PFDA	94		25 - 150
13C2 PFUnA	106		25 - 150
13C3 PFBS	93		25 - 150
18O2 PFHxS	97		25 - 150
13C4 PFOS	98		25 - 150
M2-4:2 FTS	99		25 - 150
M2-6:2 FTS	93		25 - 150
M2-8:2 FTS	116		25 - 150
13C2 10:2 FTS	437 *5+		25 - 150

**Lab Sample ID: LCSD 320-802924/3-A**

**Matrix: Tissue**

**Analysis Batch: 806065**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 802924**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	10.0	11.1		ug/Kg		111	76 - 136	8	30
Perfluoropentanoic acid (PFPeA)	10.0	10.7		ug/Kg		107	69 - 129	2	30
Perfluorohexanoic acid (PFHxA)	10.0	8.98		ug/Kg		90	71 - 131	4	30
Perfluoroheptanoic acid (PFHpA)	10.0	10.5		ug/Kg		105	71 - 131	9	30

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# QC Sample Results

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-802924/3-A**

**Matrix: Tissue**

**Analysis Batch: 806065**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 802924**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
L-Perfluoroctanoic acid	10.0	9.76		ug/Kg		98	72 - 132	11	30
Total PFOA	10.0	9.76		ug/Kg		98		11	
Perfluorononanoic acid (PFNA)	10.0	9.94		ug/Kg		99	73 - 133	4	30
Perfluorodecanoic acid (PFDA)	10.0	10.9		ug/Kg		109	72 - 132	5	30
Perfluoroundecanoic acid (PFUnA)	10.0	10.9		ug/Kg		109	66 - 126	12	30
Perfluorobutanesulfonic acid (PFBS)	8.88	8.94		ug/Kg		101	69 - 129	8	30
Perfluoropentanesulfonic acid (PFPeS)	9.40	9.30		ug/Kg		99	66 - 126	8	30
Total PFHxS	9.12	7.60		ug/Kg		83		9	
L-Perfluorohexanesulfonic acid	9.12	7.60		ug/Kg		83	62 - 122	9	30
Perfluoroheptanesulfonic acid (PFHpS)	9.54	8.74		ug/Kg		92	76 - 136	4	30
L-Perfluoroctanesulfonic acid	9.30	9.85		ug/Kg		106	68 - 141	11	30
Total PFOS	9.30	9.85		ug/Kg		106		11	
4:2 FTS	9.38	8.49		ug/Kg		90	68 - 143	4	30
6:2 FTS	9.52	8.25		ug/Kg		87	73 - 139	3	30
8:2 FTS	9.60	8.84		ug/Kg		92	75 - 135	6	30
10:2 FTS	9.66	9.41		ug/Kg		97	69 - 145	5	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	88		25 - 150
13C5 PFPeA	94		25 - 150
13C2 PFHxA	87		25 - 150
13C4 PFHpA	85		25 - 150
13C4 PFOA	94		25 - 150
13C5 PFNA	96		25 - 150
13C2 PFDA	94		25 - 150
13C2 PFUnA	97		25 - 150
13C3 PFBS	97		25 - 150
18O2 PFHxS	90		25 - 150
13C4 PFOS	95		25 - 150
M2-4:2 FTS	88		25 - 150
M2-6:2 FTS	100		25 - 150
M2-8:2 FTS	103		25 - 150
13C2 10:2 FTS	427 *5+		25 - 150

**Lab Sample ID: MB 320-803280/1-A**

**Matrix: Tissue**

**Analysis Batch: 803965**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 803280**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		09/30/24 13:29	10/03/24 04:51	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		09/30/24 13:29	10/03/24 04:51	1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg		09/30/24 13:29	10/03/24 04:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		09/30/24 13:29	10/03/24 04:51	1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		09/30/24 13:29	10/03/24 04:51	1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		09/30/24 13:29	10/03/24 04:51	1
Total PFOA	ND		1.0	0.20	ug/Kg		09/30/24 13:29	10/03/24 04:51	1

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID:** MB 320-803280/1-A

**Matrix:** Tissue

**Analysis Batch:** 803965

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 803280

Analyte	Result	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier								
Perfluorononanoic acid (PFNA)	ND			1.0	0.18	ug/Kg				1
Perfluorodecanoic acid (PFDA)	ND			1.0	0.10	ug/Kg				1
Perfluoroundecanoic acid (PFUnA)	ND			1.0	0.27	ug/Kg				1
Perfluorobutanesulfonic acid (PFBS)	ND			1.0	0.17	ug/Kg				1
Perfluoropentanesulfonic acid (PFPeS)	ND			1.0	0.18	ug/Kg				1
Br-Perfluorohexanesulfonic acid	ND			1.0	0.15	ug/Kg				1
Total PFHxS	ND			1.0	0.15	ug/Kg				1
L-Perfluorohexanesulfonic acid	ND			1.0	0.15	ug/Kg				1
Perfluoroheptanesulfonic acid (PFHpS)	ND			1.0	0.19	ug/Kg				1
L-Perfluoroctanesulfonic acid	ND			2.5	0.20	ug/Kg				1
Br-Perfluoroctanesulfonic acid	ND			2.5	0.20	ug/Kg				1
Total PFOS	ND			2.5	0.20	ug/Kg				1
4:2 FTS	ND			1.0	0.27	ug/Kg				1
6:2 FTS	ND			1.0	0.42	ug/Kg				1
8:2 FTS	ND			1.0	0.10	ug/Kg				1
10:2 FTS	ND			1.0	0.10	ug/Kg				1

Isotope Dilution	%Recovery	MB		Limits	Prepared	Analyzed	Dil Fac
		Qualifier					
13C4 PFBA	92			25 - 150			1
13C5 PFPeA	83			25 - 150			1
13C2 PFHxA	84			25 - 150			1
13C4 PFHpA	77			25 - 150			1
13C4 PFOA	90			25 - 150			1
13C5 PFNA	88			25 - 150			1
13C2 PFDA	86			25 - 150			1
13C2 PFUnA	88			25 - 150			1
13C3 PFBS	76			25 - 150			1
18O2 PFHxS	82			25 - 150			1
13C4 PFOS	80			25 - 150			1
M2-4:2 FTS	103			25 - 150			1
M2-6:2 FTS	105			25 - 150			1
M2-8:2 FTS	95			25 - 150			1
13C2 10:2 FTS	352 *5+			25 - 150			1

**Lab Sample ID:** LCS 320-803280/2-A

**Matrix:** Tissue

**Analysis Batch:** 803965

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 803280

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	
Perfluorobutanoic acid (PFBA)	10.0	11.0		ug/Kg		110	76 - 136	
Perfluoropentanoic acid (PFPeA)	10.0	11.2		ug/Kg		112	69 - 129	
Perfluorohexanoic acid (PFHxA)	10.0	10.2		ug/Kg		102	71 - 131	
Perfluoroheptanoic acid (PFHpA)	10.0	10.3		ug/Kg		103	71 - 131	
L-Perfluoroctanoic acid	10.0	10.4		ug/Kg		104	72 - 132	
Total PFOA	10.0	10.4		ug/Kg		104		
Perfluorononanoic acid (PFNA)	10.0	10.8		ug/Kg		108	73 - 133	
Perfluorodecanoic acid (PFDA)	10.0	11.4		ug/Kg		114	72 - 132	

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-803280/2-A**

**Matrix: Tissue**

**Analysis Batch: 803965**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 803280**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoroundecanoic acid (PFUnA)	10.0	11.6		ug/Kg	116	66 - 126	
Perfluorobutanesulfonic acid (PFBS)	8.88	10.3		ug/Kg	116	69 - 129	
Perfluoropentanesulfonic acid (PFPeS)	9.40	10.2		ug/Kg	108	66 - 126	
Total PFHxS	9.12	7.63		ug/Kg	84		
L-Perfluorohexanesulfonic acid	9.12	7.63		ug/Kg	84	62 - 122	
Perfluoroheptanesulfonic acid (PFHpS)	9.54	11.0		ug/Kg	115	76 - 136	
L-Perfluoroctanesulfonic acid	9.30	10.6		ug/Kg	114	68 - 141	
Total PFOS	9.30	10.6		ug/Kg	114		
4:2 FTS	9.38	9.49		ug/Kg	101	68 - 143	
6:2 FTS	9.52	9.33		ug/Kg	98	73 - 139	
8:2 FTS	9.60	12.0		ug/Kg	125	75 - 135	
10:2 FTS	9.66	12.7		ug/Kg	132	69 - 145	

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	91		25 - 150
13C5 PFPeA	83		25 - 150
13C2 PFHxA	89		25 - 150
13C4 PFHpA	77		25 - 150
13C4 PFOA	90		25 - 150
13C5 PFNA	90		25 - 150
13C2 PFDA	88		25 - 150
13C2 PFUnA	89		25 - 150
13C3 PFBS	85		25 - 150
18O2 PFHxS	89		25 - 150
13C4 PFOS	86		25 - 150
M2-4:2 FTS	94		25 - 150
M2-6:2 FTS	102		25 - 150
M2-8:2 FTS	96		25 - 150
13C2 10:2 FTS	380 *5+		25 - 150

**Lab Sample ID: LCSD 320-803280/3-A**

**Matrix: Tissue**

**Analysis Batch: 803965**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 803280**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
Perfluorobutanoic acid (PFBA)	10.0	10.3		ug/Kg	103	76 - 136	7	30
Perfluoropentanoic acid (PFPeA)	10.0	10.8		ug/Kg	108	69 - 129	4	30
Perfluorohexanoic acid (PFHxA)	10.0	9.25		ug/Kg	93	71 - 131	10	30
Perfluoroheptanoic acid (PFHpA)	10.0	10.7		ug/Kg	107	71 - 131	4	30
L-Perfluoroctanoic acid	10.0	9.37		ug/Kg	94	72 - 132	10	30
Total PFOA	10.0	9.37		ug/Kg	94		10	
Perfluorononanoic acid (PFNA)	10.0	9.72		ug/Kg	97	73 - 133	11	30
Perfluorodecanoic acid (PFDA)	10.0	11.1		ug/Kg	111	72 - 132	3	30
Perfluoroundecanoic acid (PFUnA)	10.0	10.6		ug/Kg	106	66 - 126	9	30

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-803280/3-A**

**Matrix: Tissue**

**Analysis Batch: 803965**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 803280**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD
				ug/Kg	105	Limits	Limit
Perfluorobutanesulfonic acid (PFBS)	8.88	9.37				69 - 129	10
Perfluoropentanesulfonic acid (PFPeS)	9.40	10.2		ug/Kg	109	66 - 126	0
Total PFHxS	9.12	7.97		ug/Kg	87		30
L-Perfluorohexanesulfonic acid	9.12	7.97		ug/Kg	87	62 - 122	4
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.0		ug/Kg	105	76 - 136	9
L-Perfluoroctanesulfonic acid	9.30	9.98		ug/Kg	107	68 - 141	6
Total PFOS	9.30	9.98		ug/Kg	107		30
4:2 FTS	9.38	10.1		ug/Kg	108	68 - 143	7
6:2 FTS	9.52	9.29		ug/Kg	98	73 - 139	1
8:2 FTS	9.60	11.9		ug/Kg	124	75 - 135	0
10:2 FTS	9.66	12.2		ug/Kg	127	69 - 145	4

*LCSD*   *LCSD*

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
13C4 PFBA	82		25 - 150
13C5 PFPeA	83		25 - 150
13C2 PFHxA	84		25 - 150
13C4 PFHpA	75		25 - 150
13C4 PFOA	87		25 - 150
13C5 PFNA	89		25 - 150
13C2 PFDA	86		25 - 150
13C2 PFUnA	87		25 - 150
13C3 PFBS	76		25 - 150
18O2 PFHxS	83		25 - 150
13C4 PFOS	83		25 - 150
M2-4:2 FTS	92		25 - 150
M2-6:2 FTS	99		25 - 150
M2-8:2 FTS	93		25 - 150
13C2 10:2 FTS	361 *5+		25 - 150

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# QC Association Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## LCMS

### Pre Prep Batch: 802923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-115443-10	NK284463 eggshell + contents	Total/NA	Tissue	In-House	
320-115443-10 - DL	NK284463 eggshell + contents	Total/NA	Tissue	In-House	
320-115443-10 - RA	NK284463 eggshell + contents	Total/NA	Tissue	In-House	
320-115443-16 - DL	MSBHerp109299 liver	Total/NA	Tissue	In-House	
320-115443-16	MSBHerp109299 liver	Total/NA	Tissue	In-House	
320-115443-17 - DL	NK319555 muscle	Total/NA	Tissue	In-House	
320-115443-17	NK319555 muscle	Total/NA	Tissue	In-House	
320-115443-18	NK319556 muscle	Total/NA	Tissue	In-House	
320-115443-19	NK319556 liver	Total/NA	Tissue	In-House	
320-115443-20	MSB89187 femur	Total/NA	Tissue	In-House	
320-115443-21	MSB92667 femur	Total/NA	Tissue	In-House	
320-115443-22	MSB61848 femur	Total/NA	Tissue	In-House	
320-115443-23	MSB89196 femur	Total/NA	Tissue	In-House	
320-115443-24	MSB87701 femur	Total/NA	Tissue	In-House	
320-115443-25	MSB87702 femur	Total/NA	Tissue	In-House	
320-115443-26	MSB89195 femur	Total/NA	Tissue	In-House	
320-115443-27	MSB61849 femur	Total/NA	Tissue	In-House	

### Prep Batch: 802924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-115443-1 - DL	NK284441 liver	Total/NA	Tissue	SHAKE	
320-115443-1	NK284441 liver	Total/NA	Tissue	SHAKE	
320-115443-2	NK284445 liver	Total/NA	Tissue	SHAKE	
320-115443-2 - DL	NK284445 liver	Total/NA	Tissue	SHAKE	
320-115443-2 - RA	NK284445 liver	Total/NA	Tissue	SHAKE	
320-115443-3	NK284446 liver	Total/NA	Tissue	SHAKE	
320-115443-3 - DL	NK284446 liver	Total/NA	Tissue	SHAKE	
320-115443-4 - RA	NK284447 liver	Total/NA	Tissue	SHAKE	
320-115443-4	NK284447 liver	Total/NA	Tissue	SHAKE	
320-115443-5 - DL	NK284448 liver	Total/NA	Tissue	SHAKE	
320-115443-5	NK284448 liver	Total/NA	Tissue	SHAKE	
320-115443-6	NK284449 liver	Total/NA	Tissue	SHAKE	
320-115443-6 - DL	NK284449 liver	Total/NA	Tissue	SHAKE	
320-115443-7	NK284450 liver	Total/NA	Tissue	SHAKE	
320-115443-7 - DL	NK284450 liver	Total/NA	Tissue	SHAKE	
320-115443-8 - DL	NK284451 liver	Total/NA	Tissue	SHAKE	
320-115443-8	NK284451 liver	Total/NA	Tissue	SHAKE	
320-115443-9	NK284458 liver	Total/NA	Tissue	SHAKE	
320-115443-10 - RA	NK284463 eggshell + contents	Total/NA	Tissue	SHAKE	802923
320-115443-10	NK284463 eggshell + contents	Total/NA	Tissue	SHAKE	802923
320-115443-10 - DL	NK284463 eggshell + contents	Total/NA	Tissue	SHAKE	802923
320-115443-11	African Rue East Intake	Total/NA	Tissue	SHAKE	
320-115443-11 - RA	African Rue East Intake	Total/NA	Tissue	SHAKE	
320-115443-12 - RA	Saltcedar East Intake	Total/NA	Tissue	SHAKE	
320-115443-12	Saltcedar East Intake	Total/NA	Tissue	SHAKE	
320-115443-12 - DL	Saltcedar East Intake	Total/NA	Tissue	SHAKE	
320-115443-13 - DL2	Saltcedar NE 4-1	Total/NA	Tissue	SHAKE	
320-115443-13	Saltcedar NE 4-1	Total/NA	Tissue	SHAKE	
320-115443-13 - DL	Saltcedar NE 4-1	Total/NA	Tissue	SHAKE	
320-115443-14 - DL	pickleweed NE 4-1	Total/NA	Tissue	SHAKE	
320-115443-14	pickleweed NE 4-1	Total/NA	Tissue	SHAKE	

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# QC Association Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## LCMS (Continued)

### Prep Batch: 802924 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-115443-14 - RA	pickleweed NE 4-1	Total/NA	Tissue	SHAKE	
320-115443-15 - DL	MSBHerp109299 muscle	Total/NA	Tissue	SHAKE	
320-115443-15	MSBHerp109299 muscle	Total/NA	Tissue	SHAKE	
MB 320-802924/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-802924/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-802924/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

### Prep Batch: 803280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-115443-16	MSBHerp109299 liver	Total/NA	Tissue	SHAKE	802923
320-115443-16 - DL	MSBHerp109299 liver	Total/NA	Tissue	SHAKE	802923
320-115443-17	NK319555 muscle	Total/NA	Tissue	SHAKE	802923
320-115443-17 - DL	NK319555 muscle	Total/NA	Tissue	SHAKE	802923
320-115443-18	NK319556 muscle	Total/NA	Tissue	SHAKE	802923
320-115443-19	NK319556 liver	Total/NA	Tissue	SHAKE	802923
320-115443-20	MSB89187 femur	Total/NA	Tissue	SHAKE	802923
320-115443-21	MSB92667 femur	Total/NA	Tissue	SHAKE	802923
320-115443-22	MSB61848 femur	Total/NA	Tissue	SHAKE	802923
320-115443-23	MSB89196 femur	Total/NA	Tissue	SHAKE	802923
320-115443-24	MSB87701 femur	Total/NA	Tissue	SHAKE	802923
320-115443-25	MSB87702 femur	Total/NA	Tissue	SHAKE	802923
320-115443-26	MSB89195 femur	Total/NA	Tissue	SHAKE	802923
320-115443-27	MSB61849 femur	Total/NA	Tissue	SHAKE	802923
MB 320-803280/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-803280/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-803280/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

### Analysis Batch: 803965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-115443-16	MSBHerp109299 liver	Total/NA	Tissue	B/L/T PFAS	803280
320-115443-17	NK319555 muscle	Total/NA	Tissue	B/L/T PFAS	803280
320-115443-18	NK319556 muscle	Total/NA	Tissue	B/L/T PFAS	803280
320-115443-19	NK319556 liver	Total/NA	Tissue	B/L/T PFAS	803280
320-115443-20	MSB89187 femur	Total/NA	Tissue	B/L/T PFAS	803280
320-115443-21	MSB92667 femur	Total/NA	Tissue	B/L/T PFAS	803280
320-115443-22	MSB61848 femur	Total/NA	Tissue	B/L/T PFAS	803280
320-115443-23	MSB89196 femur	Total/NA	Tissue	B/L/T PFAS	803280
320-115443-24	MSB87701 femur	Total/NA	Tissue	B/L/T PFAS	803280
320-115443-25	MSB87702 femur	Total/NA	Tissue	B/L/T PFAS	803280
320-115443-26	MSB89195 femur	Total/NA	Tissue	B/L/T PFAS	803280
320-115443-27	MSB61849 femur	Total/NA	Tissue	B/L/T PFAS	803280
MB 320-803280/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	803280
LCS 320-803280/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	803280
LCSD 320-803280/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	803280

### Analysis Batch: 804303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-115443-2 - RA	NK284445 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-10 - RA	NK284463 eggshell + contents	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-11 - RA	African Rue East Intake	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-12 - RA	Saltcedar East Intake	Total/NA	Tissue	B/L/T PFAS	802924

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# QC Association Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## LCMS (Continued)

### Analysis Batch: 804303 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-115443-13	Saltcedar NE 4-1	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-14 - RA	pickleweed NE 4-1	Total/NA	Tissue	B/L/T PFAS	802924

### Analysis Batch: 804573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-115443-16 - DL	MSBHerp109299 liver	Total/NA	Tissue	B/L/T PFAS	803280
320-115443-17 - DL	NK319555 muscle	Total/NA	Tissue	B/L/T PFAS	803280

### Analysis Batch: 806065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-115443-1 - DL	NK284441 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-2 - DL	NK284445 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-2	NK284445 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-3 - DL	NK284446 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-4	NK284447 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-5	NK284448 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-6	NK284449 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-7 - DL	NK284450 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-7	NK284450 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-8	NK284451 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-9	NK284458 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-10 - DL	NK284463 eggshell + contents	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-10	NK284463 eggshell + contents	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-11	African Rue East Intake	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-12 - DL	Saltcedar East Intake	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-12	Saltcedar East Intake	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-13 - DL2	Saltcedar NE 4-1	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-13 - DL	Saltcedar NE 4-1	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-14	pickleweed NE 4-1	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-15 - DL	MSBHerp109299 muscle	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-15	MSBHerp109299 muscle	Total/NA	Tissue	B/L/T PFAS	802924
MB 320-802924/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	802924
LCS 320-802924/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	802924
LCSD 320-802924/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	802924

### Analysis Batch: 806827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-115443-1	NK284441 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-3	NK284446 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-5 - DL	NK284448 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-6 - DL	NK284449 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-8 - DL	NK284451 liver	Total/NA	Tissue	B/L/T PFAS	802924
320-115443-14 - DL	pickleweed NE 4-1	Total/NA	Tissue	B/L/T PFAS	802924

### Analysis Batch: 807049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-115443-4 - RA	NK284447 liver	Total/NA	Tissue	B/L/T PFAS	802924

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284441 liver**  
**Date Collected: 07/11/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-1**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE	DL		0.40 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	806065	10/10/24 21:12	S1C	EET SAC
Total/NA	Prep	SHAKE			0.40 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		5	1 mL	1 mL	806827	10/14/24 16:23	S1C	EET SAC

**Client Sample ID: NK284445 liver**  
**Date Collected: 07/11/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-2**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE	RA		0.17 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	804303	10/04/24 23:03	S1C	EET SAC
Total/NA	Prep	SHAKE	DL		0.17 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	806065	10/10/24 21:51	S1C	EET SAC
Total/NA	Prep	SHAKE			0.17 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	806065	10/10/24 22:10	S1C	EET SAC

**Client Sample ID: NK284446 liver**  
**Date Collected: 07/11/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-3**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE	DL		0.45 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	50	1 mL	1 mL	806065	10/10/24 22:30	S1C	EET SAC
Total/NA	Prep	SHAKE			0.45 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		10	1 mL	1 mL	806827	10/14/24 16:42	S1C	EET SAC

**Client Sample ID: NK284447 liver**  
**Date Collected: 07/11/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-4**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE	RA		0.17 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	807049	10/15/24 10:47	GWO	EET SAC
Total/NA	Prep	SHAKE			0.17 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	806065	10/10/24 23:47	S1C	EET SAC

**Client Sample ID: NK284448 liver**  
**Date Collected: 07/11/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-5**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			0.56 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	806065	10/11/24 00:26	S1C	EET SAC
Total/NA	Prep	SHAKE	DL		0.56 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	20	1 mL	1 mL	806827	10/14/24 17:21	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK284449 liver**  
Date Collected: 07/11/24 00:00  
Date Received: 09/17/24 09:40

**Lab Sample ID: 320-115443-6**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			0.08 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	806065	10/11/24 01:05	S1C	EET SAC
Total/NA	Prep	SHAKE	DL		0.08 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	806827	10/14/24 17:40	S1C	EET SAC

**Client Sample ID: NK284450 liver**  
Date Collected: 07/11/24 00:00  
Date Received: 09/17/24 09:40

**Lab Sample ID: 320-115443-7**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE	DL		0.16 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	806065	10/11/24 01:24	S1C	EET SAC
Total/NA	Prep	SHAKE			0.16 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	806065	10/11/24 01:44	S1C	EET SAC

**Client Sample ID: NK284451 liver**  
Date Collected: 07/11/24 00:00  
Date Received: 09/17/24 09:40

**Lab Sample ID: 320-115443-8**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			0.06 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	806065	10/11/24 02:23	S1C	EET SAC
Total/NA	Prep	SHAKE	DL		0.06 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	806827	10/14/24 18:00	S1C	EET SAC

**Client Sample ID: NK284458 liver**  
Date Collected: 07/11/24 00:00  
Date Received: 09/17/24 09:40

**Lab Sample ID: 320-115443-9**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.27 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	806065	10/11/24 03:21	S1C	EET SAC

**Client Sample ID: NK284463 eggshell + contents**  
Date Collected: 07/11/24 00:00  
Date Received: 09/17/24 09:40

**Lab Sample ID: 320-115443-10**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	802923	09/28/24 06:34	ATB	EET SAC
Total/NA	Prep	SHAKE	RA		1.02 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	804303	10/05/24 01:58	S1C	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	802923	09/28/24 06:34	ATB	EET SAC
Total/NA	Prep	SHAKE	DL		1.02 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	806065	10/11/24 03:40	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## **Client Sample ID: NK284463 eggshell + contents**

## **Lab Sample ID: 320-115443-10**

**Matrix: Tissue**

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:34	ATB	EET SAC
Total/NA	Prep	SHAKE			1.02 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	806065	10/11/24 04:00	S1C	EET SAC

## **Client Sample ID: African Rue East Intake**

## **Lab Sample ID: 320-115443-11**

**Matrix: Tissue**

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE	RA		0.89 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	804303	10/05/24 02:17	S1C	EET SAC
Total/NA	Prep	SHAKE			0.89 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	806065	10/11/24 04:39	S1C	EET SAC

## **Client Sample ID: Saltcedar East Intake**

## **Lab Sample ID: 320-115443-12**

**Matrix: Tissue**

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE	RA		0.91 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	804303	10/05/24 02:37	S1C	EET SAC
Total/NA	Prep	SHAKE	DL		0.91 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	20	1 mL	1 mL	806065	10/11/24 04:58	S1C	EET SAC
Total/NA	Prep	SHAKE			0.91 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	806065	10/11/24 05:17	S1C	EET SAC

## **Client Sample ID: Saltcedar NE 4-1**

## **Lab Sample ID: 320-115443-13**

**Matrix: Tissue**

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			0.59 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	804303	10/05/24 02:56	S1C	EET SAC
Total/NA	Prep	SHAKE	DL2		0.59 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL2	100	1 mL	1 mL	806065	10/11/24 05:37	S1C	EET SAC
Total/NA	Prep	SHAKE	DL		0.59 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	806065	10/11/24 05:56	S1C	EET SAC

## **Client Sample ID: pickleweed NE 4-1**

## **Lab Sample ID: 320-115443-14**

**Matrix: Tissue**

Date Collected: 07/11/24 00:00

Date Received: 09/17/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE	RA		1.01 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	804303	10/05/24 03:15	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: pickleweed NE 4-1**  
**Date Collected: 07/11/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-14**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.01 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	806065	10/11/24 06:54	S1C	EET SAC
Total/NA	Prep	SHAKE	DL		1.01 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	20	1 mL	1 mL	806827	10/14/24 18:38	S1C	EET SAC

**Client Sample ID: MSBHerp109299 muscle**

**Lab Sample ID: 320-115443-15**  
**Matrix: Tissue**

**Date Collected: 09/11/24 00:00**  
**Date Received: 09/17/24 09:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE	DL		0.88 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	806065	10/11/24 07:14	S1C	EET SAC
Total/NA	Prep	SHAKE			0.88 g	10.0 mL	802924	09/28/24 06:38	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	806065	10/11/24 07:33	S1C	EET SAC

**Client Sample ID: MSBHerp109299 liver**

**Lab Sample ID: 320-115443-16**  
**Matrix: Tissue**

**Date Collected: 09/11/24 00:00**  
**Date Received: 09/17/24 09:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:34	ATB	EET SAC
Total/NA	Prep	SHAKE			0.18 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	803965	10/03/24 05:49	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	802923	09/28/24 06:34	ATB	EET SAC
Total/NA	Prep	SHAKE	DL		0.18 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	804573	10/05/24 05:12	S1C	EET SAC

**Client Sample ID: NK319555 muscle**

**Lab Sample ID: 320-115443-17**  
**Matrix: Tissue**

**Date Collected: 09/12/24 00:00**  
**Date Received: 09/17/24 09:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:34	ATB	EET SAC
Total/NA	Prep	SHAKE			0.88 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	803965	10/03/24 06:08	C1P	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	802923	09/28/24 06:34	ATB	EET SAC
Total/NA	Prep	SHAKE	DL		0.88 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	10	1 mL	1 mL	804573	10/05/24 05:31	S1C	EET SAC

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: NK319556 muscle**  
**Date Collected: 09/13/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-18**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:34	ATB	EET SAC
Total/NA	Prep	SHAKE			1.31 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	803965	10/03/24 06:28	C1P	EET SAC

**Client Sample ID: NK319556 liver**  
**Date Collected: 09/14/24 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-19**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:43	ATB	EET SAC
Total/NA	Prep	SHAKE			1.40 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	803965	10/03/24 06:47	C1P	EET SAC

**Client Sample ID: MSB89187 femur**  
**Date Collected: 11/28/94 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-20**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:43	ATB	EET SAC
Total/NA	Prep	SHAKE			0.21 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	803965	10/03/24 07:07	C1P	EET SAC

**Client Sample ID: MSB92667 femur**  
**Date Collected: 08/16/94 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-21**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:43	ATB	EET SAC
Total/NA	Prep	SHAKE			0.03 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	803965	10/03/24 07:26	C1P	EET SAC

**Client Sample ID: MSB61848 femur**  
**Date Collected: 05/11/89 00:00**  
**Date Received: 09/17/24 09:40**

**Lab Sample ID: 320-115443-22**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:43	ATB	EET SAC
Total/NA	Prep	SHAKE			0.04 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	803965	10/03/24 07:45	C1P	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

**Client Sample ID: MSB89196 femur**  
Date Collected: 11/27/94 00:00  
Date Received: 09/17/24 09:40

**Lab Sample ID: 320-115443-23**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:43	ATB	EET SAC
Total/NA	Prep	SHAKE			0.04 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	803965	10/03/24 08:24	C1P	EET SAC

**Client Sample ID: MSB87701 femur**  
Date Collected: 11/26/94 00:00  
Date Received: 09/17/24 09:40

**Lab Sample ID: 320-115443-24**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:43	ATB	EET SAC
Total/NA	Prep	SHAKE			0.48 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	803965	10/03/24 08:44	C1P	EET SAC

**Client Sample ID: MSB87702 femur**  
Date Collected: 11/27/94 00:00  
Date Received: 09/17/24 09:40

**Lab Sample ID: 320-115443-25**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:43	ATB	EET SAC
Total/NA	Prep	SHAKE			0.42 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	803965	10/03/24 09:03	C1P	EET SAC

**Client Sample ID: MSB89195 femur**  
Date Collected: 11/07/94 00:00  
Date Received: 09/17/24 09:40

**Lab Sample ID: 320-115443-26**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:43	ATB	EET SAC
Total/NA	Prep	SHAKE			0.09 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	803965	10/03/24 09:23	C1P	EET SAC

**Client Sample ID: MSB61849 femur**  
Date Collected: 05/11/89 00:00  
Date Received: 09/17/24 09:40

**Lab Sample ID: 320-115443-27**  
Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	802923	09/28/24 06:43	ATB	EET SAC
Total/NA	Prep	SHAKE			0.06 g	10.0 mL	803280	09/30/24 13:29	ERR	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	803965	10/03/24 09:42	C1P	EET SAC

## Laboratory References:

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

Eurofins Sacramento

# Accreditation/Certification Summary

Client: University of New Mexico

Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

## Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468	01-20-27
Arizona	State	AZ0708	08-11-25
Arkansas DEQ	State	88-0691	05-18-25
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-25
Florida	NELAP	E87570	06-30-25
Georgia	State	4040	01-29-25
Hawaii	State	Eurofins Sacramento	01-29-25
Illinois	NELAP	200060	03-31-25
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-25
Louisiana (All)	NELAP	01944	06-30-25
Maine	State	CA00004	04-14-26
Michigan	State	9947	01-29-25
Minnesota	NELAP	2749448	12-31-24
Nevada	State	CA00044	07-31-25
New Hampshire	NELAP	2997	04-19-25
New Jersey	NELAP	CA005	06-30-25
New York	NELAP	11666	04-01-25
Ohio	State	41252	01-29-25
Oregon	NELAP	4040	01-29-25
Texas	NELAP	T104704399-23-17	05-31-25
US Fish & Wildlife	US Federal Programs	A22139	04-30-25
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-25
Virginia	NELAP	460278	03-14-25
Washington	State	C581	05-05-25
West Virginia (DW)	State	9930C	01-31-25
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

## Method Summary

Client: University of New Mexico  
Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

Method	Method Description	Protocol	Laboratory
B/L/T PFAS	Branched, Linear and Total PFAS	EPA	EET SAC
In-House	Tissue Preparation/Homogenization	NOAA	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

### Protocol References:

EPA = US Environmental Protection Agency

NOAA = National Marine Fisheries Service, National Oceanic And Atmospheric Administration, Seattle, WA, November 1988

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

### Laboratory References:

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

# Sample Summary

Client: University of New Mexico  
 Project/Site: Holloman Lake PFAS Research

Job ID: 320-115443-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
320-115443-1	NK284441 liver	Tissue	07/11/24 00:00	09/17/24 09:40	1
320-115443-2	NK284445 liver	Tissue	07/11/24 00:00	09/17/24 09:40	2
320-115443-3	NK284446 liver	Tissue	07/11/24 00:00	09/17/24 09:40	3
320-115443-4	NK284447 liver	Tissue	07/11/24 00:00	09/17/24 09:40	4
320-115443-5	NK284448 liver	Tissue	07/11/24 00:00	09/17/24 09:40	5
320-115443-6	NK284449 liver	Tissue	07/11/24 00:00	09/17/24 09:40	6
320-115443-7	NK284450 liver	Tissue	07/11/24 00:00	09/17/24 09:40	7
320-115443-8	NK284451 liver	Tissue	07/11/24 00:00	09/17/24 09:40	8
320-115443-9	NK284458 liver	Tissue	07/11/24 00:00	09/17/24 09:40	9
320-115443-10	NK284463 eggshell + contents	Tissue	07/11/24 00:00	09/17/24 09:40	10
320-115443-11	African Rue East Intake	Tissue	07/11/24 00:00	09/17/24 09:40	11
320-115443-12	Saltcedar East Intake	Tissue	07/11/24 00:00	09/17/24 09:40	12
320-115443-13	Saltcedar NE 4-1	Tissue	07/11/24 00:00	09/17/24 09:40	13
320-115443-14	pickleweed NE 4-1	Tissue	07/11/24 00:00	09/17/24 09:40	14
320-115443-15	MSBHerp109299 muscle	Tissue	09/11/24 00:00	09/17/24 09:40	
320-115443-16	MSBHerp109299 liver	Tissue	09/11/24 00:00	09/17/24 09:40	
320-115443-17	NK319555 muscle	Tissue	09/12/24 00:00	09/17/24 09:40	
320-115443-18	NK319556 muscle	Tissue	09/13/24 00:00	09/17/24 09:40	
320-115443-19	NK319556 liver	Tissue	09/14/24 00:00	09/17/24 09:40	
320-115443-20	MSB89187 femur	Tissue	11/28/94 00:00	09/17/24 09:40	
320-115443-21	MSB92667 femur	Tissue	08/16/94 00:00	09/17/24 09:40	
320-115443-22	MSB61848 femur	Tissue	05/11/89 00:00	09/17/24 09:40	
320-115443-23	MSB89196 femur	Tissue	11/27/94 00:00	09/17/24 09:40	
320-115443-24	MSB87701 femur	Tissue	11/26/94 00:00	09/17/24 09:40	
320-115443-25	MSB87702 femur	Tissue	11/27/94 00:00	09/17/24 09:40	
320-115443-26	MSB89195 femur	Tissue	11/07/94 00:00	09/17/24 09:40	
320-115443-27	MSB61849 femur	Tissue	05/11/89 00:00	09/17/24 09:40	



320-115443 Chain of Custody

**Eurofins Env Testing Northern California**  
880 Riverside Parkway  
West Sacramento, CA 95605  
Phone: 916 373 5600

### Chain of Custody Record

eurofins

Environment Testing,  
America

Client Contact	Report To Jean-Luc Carton		Site Contact:		Date 9/13/2024		COC No: of COCs
	email: jcarton@geo-logic.com, jlcc@umim.edu	Lab Contact: Linda Laver	Carrier: FedEx	Job No			
Daniel B Stephens & Associates 6020 Academy Road NE, Suite 100 Albuquerque/NM/87109-3315 Phone 505-822-9400 Tel Project Name Holloman Lake PFAS Research Site Holloman Lake, Otero Co, New Mexico P O #	Analysis Turnaround Time  Business Days (BD)		TAT if different from above  <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day	Filter Sample Enter requested analysis in these fields			Field Sampler
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes	
NK284441 liver	7/11/24		liver		1	wetland directly north of Holloman	
NK284445 liver	7/11/24		liver		1	wetland directly north of Holloman	
NK284446 liver	7/11/24		liver		1	wetland directly north of Holloman	
NK284447 liver	7/11/24		liver		1	wetland directly north of Holloman	
NK284448 liver	7/11/24		liver		1	wetland directly north of Holloman	
NK284449 liver	7/11/24		liver		1	wetland directly north of Holloman	
NK284450 liver	7/11/24		liver		1	wetland directly north of Holloman	
NK284451 liver	7/11/24		liver		1	wetland directly north of Holloman	
NK284458 liver	7/11/24		liver		1	wetland directly north of Holloman	
NK284463 eggshell + contents	7/11/24		egg		1	Holloman Lake	
African Rue East Intake	7/11/24		plant		1	east intake	
Saltcedar East Intake	7/11/24		plant		1	east intake	
Saltcedar NE 4-I	7/11/24		plant		1	NE 4-I	
pickleweed NE 4-I	7/11/24		plant		1	NE 4-I	
MSBIIterp109299 muscle	9/11/24		muscl		1	US-70 by Holloman Lake turnout	
MSBIIterp109299 liver	9/11/24		liver		1	US 70 by Holloman Lake turnout	
NK319555 muscle	9/12/24		muscle		1	0.64 km East of Holloman Lake access on highway 70	
NK319556 muscle	9/13/24		muscle		1	12.66 km East of Holloman Lake access on highway 70	
NK319556 liver	9/14/24		liver		1	12.66 km East of Holloman Lake access on highway 70	
MSB89187 femur	11/28/94		femur		1	HOLLOMAN AFB, S OF WSMR RNG RD 10 ALONG E DUNE EDGE	
MSB92667 femur	8/16/94		femur		1	Holloman AFB, lagoon G, 3.7 mi W of Main Gate on Hwy 70	
MSB61848 femur	5/11/89		femur		1	WHITE SANDS MISSILE RANGE, 1 MI. N. RITA SITE EXIT	
MSB89196 femur	11/27/94		femur		1	HOLLOMAN AFB, E of MUNITIONS AREA, T16 S R8 E SEC36 SW4SW4	
MSB7701 femur	11/26/94		femur		1	(Holloman AFB, N of WSMR Rng Rd. 10, along E dune edge T16S R8E see 31)	
MSB87702 femur	11/27/94		femur		1	Holloman AFB, E of Munitions Area on Base; T16S R8E see 36 SW 4 SW 4	
MSB89195 femur	11/7/94		femur		1	HOLLOMAN AFB T15 S R8 E SEC23	
MSB61849 femur	5/11/89		femur		1	WHITE SANDS MISSILE RANGE, 1 MI. N. RITA SITE EXIT	

Preservation Used: 1= Ice, 2= HCl; 3= H<sub>2</sub>SO<sub>4</sub>; 4= HNO<sub>3</sub>; 5= NaOH; 6= Other

Possible Hazard Identification

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements & Comments

Relinquished by: Jean-Luc Carton	Company: DBS&A	Date/Time: 7/17/24	Received by: <i>DSM</i>	Company: ETSAC	Date/Time: 09/17/24 0940
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

- 34.2



## Environment Testing

Sacramento Sample  
Receiving Notes (SSRN)

Loc 320

115443

Tracking # 7784 101022334

Job \_\_\_\_\_

SO  PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
GSL / OnTrac / Goldstreak / USPS / Other \_\_\_\_\_

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.  
File in the job folder with the COC

<p>Therm. ID: <u>L010</u> Corr. Factor (+/-) <u>NA</u> °C            Ice <input type="checkbox"/> Wet <input type="checkbox"/> Gel <input type="checkbox"/> Other <input checked="" type="checkbox"/></p> <p>Cooler Custody Seal: _____</p> <p>Cooler ID: _____</p> <p>Temp Observed <u>-34.2</u> °C Corrected <u>-34.2</u> °C            From Temp Blank <input type="checkbox"/> Sample <input checked="" type="checkbox"/></p> <p><b>Opening/Processing The Shipment</b></p> <table> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> <th>NA</th> </tr> </thead> <tbody> <tr> <td>Cooler compromised/tampered with?</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Cooler Temperature is acceptable?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Frozen samples show signs of thaw?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table> <p>Initials: <u>DM</u> Date <u>09/17/24</u></p> <p><b>Unpacking/Labeling The Samples</b></p> <table> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> <th>NA</th> </tr> </thead> <tbody> <tr> <td>Containers are not broken or leaking?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Samples compromised/tampered with?</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>COC is complete w/o discrepancies</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Sample custody seal?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Sample containers have legible labels?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Sample date/times are provided?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Appropriate containers are used?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Sample bottles are completely filled?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Sample preservatives verified?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Is the Field Sampler's name on COC?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Samples w/o discrepancies?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Zero headspace?*</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Alkalinity has no headspace?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Perchlorate has headspace? (Methods 314, 331, 6850)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Multiphasic samples are not present?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <p>*Containers requiring zero headspace have no headspace, or bubble &lt; 6 mm (1/4")</p> <p>Initials <u>DM</u> Date <u>09/17/24</u></p>		Yes	No	NA	Cooler compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cooler Temperature is acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Frozen samples show signs of thaw?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Yes	No	NA	Containers are not broken or leaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	COC is complete w/o discrepancies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample custody seal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sample containers have legible labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample date/times are provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate containers are used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample bottles are completely filled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample preservatives verified?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is the Field Sampler's name on COC?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Samples w/o discrepancies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Zero headspace?*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Alkalinity has no headspace?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Perchlorate has headspace? (Methods 314, 331, 6850)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Multiphasic samples are not present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Notes: <u>Dry ice</u> <u>Analysis is not listed</u> <u>on the COC.</u></p> <p>Trizma Lot #(s) _____ Ammonium _____ Acetate Lot #(s) _____</p> <p><b>Login Completion</b></p> <table> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> <th>NA</th> </tr> </thead> <tbody> <tr> <td>Receipt Temperature on COC?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>NCM Filed?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Samples received within hold time?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Log Release checked in TALS?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <p>Initials <u>DM</u> Date <u>09/17/24</u></p>		Yes	No	NA	Receipt Temperature on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NCM Filed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Log Release checked in TALS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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# ANALYTICAL REPORT

## PREPARED FOR

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## JOB DESCRIPTION

UNM\_PFAS in Tissue, Holloman

## JOB NUMBER

320-117508-1

# Eurofins Sacramento

## Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northern California, LLC Project Manager.

## Authorization



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# Definitions/Glossary

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Qualifiers

LCMS	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
E	Result exceeded calibration range.
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.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%	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

# Case Narrative

Client: University of New Mexico  
Project: UNM\_PFAS in Tissue, Holloman

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**Job ID: 320-117508-1**

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## Job Narrative 320-117508-1

### Receipt

The samples were received on 12/5/2024 9:35 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -12.3° C.

### Receipt Exceptions

Collection times were not provided. Samples were logged in with a default time of 00:00.

The sample ID listed on the container label for the following sample did not match the information listed on the Chain-of-Custody (COC). The ID on the container was "NK283664" but the COC has "NK283644". The rest of the ID did match. The sample was logged in based on the COC. NK283644, S. clypeata, Liver, MSB1011744, P48 (320-117508-45)

### LCMS

Method B/L/T PFAS: Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for all samples. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method B/L/T PFAS: Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: NK35935, MSB39605, P17 (320-117508-16). Generally, data quality is not considered affected if the signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s).

Method B/L/T PFAS: The "I" qualifier means the transition mass ratio for the indicated analyte was outside the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty.

Method B/L/T PFAS: Internal standard (ISTD) response for sample NK35811, MSB30651, P8 (320-117508-8) in analytical batch 320-821391 was outside acceptance criteria. The internal standard is not used to quantitate any target analytes, therefore, the data have been reported

Method B/L/T PFAS: The concentration of one or more analytes associated with multiple samples exceeded the instrument calibration range. These analytes have been qualified (E); however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

Method B/L/T PFAS: Some results for multiple samples were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method B/L/T PFAS: One or more continuing calibration verification (CCV) aliquots associated with analytical batches 320-820819 and 320-821645 recovered above the upper control limit for 8:2 FTS. The client samples associated with these CCVs were non-detect for the affected analyte; therefore, the data have been reported.

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

### Organic Prep

Method SHAKE: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batches 320-820080, 320-820824 and 320-820977.

Method SHAKE: Elevated reporting limits are provided for the following samples due to limited sample provided for extraction: Pool 25, Duck PFAS, P25 (320-117508-23), NK282630, MSB50169, P26 (320-117508-24), NK276851, MSB46239, P28 (320-117508-25), NK276660, MSB45963, P30 (320-117508-27), NK282696, MSB50223, P31 (320-117508-28) and NK283629, S. calyptatea, Liver, MSB1011446, P44 (320-117508-41).

Method SHAKE: The following samples were discolored prior to and/or following extraction: NK14474, MSB18488, Pool1, P1 (320-117508-1), NK9098, Liver, P2 (320-117508-2), NK2445, Liver, AFP7B, P3 (320-117508-3), NK2444, Liver, AFP7A, P4 (320-117508-4), NK35660, MSB29117, P5 (320-117508-5), NK35661, MSB29140, P6 (320-117508-6), NK35655, MSB29134, P7 (320-117508-7), NK35811, MSB30651, P8 (320-117508-8), NK35643, MSB29100, P9 (320-117508-9), NK170946, P10 (320-117508-10), NK165232, MSB26431, P12 (320-117508-12), NK100328, Liver, AEP1R, P11 (320-117508-11), NK35676, MSB29118, P14 (320-117508-13), NK35678, MSB29131, P15 (320-117508-14), NK35669, MSB29093, P16 (320-117508-15), NK35935, MSB39605, P17 (320-117508-16), NK35958, MSB40165, P18 (320-117508-17), NK35816, MSB30670, P19 (320-117508-18), NK35804, MSB30716, P20 (320-117508-19), NK35876, MSB39746, P22 (320-117508-20), NK35910, MSB39349, P23(320-117508-21), NK282630, MSB50169, P26 (320-117508-24), NK282547, MSB49842, P29 (320-117508-26),

## Case Narrative

Client: University of New Mexico  
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### Job ID: 320-117508-1 (Continued)

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NK282696, MSB50223, P31 (320-117508-28), NK283601, Spat. Cly, Liver, ABJ34298, MSB1011285, P32 (320-117508-29), NK283605, Liver, Spatula, MSB1011318, P34 (320-117508-31), NK283606, Spatula, Liver, MSB1011339, P35 (320-117508-32), NK283607, S. calypteata, Liver, MSB1011310, P36 (320-117508-33), NK283608, S. calypteata, L, MSB1011324, P37 (320-117508-34), NK283615, S. calypteata, L, MSB1011402, P38 (320-117508-35), NK283619, S. calypteata, L, MSB1011416, P39 (320-117508-36), NK283621, S. calypteata, L, MSB1011430, P40 (320-117508-37), NK283622, L, S. calypteata, MSB1011451, P41 (320-117508-38) and NK283626, S. calypteata, L, MSB1011466, P42 (320-117508-39).

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

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# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## **Client Sample ID: NK14474, MSB18488, Pool1, P1**

## **Lab Sample ID: 320-117508-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	0.58	J	1.0	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.58	J	1.0	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	3.5		1.0	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	4.1		1.0	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.0		1.0	0.28	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.16	J	1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	3.0		1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	2.9		1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.7		1.0	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	1000	E I	2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	28		2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1100		2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.14	J	1.0	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS - RA	0.30	J	1.0	0.10	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: NK9098, Liver, P2**

## **Lab Sample ID: 320-117508-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanesulfonic acid	66	I	2.1	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	0.75	J	2.1	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	67		2.1	0.17	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: NK2445, Liver, AFP7B, P3**

## **Lab Sample ID: 320-117508-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	4.4		0.93	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.6		0.93	0.095	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	3.0		0.93	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	3.0		0.93	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	2.1		0.93	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	420	E I	2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	17		2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	440		2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: NK2444, Liver, AFP7A, P4**

## **Lab Sample ID: 320-117508-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	0.67	J	0.96	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.30	J	0.96	0.099	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	530	E I	2.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	1.4	J	2.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	530		2.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: NK35660, MSB29117, P5**

## **Lab Sample ID: 320-117508-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	0.37	J	0.96	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.24	J	0.96	0.099	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.27	J	0.96	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.27	J	0.96	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	640	E I	2.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Client Sample ID: NK35660, MSB29117, P5 (Continued)

## Lab Sample ID: 320-117508-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Br-Perfluorooctanesulfonic acid	0.45	J	2.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	650		2.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.15	J	0.96	0.097	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK35661, MSB29140, P6

## Lab Sample ID: 320-117508-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanoic acid	0.72	J	0.97	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.72	J	0.97	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	6.4		0.97	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	3.8		0.97	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.4		0.97	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.27	J	0.97	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	3.7		0.97	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	3.5		0.97	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.3		0.97	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	1000	E I	2.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	15		2.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	1000		2.4	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.35	J	0.97	0.098	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS - RA	0.43	J	0.97	0.097	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK35655, MSB29134, P7

## Lab Sample ID: 320-117508-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorooctanoic acid	0.46	J	0.99	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.46	J	0.99	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	15		0.99	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	20		0.99	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	9.5		0.99	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.35	J	0.99	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.35	J	0.99	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.43	J	0.99	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	570	E I	2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	7.5		2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	580		2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.72	J	0.99	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS - RA	0.41	J	0.99	0.099	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK35811, MSB30651, P8

## Lab Sample ID: 320-117508-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	7.8		0.94	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	9.5		0.94	0.097	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	4.3		0.94	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.18	J	0.94	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.18	J	0.94	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.23	J	0.94	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	250	E I	2.4	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	7.7		2.4	0.19	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Client Sample ID: NK35811, MSB30651, P8 (Continued)

## Lab Sample ID: 320-117508-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total PFOS	250		2.4	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.21	J	0.94	0.095	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS - RA	0.095	J	0.94	0.094	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK35643, MSB29100, P9

## Lab Sample ID: 320-117508-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	0.33	J	0.93	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.33	J	0.93	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	16		0.93	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	9.6		0.93	0.095	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.5		0.93	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	1.1		0.93	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	1.1		0.93	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.3		0.93	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	330	E I	2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	15		2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	350		2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.32	J	0.93	0.093	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.25	J	0.93	0.094	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK170946, P10

## Lab Sample ID: 320-117508-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanesulfonic acid	960	E I	2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	0.21	J	2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	960		2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK100328, Liver, AEPIR, P11

## Lab Sample ID: 320-117508-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanesulfonic acid	2.6	I	2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	2.6		2.6	0.21	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK165232, MSB26431, P12

## Lab Sample ID: 320-117508-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	1.9		1.2	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	1.9		1.2	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	12		1.2	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	6.9		1.2	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	4.7		1.2	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.17	J	1.2	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	1.4		1.2	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	1.3		1.2	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.53	J	1.2	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	260	E I	2.9	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	14		2.9	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	280		2.9	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.12	J	1.2	0.12	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## **Client Sample ID: NK35676, MSB29118, P14**

## **Lab Sample ID: 320-117508-13**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	0.58	J	1.0	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.58	J	1.0	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	6.1		1.0	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	4.4		1.0	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.89	J	1.0	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	1.7		1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	1.7		1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.39	J	1.0	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	630	E I	2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	8.7		2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	640		2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.17	J	1.0	0.10	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: NK35678, MSB29131, P15**

## **Lab Sample ID: 320-117508-14**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	1.6		0.98	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	1.3		0.98	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.63	J	0.98	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.25	J	0.98	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.25	J	0.98	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	570	E I	2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	1.5	J	2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	570		2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.17	J	0.98	0.099	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS - RA	0.12	J	0.98	0.098	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: NK35669, MSB29093, P16**

## **Lab Sample ID: 320-117508-15**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	0.34	J	1.0	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.34	J	1.0	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	6.8		1.0	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	5.1		1.0	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.5		1.0	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.79	J	1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.79	J	1.0	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.33	J	1.0	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	340	E I	2.5	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	4.3		2.5	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	340		2.5	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.27	J	1.0	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS - RA	0.14	J	1.0	0.10	ug/Kg	1		B/L/T PFAS	Total/NA

## **Client Sample ID: NK35935, MSB39605, P17**

## **Lab Sample ID: 320-117508-16**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	15		0.99	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	54		0.99	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	19		0.99	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	1.8		0.99	0.15	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Client Sample ID: NK35935, MSB39605, P17 (Continued)

## Lab Sample ID: 320-117508-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluorohexanesulfonic acid	1.8		0.99	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.9		0.99	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	710	E	2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	38		2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	750		2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.12	J	0.99	0.10	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK35958, MSB40165, P18

## Lab Sample ID: 320-117508-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanesulfonic acid	260	E I	2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	260		2.5	0.20	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK35816, MSB30670, P19

## Lab Sample ID: 320-117508-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	0.20	J	0.51	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.20	J	0.51	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	5.2		0.51	0.089	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	4.6		0.51	0.053	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.4		0.51	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	0.22	J	0.51	0.076	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	0.22	J	0.51	0.076	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.27	J	0.51	0.094	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	330	E I	1.3	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	4.3		1.3	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	330		1.3	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.062	J	0.51	0.051	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.13	J	0.51	0.052	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK35804, MSB30716, P20

## Lab Sample ID: 320-117508-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	0.33	J	0.93	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.33	J	0.93	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	13		0.93	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	14		0.93	0.096	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.0		0.93	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	0.42	J	0.93	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFHxS	5.3		0.93	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	4.9		0.93	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.4		0.93	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	490	E I	2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	26		2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	510		2.3	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	0.58	J	0.93	0.093	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.34	J	0.93	0.094	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## **Client Sample ID: NK35876, MSB39746, P22**

## **Lab Sample ID: 320-117508-20**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	0.27	J	1.0	0.20	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFOA	0.27	J	1.0	0.20	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluoronanoic acid (PFNA)	3.9		1.0	0.18	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluorodecanoic acid (PFDA)	1.0		1.0	0.10	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluoroundecanoic acid (PFUnA)	0.34	J	1.0	0.27	ug/Kg	1	B/L/T PFAS	Total/NA	
L-Perfluoroctanesulfonic acid	620	E I	2.5	0.21	ug/Kg	1	B/L/T PFAS	Total/NA	
Br-Perfluoroctanesulfonic acid	0.76	J	2.5	0.21	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFOS	620		2.5	0.21	ug/Kg	1	B/L/T PFAS	Total/NA	

## **Client Sample ID: NK35910, MSB39349, P23**

## **Lab Sample ID: 320-117508-21**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoronanoic acid (PFNA)	5.0		1.0	0.18	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluorodecanoic acid (PFDA)	1.5		1.0	0.11	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluoroundecanoic acid (PFUnA)	0.54	J	1.0	0.28	ug/Kg	1	B/L/T PFAS	Total/NA	
Br-Perfluorohexanesulfonic acid	0.36	J	1.0	0.15	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFHxS	0.47	J	1.0	0.15	ug/Kg	1	B/L/T PFAS	Total/NA	
L-Perfluoroctanesulfonic acid	350	E I	2.6	0.21	ug/Kg	1	B/L/T PFAS	Total/NA	
Br-Perfluoroctanesulfonic acid	1.6	J	2.6	0.21	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFOS	350		2.6	0.21	ug/Kg	1	B/L/T PFAS	Total/NA	
10:2 FTS	0.10	J	1.0	0.10	ug/Kg	1	B/L/T PFAS	Total/NA	

## **Client Sample ID: NK35817, MSB30650, P24**

## **Lab Sample ID: 320-117508-22**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoronanoic acid (PFNA)	2.9		1.1	0.18	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluorodecanoic acid (PFDA)	2.9		1.1	0.11	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluoroundecanoic acid (PFUnA)	0.77	J	1.1	0.29	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFHxS	0.22	J	1.1	0.16	ug/Kg	1	B/L/T PFAS	Total/NA	
L-Perfluorohexanesulfonic acid	0.22	J	1.1	0.16	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluoroheptanesulfonic acid (PFHps)	0.20	J	1.1	0.19	ug/Kg	1	B/L/T PFAS	Total/NA	
L-Perfluoroctanesulfonic acid	540	E I	2.6	0.21	ug/Kg	1	B/L/T PFAS	Total/NA	
Br-Perfluoroctanesulfonic acid	3.5		2.6	0.21	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFOS	540		2.6	0.21	ug/Kg	1	B/L/T PFAS	Total/NA	
10:2 FTS	0.13	J	1.1	0.11	ug/Kg	1	B/L/T PFAS	Total/NA	

## **Client Sample ID: Pool 25, Duck PFAS, P25**

## **Lab Sample ID: 320-117508-23**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoronanoic acid (PFNA)	0.30	J	1.1	0.20	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluorodecanoic acid (PFDA)	0.36	J	1.1	0.12	ug/Kg	1	B/L/T PFAS	Total/NA	
L-Perfluoroctanesulfonic acid	590	E I	2.8	0.23	ug/Kg	1	B/L/T PFAS	Total/NA	
Br-Perfluoroctanesulfonic acid	0.30	J	2.8	0.23	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFOS	590		2.8	0.23	ug/Kg	1	B/L/T PFAS	Total/NA	

## **Client Sample ID: NK282630, MSB50169, P26**

## **Lab Sample ID: 320-117508-24**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoronanoic acid (PFNA)	0.68	J	1.5	0.26	ug/Kg	1	B/L/T PFAS	Total/NA	
Perfluorodecanoic acid (PFDA)	0.29	J	1.5	0.15	ug/Kg	1	B/L/T PFAS	Total/NA	
L-Perfluoroctanesulfonic acid	6.2	I	3.7	0.30	ug/Kg	1	B/L/T PFAS	Total/NA	
Total PFOS	6.2		3.7	0.30	ug/Kg	1	B/L/T PFAS	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Client Sample ID: NK276851, MSB46239, P28

## Lab Sample ID: 320-117508-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	0.76	J	1.3	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.80	J	1.3	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	300	E I	3.2	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	0.59	J	3.2	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	300		3.2	0.26	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK282547, MSB49842, P29

## Lab Sample ID: 320-117508-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanoic acid	0.22	J	0.91	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	0.22	J	0.91	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	6.6		0.91	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	2.3		0.91	0.094	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.2		0.91	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	380	E I	2.3	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	0.56	J	2.3	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	380		2.3	0.18	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK276660, MSB45963, P30

## Lab Sample ID: 320-117508-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
L-Perfluoroctanesulfonic acid	720	E I	4.3	0.35	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	720		4.3	0.35	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK282696, MSB50223, P31

## Lab Sample ID: 320-117508-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	0.33	J	1.8	0.31	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	0.90	J	1.8	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	350	E I	4.4	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	0.90	J	4.4	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOS	350		4.4	0.36	ug/Kg	1		B/L/T PFAS	Total/NA

## Client Sample ID: NK283601, Spat. Cly, Liver, ABJ34298, MSB1011285, P32

## Lab Sample ID: 320-117508-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.33	J	0.60	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.69		0.60	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.2		0.60	0.069	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	29		0.60	0.062	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.7		0.60	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.94		0.60	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	31		0.60	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.95		0.60	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.15	J	0.60	0.060	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid - DL	110		60	12	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	110		60	12	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	340		60	10	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	140		60	8.9	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	3100		60	8.9	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	2900		60	8.9	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283601, Spat. Cly, Liver, ABJ34298,  
 MSB1011285, P32 (Continued)**

**Lab Sample ID: 320-117508-29**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanesulfonic acid (PFHpS) - DL	330		60	11	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	11000	E	150	12	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	3300		150	12	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	15000		150	12	ug/Kg	100		B/L/T PFAS	Total/NA
8:2 FTS - RA	11		0.60	0.060	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: NK283602, JLW125, S. Calypeata, L,  
 MSB1011279, P33**

**Lab Sample ID: 320-117508-30**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.9		0.98	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PPPeA)	0.38	J	0.98	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.59	J	0.98	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.53	J	0.98	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid	120		98	20	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA	120		98	20	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	200		98	17	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	19		0.98	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.4		0.98	0.27	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.69	J	0.98	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPPeS)	21		0.98	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	140		98	15	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS	1800		98	15	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	1600		98	15	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	120		98	18	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid	5400		250	20	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid	1500		250	20	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS	6900		250	20	ug/Kg	100		B/L/T PFAS	Total/NA
6:2 FTS	0.42	J	0.98	0.42	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.13	J	0.98	0.099	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS - RA	6.2		0.98	0.098	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: NK283605, Liver, Spatula, MSB1011318, P34**

**Lab Sample ID: 320-117508-31**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.1		0.86	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PPPeA)	0.50	J	0.86	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.88		0.86	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.6		0.86	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	16		0.86	0.089	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.5		0.86	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.4		0.86	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PPPeS)	67		0.86	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.82	J	0.86	0.37	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.12	J I	0.86	0.087	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid - DL	130		86	17	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	130		86	17	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283605, Liver, Spatula, MSB1011318, P34  
 (Continued)**

**Lab Sample ID: 320-117508-31**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA) - DL	150		86	15	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	180		86	13	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	1800		86	13	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	1600		86	13	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	120		86	16	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	5900		220	18	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	1500		220	18	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	7400		220	18	ug/Kg	100		B/L/T PFAS	Total/NA
8:2 FTS - RA	4.8		0.86	0.086	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: NK283606, Spatula, Liver, MSB1011339, P35**

**Lab Sample ID: 320-117508-32**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.18	J	0.94	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.30	J	0.94	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.34	J	0.94	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	70		0.94	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	1.1		0.94	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	71		0.94	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	21		0.94	0.097	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.7		0.94	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.40	J	0.94	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	13		0.94	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.59	J	0.94	0.40	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.16	J	0.94	0.095	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	250		94	17	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	80	J	94	14	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	1700		94	14	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	1700		94	14	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	260		94	17	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	7900		240	19	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	2200		240	19	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	10000		240	19	ug/Kg	100		B/L/T PFAS	Total/NA
8:2 FTS - RA	6.0		0.94	0.094	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: NK283607, S. calyptata, Liver,  
 MSB1011310, P36**

**Lab Sample ID: 320-117508-33**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.37	J	0.88	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.54	J	0.88	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.61	J	0.88	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	74		0.88	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.78	J	0.88	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	74		0.88	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	34		0.88	0.091	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.7		0.88	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.1		0.88	0.15	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283607, S. calyptata, Liver,  
 MSB1011310, P36 (Continued)**

**Lab Sample ID: 320-117508-33**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanesulfonic acid (PFPeS)	28		0.88	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.54	J	0.88	0.38	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.16	J I	0.88	0.089	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	440		88	15	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	110		88	13	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	3300		88	13	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	3200		88	13	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	340		88	16	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	12000	E	220	18	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	3800		220	18	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	16000		220	18	ug/Kg	100		B/L/T PFAS	Total/NA
8:2 FTS - RA	11		0.88	0.088	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: NK283608, S. calyptata, L, MSB1011324,  
 P37**

**Lab Sample ID: 320-117508-34**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.59	J	0.76	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.81		0.76	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.94		0.76	0.088	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	34		0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	0.82		0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	35		0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	24		0.76	0.078	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.7		0.76	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.95		0.76	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	23		0.76	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.95		0.76	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.14	J	0.76	0.077	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	330		76	13	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	55	J	76	11	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	2500		76	11	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	2500		76	11	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	330		76	14	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	9900	E	190	15	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	2700		190	15	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	13000		190	15	ug/Kg	100		B/L/T PFAS	Total/NA
8:2 FTS - RA	7.1		0.76	0.076	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: NK283615, S. calyptata, L, MSB1011402,  
 P38**

**Lab Sample ID: 320-117508-35**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.70	J	0.94	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.81	J	0.94	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.72	J	0.94	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	35		0.94	0.097	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283615, S. calypeata, L, MSB1011402,  
 P38 (Continued)**

**Lab Sample ID: 320-117508-35**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroundecanoic acid (PFUnA)	2.6		0.94	0.26	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBs)	0.79 J		0.94	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	30		0.94	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.17 J		0.94	0.095	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid - DL	170		94	19	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	170		94	19	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	480		94	17	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	150		94	14	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	3000		94	14	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	2800		94	14	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	290		94	17	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	11000 E		240	19	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	3100		240	19	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	14000		240	19	ug/Kg	100		B/L/T PFAS	Total/NA
8:2 FTS - RA	11		0.94	0.094	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: NK283619, S. calypeata, L, MSB1011416,  
 P39**

**Lab Sample ID: 320-117508-36**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.1		0.75	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	2.5		0.75	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.2		0.75	0.087	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	53		0.75	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	4.3		0.75	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	58		0.75	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	25		0.75	0.077	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.8		0.75	0.20	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBs)	1.2		0.75	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	34		0.75	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.54 J		0.75	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.23 J		0.75	0.076	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	390		75	13	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	52 J		75	11	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	2600		75	11	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	2600		75	11	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	460		75	14	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	11000 E		190	15	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	3200		190	15	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	14000		190	15	ug/Kg	100		B/L/T PFAS	Total/NA
8:2 FTS - RA	5.1		0.75	0.075	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: NK283621, S. calypeata, L, MSB1011430,  
 P40**

**Lab Sample ID: 320-117508-37**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.50 J		0.76	0.13	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283621, S. calyptata, L, MSB1011430,  
 P40 (Continued)**

**Lab Sample ID: 320-117508-37**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.87		0.76	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.4		0.76	0.089	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	45		0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	1.2		0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	46		0.76	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	62		0.76	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	7.4		0.76	0.079	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.57 J		0.76	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.90		0.76	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	23		0.76	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid	53 J		76	11	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS	390		76	11	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid	340		76	11	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	43		0.76	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid	2600		190	15	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid	480		190	15	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS	3100		190	15	ug/Kg	100		B/L/T PFAS	Total/NA
6:2 FTS	0.48 J		0.76	0.32	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.19 J		0.76	0.077	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS - RA	1.3		0.76	0.076	ug/Kg	1		B/L/T PFAS	Total/NA

**Client Sample ID: NK283622, L, S. calyptata, MSB1011451,  
 P41**

**Lab Sample ID: 320-117508-38**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.2		0.78	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	3.0		0.78	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	3.0		0.78	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	52		0.78	0.080	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.9		0.78	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.36 J		0.78	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	21		0.78	0.078	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.20 J		0.78	0.078	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	730		78	14	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	1200		78	11	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	1200		78	11	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	610		78	14	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	19000 E		190	16	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	6000		190	16	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	25000		190	16	ug/Kg	100		B/L/T PFAS	Total/NA

**Client Sample ID: NK283626, S. calyptata, L, MSB1011466,  
 P42**

**Lab Sample ID: 320-117508-39**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.32 J		0.70	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.66 J		0.70	0.19	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283626, S. calypeata, L, MSB1011466,  
 P42 (Continued)**

**Lab Sample ID: 320-117508-39**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	2.5		0.70	0.082	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	55		0.70	0.073	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.7		0.70	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.1		0.70	0.12	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	62		0.70	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.34	J	0.70	0.30	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	18		0.70	0.070	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.19	J	0.70	0.071	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid - DL	410		70	14	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	410		70	14	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	800		70	12	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	260		70	10	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	5800		70	10	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	5600		70	10	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	750		70	13	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	19000	E	180	14	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	6400		180	14	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	26000		180	14	ug/Kg	100		B/L/T PFAS	Total/NA

**Client Sample ID: NK283627, S. calypeata, L, MSB1011473,  
 P43**

**Lab Sample ID: 320-117508-40**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	6.5		0.79	0.19	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanoic acid (PFPeA)	0.64	J	0.79	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	1.0		0.79	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0		0.79	0.091	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	43		0.79	0.081	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.2		0.79	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.9		0.79	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	60		0.79	0.14	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.41	J	0.79	0.33	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	14		0.79	0.079	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.16	J	0.79	0.080	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid - DL	350		79	16	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	350		79	16	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	690		79	14	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	300		79	12	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	6800		79	12	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	6500		79	12	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	680		79	15	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	17000	E	200	16	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	5400		200	16	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	23000		200	16	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283629, S. calypteata, Liver,  
 MSB1011446, P44**

**Lab Sample ID: 320-117508-41**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.36	J	1.3	0.22	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.81	J	1.3	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.2	J	1.3	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	47		1.3	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.7		1.3	0.34	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.0	J	1.3	0.21	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	47		1.3	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	14		1.3	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.26	J	1.3	0.13	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid - DL	390		130	25	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	390		130	25	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	540		130	22	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	210		130	19	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	5200		130	19	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	5000		130	19	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	450		130	23	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	15000	E	310	25	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	4200		310	25	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	19000		310	25	ug/Kg	100		B/L/T PFAS	Total/NA

**Client Sample ID: NK283631, L. americana, MSB1011511,  
 P45**

**Lab Sample ID: 320-117508-42**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.70	J	0.91	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	1.2		0.91	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.5		0.91	0.11	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	60		0.91	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	2.5		0.91	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	63		0.91	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA)	65		0.91	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	8.1		0.91	0.094	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.5		0.91	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.3		0.91	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	37		0.91	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	44		0.91	0.17	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	2.1		0.91	0.091	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.19	J	0.91	0.092	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	93		91	13	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	190		91	13	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	93		91	13	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	3100		230	18	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	570		230	18	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	3700		230	18	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283633, L, S. clypeata, MSB1011525, P46**

**Lab Sample ID: 320-117508-43**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.34	J	0.89	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.58	J	0.89	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.98		0.89	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	40		0.89	0.092	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.2		0.89	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.82	J	0.89	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	43		0.89	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	15		0.89	0.089	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.18	J	0.89	0.090	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid - DL	410		89	18	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	410		89	18	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	590		89	16	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	200		89	13	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	4700		89	13	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	4500		89	13	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	490		89	17	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	17000	E	220	18	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	4300		220	18	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	21000		220	18	ug/Kg	100		B/L/T PFAS	Total/NA

**Client Sample ID: NK283641, L, S. clypeata, MSB1011577, P47**

**Lab Sample ID: 320-117508-44**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.39	J	0.90	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.79	J	0.90	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.81	J	0.90	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	88		0.90	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	2.2		0.90	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	90		0.90	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	32		0.90	0.093	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.6		0.90	0.25	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.2		0.90	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	54		0.90	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	11		0.90	0.090	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.16	J	0.90	0.091	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	370		90	16	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	220		90	13	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	2300		90	13	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	2100		90	13	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	210		90	17	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	9700	E	230	18	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	2900		230	18	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	13000		230	18	ug/Kg	100		B/L/T PFAS	Total/NA

**Client Sample ID: NK283644, S. clypeata, Liver, MSB1011744, P48**

**Lab Sample ID: 320-117508-45**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.19	J	0.87	0.15	ug/Kg	1		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283644, S. clypeata, Liver, MSB1011744,  
 P48 (Continued)**

**Lab Sample ID: 320-117508-45**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	0.35	J	0.87	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.57	J	0.87	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	45		0.87	0.090	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.2		0.87	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.69	J	0.87	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	26		0.87	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	14		0.87	0.087	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.19	J	0.87	0.088	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid - DL	140		87	18	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	140		87	18	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	660		87	15	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	130		87	13	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	3500		87	13	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	3300		87	13	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	500		87	16	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	16000	E	220	18	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	5200		220	18	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	21000		220	18	ug/Kg	100		B/L/T PFAS	Total/NA

**Client Sample ID: NK283669, S. clypeata, Liver, MSB1011800,  
 P49**

**Lab Sample ID: 320-117508-46**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.20	J	0.88	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.33	J	0.88	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.56	J	0.88	0.10	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluoroctanoic acid	64		0.88	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Br-Perfluoroctanoic acid	1.9		0.88	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Total PFOA	65		0.88	0.18	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	35		0.88	0.091	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.0		0.88	0.24	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.56	J	0.88	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	18		0.88	0.16	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	12		0.88	0.088	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.18	J	0.88	0.089	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	460		88	15	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	97		88	13	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	1800		88	13	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	1700	I	88	13	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	400		88	16	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluoroctanesulfonic acid - DL	15000	E	220	18	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluoroctanesulfonic acid - DL	4300		220	18	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	19000		220	18	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283674, S. clypeata, Liver, MSB1011812, P50**      **Lab Sample ID: 320-117508-47**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.23	J	0.85	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorohexanoic acid (PFHxA)	0.37	J	0.85	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.78	J	0.85	0.099	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorodecanoic acid (PFDA)	50		0.85	0.088	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.7		0.85	0.23	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.92		0.85	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	34		0.85	0.15	ug/Kg	1		B/L/T PFAS	Total/NA
6:2 FTS	0.45	J	0.85	0.36	ug/Kg	1		B/L/T PFAS	Total/NA
8:2 FTS	24		0.85	0.085	ug/Kg	1		B/L/T PFAS	Total/NA
10:2 FTS	0.78	J	0.85	0.086	ug/Kg	1		B/L/T PFAS	Total/NA
L-Perfluorooctanoic acid - DL	91		85	17	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOA - DL	91		85	17	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluorononanoic acid (PFNA) - DL	670		85	15	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorohexanesulfonic acid - DL	140		85	13	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFHxS - DL	2600		85	13	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorohexanesulfonic acid - DL	2500		85	13	ug/Kg	100		B/L/T PFAS	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	480		85	16	ug/Kg	100		B/L/T PFAS	Total/NA
L-Perfluorooctanesulfonic acid - DL	17000	E	210	17	ug/Kg	100		B/L/T PFAS	Total/NA
Br-Perfluorooctanesulfonic acid - DL	5200		210	17	ug/Kg	100		B/L/T PFAS	Total/NA
Total PFOS - DL	22000		210	17	ug/Kg	100		B/L/T PFAS	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK14474, MSB18488, Pool1, P1**

**Lab Sample ID: 320-117508-1**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.28	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
<b>L-Perfluorooctanoic acid</b>	<b>0.58 J</b>		1.0	0.21	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
Br-Perfluorooctanoic acid	ND		1.0	0.21	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
<b>Total PFOA</b>	<b>0.58 J</b>		1.0	0.21	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
Perfluorononanoic acid (PFNA)	3.5		1.0	0.18	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
Perfluorodecanoic acid (PFDA)	4.1		1.0	0.11	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
Perfluoroundecanoic acid (PFUnA)	1.0		1.0	0.28	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.18	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.19	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>0.16 J</b>		1.0	0.15	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
<b>Total PFHxS</b>	<b>3.0</b>		1.0	0.15	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>2.9</b>		1.0	0.15	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
Perfluoroheptanesulfonic acid (PFHpS)	1.7		1.0	0.19	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
L-Perfluoroctanesulfonic acid	1000 E I		2.6	0.21	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
Br-Perfluoroctanesulfonic acid	28		2.6	0.21	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
<b>Total PFOS</b>	<b>1100</b>		2.6	0.21	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
4:2 FTS	ND *1		1.0	0.27	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
6:2 FTS	ND		1.0	0.44	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
<b>10:2 FTS</b>	<b>0.14 J</b>		1.0	0.10	ug/Kg		12/06/24 12:01	12/10/24 10:12	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	70		25 - 150				12/06/24 12:01	12/10/24 10:12	1
13C5 PFPeA	87		25 - 150				12/06/24 12:01	12/10/24 10:12	1
13C2 PFHxA	99		25 - 150				12/06/24 12:01	12/10/24 10:12	1
13C4 PFHpA	99		25 - 150				12/06/24 12:01	12/10/24 10:12	1
13C4 PFOA	83		25 - 150				12/06/24 12:01	12/10/24 10:12	1
13C5 PFNA	55		25 - 150				12/06/24 12:01	12/10/24 10:12	1
13C2 PFDA	108		25 - 150				12/06/24 12:01	12/10/24 10:12	1
13C2 PFUnA	116		25 - 150				12/06/24 12:01	12/10/24 10:12	1
13C3 PFBS	87		25 - 150				12/06/24 12:01	12/10/24 10:12	1
18O2 PFHxS	112		25 - 150				12/06/24 12:01	12/10/24 10:12	1
13C4 PFOS	90		25 - 150				12/06/24 12:01	12/10/24 10:12	1
M2-4:2 FTS	153 *5+		25 - 150				12/06/24 12:01	12/10/24 10:12	1
M2-6:2 FTS	127		25 - 150				12/06/24 12:01	12/10/24 10:12	1
13C2 10:2 FTS	499 *5+		25 - 150				12/06/24 12:01	12/10/24 10:12	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>8:2 FTS</b>	<b>0.30 J</b>		1.0	0.10	ug/Kg		12/06/24 12:01	12/11/24 14:35	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
M2-8:2 FTS	153 *5+		25 - 150				12/06/24 12:01	12/11/24 14:35	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK9098, Liver, P2**

**Lab Sample ID: 320-117508-2**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.84	0.20	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Perfluoropentanoic acid (PFPeA)	ND		0.84	0.15	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Perfluorohexanoic acid (PFHxA)	ND		0.84	0.23	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Perfluoroheptanoic acid (PFHpA)	ND		0.84	0.097	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
L-Perfluoroctanoic acid	ND		0.84	0.17	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Br-Perfluoroctanoic acid	ND		0.84	0.17	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Total PFOA	ND		0.84	0.17	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Perfluorononanoic acid (PFNA)	ND		0.84	0.15	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Perfluorodecanoic acid (PFDA)	ND		0.84	0.087	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Perfluoroundecanoic acid (PFUnA)	ND		0.84	0.23	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.84	0.14	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.84	0.15	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Br-Perfluorohexanesulfonic acid	ND		0.84	0.12	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Total PFHxS	ND		0.84	0.12	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
L-Perfluorohexanesulfonic acid	ND		0.84	0.12	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.84	0.16	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>66 I</b>		2.1	0.17	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.75 J</b>		2.1	0.17	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
<b>Total PFOS</b>	<b>67</b>		2.1	0.17	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
4:2 FTS	ND	*1	0.84	0.22	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
6:2 FTS	ND		0.84	0.36	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
8:2 FTS	ND		0.84	0.084	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
10:2 FTS	ND		0.84	0.085	ug/Kg	12/06/24	12:01	12/10/24 10:31	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	84		25 - 150			12/06/24	12:01	12/10/24 10:31	1
13C5 PFPeA	84		25 - 150			12/06/24	12:01	12/10/24 10:31	1
13C2 PFHxA	94		25 - 150			12/06/24	12:01	12/10/24 10:31	1
13C4 PFHpA	83		25 - 150			12/06/24	12:01	12/10/24 10:31	1
13C4 PFOA	79		25 - 150			12/06/24	12:01	12/10/24 10:31	1
13C5 PFNA	81		25 - 150			12/06/24	12:01	12/10/24 10:31	1
13C2 PFDA	87		25 - 150			12/06/24	12:01	12/10/24 10:31	1
13C2 PFUnA	78		25 - 150			12/06/24	12:01	12/10/24 10:31	1
13C3 PFBS	83		25 - 150			12/06/24	12:01	12/10/24 10:31	1
18O2 PFHxS	101		25 - 150			12/06/24	12:01	12/10/24 10:31	1
13C4 PFOS	84		25 - 150			12/06/24	12:01	12/10/24 10:31	1
M2-4:2 FTS	133		25 - 150			12/06/24	12:01	12/10/24 10:31	1
M2-6:2 FTS	101		25 - 150			12/06/24	12:01	12/10/24 10:31	1
M2-8:2 FTS	81		25 - 150			12/06/24	12:01	12/10/24 10:31	1
13C2 10:2 FTS	452 *5+		25 - 150			12/06/24	12:01	12/10/24 10:31	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK2445, Liver, AFP7B, P3**

**Lab Sample ID: 320-117508-3**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.93	0.22	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
Perfluoropentanoic acid (PFPeA)	ND		0.93	0.16	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
Perfluorohexanoic acid (PFHxA)	ND		0.93	0.25	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
Perfluoroheptanoic acid (PFHpA)	ND		0.93	0.11	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
L-Perfluoroctanoic acid	ND		0.93	0.19	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
Br-Perfluoroctanoic acid	ND		0.93	0.19	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
Total PFOA	ND		0.93	0.19	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>4.4</b>		0.93	0.16	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.6</b>		0.93	0.095	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
Perfluoroundecanoic acid (PFUnA)	ND		0.93	0.25	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.93	0.16	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.93	0.17	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
Br-Perfluorohexanesulfonic acid	ND		0.93	0.14	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
<b>Total PFHxS</b>	<b>3.0</b>		0.93	0.14	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>3.0</b>		0.93	0.14	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>2.1</b>		0.93	0.17	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>420 E I</b>		2.3	0.19	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>17</b>		2.3	0.19	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
<b>Total PFOS</b>	<b>440</b>		2.3	0.19	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
4:2 FTS	ND	*1	0.93	0.25	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
6:2 FTS	ND		0.93	0.39	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
8:2 FTS	ND		0.93	0.093	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
10:2 FTS	ND		0.93	0.094	ug/Kg	12/06/24	12:01	12/10/24 10:51	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	68		25 - 150			12/06/24	12:01	12/10/24 10:51	1
13C5 PFPeA	76		25 - 150			12/06/24	12:01	12/10/24 10:51	1
13C2 PFHxA	91		25 - 150			12/06/24	12:01	12/10/24 10:51	1
13C4 PFHpA	86		25 - 150			12/06/24	12:01	12/10/24 10:51	1
13C4 PFOA	77		25 - 150			12/06/24	12:01	12/10/24 10:51	1
13C5 PFNA	72		25 - 150			12/06/24	12:01	12/10/24 10:51	1
13C2 PFDA	89		25 - 150			12/06/24	12:01	12/10/24 10:51	1
13C2 PFUnA	78		25 - 150			12/06/24	12:01	12/10/24 10:51	1
13C3 PFBS	85		25 - 150			12/06/24	12:01	12/10/24 10:51	1
18O2 PFHxS	94		25 - 150			12/06/24	12:01	12/10/24 10:51	1
13C4 PFOS	84		25 - 150			12/06/24	12:01	12/10/24 10:51	1
M2-4:2 FTS	77		25 - 150			12/06/24	12:01	12/10/24 10:51	1
M2-6:2 FTS	78		25 - 150			12/06/24	12:01	12/10/24 10:51	1
M2-8:2 FTS	77		25 - 150			12/06/24	12:01	12/10/24 10:51	1
13C2 10:2 FTS	300 *5+		25 - 150			12/06/24	12:01	12/10/24 10:51	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK2444, Liver, AFP7A, P4**

**Lab Sample ID: 320-117508-4**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.96	0.23	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
Perfluoropentanoic acid (PFPeA)	ND		0.96	0.17	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
Perfluorohexanoic acid (PFHxA)	ND		0.96	0.26	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
Perfluoroheptanoic acid (PFHpA)	ND		0.96	0.11	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
L-Perfluoroctanoic acid	ND		0.96	0.19	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
Br-Perfluoroctanoic acid	ND		0.96	0.19	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
Total PFOA	ND		0.96	0.19	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.67 J</b>		0.96	0.17	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.30 J</b>		0.96	0.099	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
Perfluoroundecanoic acid (PFUnA)	ND		0.96	0.26	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.96	0.16	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.96	0.17	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
Br-Perfluorohexanesulfonic acid	ND		0.96	0.14	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
Total PFHxS	ND		0.96	0.14	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
L-Perfluorohexanesulfonic acid	ND		0.96	0.14	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.96	0.18	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>530 E I</b>		2.4	0.20	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>1.4 J</b>		2.4	0.20	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
<b>Total PFOS</b>	<b>530</b>		2.4	0.20	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
4:2 FTS	ND	*1	0.96	0.26	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
6:2 FTS	ND		0.96	0.41	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
8:2 FTS	ND		0.96	0.096	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
10:2 FTS	ND		0.96	0.097	ug/Kg		12/06/24 12:01	12/10/24 11:10	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	54		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
13C5 PFPeA	73		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
13C2 PFHxA	82		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
13C4 PFHpA	84		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
13C4 PFOA	72		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
13C5 PFNA	58		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
13C2 PFDA	117		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
13C2 PFUnA	97		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
13C3 PFBS	76		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
18O2 PFHxS	92		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
13C4 PFOS	80		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
M2-4:2 FTS	81		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
M2-6:2 FTS	112		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
M2-8:2 FTS	81		25 - 150			12/06/24 12:01	12/10/24 11:10	1	
13C2 10:2 FTS	480 *5+		25 - 150			12/06/24 12:01	12/10/24 11:10	1	

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35660, MSB29117, P5**

**Lab Sample ID: 320-117508-5**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.96	0.23	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
Perfluoropentanoic acid (PFPeA)	ND		0.96	0.17	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
Perfluorohexanoic acid (PFHxA)	ND		0.96	0.26	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
Perfluoroheptanoic acid (PFHpA)	ND		0.96	0.11	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
L-Perfluoroctanoic acid	ND		0.96	0.19	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
Br-Perfluoroctanoic acid	ND		0.96	0.19	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
Total PFOA	ND		0.96	0.19	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.37 J</b>		0.96	0.17	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.24 J</b>		0.96	0.099	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
Perfluoroundecanoic acid (PFUnA)	ND		0.96	0.26	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.96	0.16	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.96	0.17	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
Br-Perfluorohexanesulfonic acid	ND		0.96	0.14	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
<b>Total PFHxS</b>	<b>0.27 J</b>		0.96	0.14	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.27 J</b>		0.96	0.14	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.96	0.18	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>640 E I</b>		2.4	0.20	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.45 J</b>		2.4	0.20	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
<b>Total PFOS</b>	<b>650</b>		2.4	0.20	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
4:2 FTS	ND *1		0.96	0.26	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
6:2 FTS	ND		0.96	0.41	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
8:2 FTS	ND		0.96	0.096	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
<b>10:2 FTS</b>	<b>0.15 J</b>		0.96	0.097	ug/Kg		12/06/24 12:01	12/10/24 11:30	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	57		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
13C5 PFPeA	69		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
13C2 PFHxA	90		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
13C4 PFHpA	91		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
13C4 PFOA	73		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
13C5 PFNA	57		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
13C2 PFDA	115		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
13C2 PFUnA	104		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
13C3 PFBS	86		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
18O2 PFHxS	98		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
13C4 PFOS	87		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
M2-4:2 FTS	142		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
M2-6:2 FTS	155 *5+		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
M2-8:2 FTS	97		25 - 150			12/06/24 12:01	12/10/24 11:30	1	
13C2 10:2 FTS	454 *5+		25 - 150			12/06/24 12:01	12/10/24 11:30	1	

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35661, MSB29140, P6**

**Lab Sample ID: 320-117508-6**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.97	0.23	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
Perfluoropentanoic acid (PFPeA)	ND		0.97	0.17	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
Perfluorohexanoic acid (PFHxA)	ND		0.97	0.27	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
Perfluoroheptanoic acid (PFHpA)	ND		0.97	0.11	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>L-Perfluorooctanoic acid</b>	<b>0.72 J</b>		0.97	0.20	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
Br-Perfluorooctanoic acid	ND		0.97	0.20	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>Total PFOA</b>	<b>0.72 J</b>		0.97	0.20	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>6.4</b>		0.97	0.17	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>3.8</b>		0.97	0.10	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>1.4</b>		0.97	0.26	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.97	0.17	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.97	0.18	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>0.27 J</b>		0.97	0.14	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>Total PFHxS</b>	<b>3.7</b>		0.97	0.14	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>3.5</b>		0.97	0.14	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>1.3</b>		0.97	0.18	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>1000 E I</b>		2.4	0.20	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>15</b>		2.4	0.20	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>Total PFOS</b>	<b>1000</b>		2.4	0.20	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
4:2 FTS	ND *1		0.97	0.26	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
6:2 FTS	ND		0.97	0.41	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>10:2 FTS</b>	<b>0.35 J</b>		0.97	0.098	ug/Kg		12/06/24 12:01	12/10/24 11:49	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	37		25 - 150				12/06/24 12:01	12/10/24 11:49	1
13C5 PFPeA	63		25 - 150				12/06/24 12:01	12/10/24 11:49	1
13C2 PFHxA	79		25 - 150				12/06/24 12:01	12/10/24 11:49	1
13C4 PFHpA	92		25 - 150				12/06/24 12:01	12/10/24 11:49	1
13C4 PFOA	72		25 - 150				12/06/24 12:01	12/10/24 11:49	1
13C5 PFNA	43		25 - 150				12/06/24 12:01	12/10/24 11:49	1
13C2 PFDA	101		25 - 150				12/06/24 12:01	12/10/24 11:49	1
13C2 PFUnA	109		25 - 150				12/06/24 12:01	12/10/24 11:49	1
13C3 PFBS	74		25 - 150				12/06/24 12:01	12/10/24 11:49	1
18O2 PFHxS	85		25 - 150				12/06/24 12:01	12/10/24 11:49	1
13C4 PFOS	78		25 - 150				12/06/24 12:01	12/10/24 11:49	1
M2-4:2 FTS	146		25 - 150				12/06/24 12:01	12/10/24 11:49	1
M2-6:2 FTS	140		25 - 150				12/06/24 12:01	12/10/24 11:49	1
13C2 10:2 FTS	323 *5+		25 - 150				12/06/24 12:01	12/10/24 11:49	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>8:2 FTS</b>	<b>0.43 J</b>		0.97	0.097	ug/Kg		12/06/24 12:01	12/11/24 14:55	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
M2-8:2 FTS	188 *5+		25 - 150				12/06/24 12:01	12/11/24 14:55	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35655, MSB29134, P7**

**Lab Sample ID: 320-117508-7**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.99	0.23	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
Perfluoropentanoic acid (PFPeA)	ND		0.99	0.17	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
Perfluorohexanoic acid (PFHxA)	ND		0.99	0.27	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
Perfluoroheptanoic acid (PFHpA)	ND		0.99	0.11	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
<b>L-Perfluorooctanoic acid</b>	<b>0.46 J</b>		0.99	0.20	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
Br-Perfluorooctanoic acid	ND		0.99	0.20	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
<b>Total PFOA</b>	<b>0.46 J</b>		0.99	0.20	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>15</b>		0.99	0.17	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>20</b>		0.99	0.10	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>9.5</b>		0.99	0.27	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.99	0.17	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.99	0.18	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
Br-Perfluorohexanesulfonic acid	ND		0.99	0.15	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
<b>Total PFHxS</b>	<b>0.35 J</b>		0.99	0.15	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.35 J</b>		0.99	0.15	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.43 J</b>		0.99	0.18	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
<b>L-Perfluorooctanesulfonic acid</b>	<b>570 E I</b>		2.5	0.20	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
<b>Br-Perfluorooctanesulfonic acid</b>	<b>7.5</b>		2.5	0.20	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
<b>Total PFOS</b>	<b>580</b>		2.5	0.20	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
4:2 FTS	ND *1		0.99	0.26	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
6:2 FTS	ND		0.99	0.42	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
<b>10:2 FTS</b>	<b>0.72 J</b>		0.99	0.10	ug/Kg		12/06/24 12:01	12/10/24 12:08	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	53		25 - 150				12/06/24 12:01	12/10/24 12:08	1
13C5 PFPeA	64		25 - 150				12/06/24 12:01	12/10/24 12:08	1
13C2 PFHxA	80		25 - 150				12/06/24 12:01	12/10/24 12:08	1
13C4 PFHpA	84		25 - 150				12/06/24 12:01	12/10/24 12:08	1
13C4 PFOA	71		25 - 150				12/06/24 12:01	12/10/24 12:08	1
13C5 PFNA	54		25 - 150				12/06/24 12:01	12/10/24 12:08	1
13C2 PFDA	99		25 - 150				12/06/24 12:01	12/10/24 12:08	1
13C2 PFUnA	109		25 - 150				12/06/24 12:01	12/10/24 12:08	1
13C3 PFBS	73		25 - 150				12/06/24 12:01	12/10/24 12:08	1
18O2 PFHxS	82		25 - 150				12/06/24 12:01	12/10/24 12:08	1
13C4 PFOS	75		25 - 150				12/06/24 12:01	12/10/24 12:08	1
M2-4:2 FTS	169 *5+		25 - 150				12/06/24 12:01	12/10/24 12:08	1
M2-6:2 FTS	135		25 - 150				12/06/24 12:01	12/10/24 12:08	1
13C2 10:2 FTS	81		25 - 150				12/06/24 12:01	12/10/24 12:08	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>8:2 FTS</b>	<b>0.41 J</b>		0.99	0.099	ug/Kg		12/06/24 12:01	12/11/24 15:14	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
M2-8:2 FTS	158	*5+	25 - 150				12/06/24 12:01	12/11/24 15:14	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35811, MSB30651, P8**

**Lab Sample ID: 320-117508-8**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.94	0.22	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
Perfluoropentanoic acid (PFPeA)	ND		0.94	0.17	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
Perfluorohexanoic acid (PFHxA)	ND		0.94	0.26	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
Perfluoroheptanoic acid (PFHpA)	ND		0.94	0.11	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
L-Perfluoroctanoic acid	ND		0.94	0.19	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
Br-Perfluoroctanoic acid	ND		0.94	0.19	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
Total PFOA	ND		0.94	0.19	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>7.8</b>		0.94	0.17	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>9.5</b>		0.94	0.097	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>4.3</b>		0.94	0.26	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.94	0.16	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.94	0.17	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
Br-Perfluorohexanesulfonic acid	ND		0.94	0.14	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
<b>Total PFHxS</b>	<b>0.18 J</b>		0.94	0.14	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.18 J</b>		0.94	0.14	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.23 J</b>		0.94	0.17	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>250 E I</b>		2.4	0.19	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>7.7</b>		2.4	0.19	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
<b>Total PFOS</b>	<b>250</b>		2.4	0.19	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
4:2 FTS	ND *1		0.94	0.25	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
6:2 FTS	ND		0.94	0.40	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
<b>10:2 FTS</b>	<b>0.21 J</b>		0.94	0.095	ug/Kg		12/06/24 12:01	12/10/24 12:47	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	48		25 - 150				12/06/24 12:01	12/10/24 12:47	1
13C5 PFPeA	59		25 - 150				12/06/24 12:01	12/10/24 12:47	1
13C2 PFHxA	73		25 - 150				12/06/24 12:01	12/10/24 12:47	1
13C4 PFHpA	79		25 - 150				12/06/24 12:01	12/10/24 12:47	1
13C4 PFOA	66		25 - 150				12/06/24 12:01	12/10/24 12:47	1
13C5 PFNA	61		25 - 150				12/06/24 12:01	12/10/24 12:47	1
13C2 PFDA	87		25 - 150				12/06/24 12:01	12/10/24 12:47	1
13C2 PFUnA	99		25 - 150				12/06/24 12:01	12/10/24 12:47	1
13C3 PFBS	67		25 - 150				12/06/24 12:01	12/10/24 12:47	1
18O2 PFHxS	82		25 - 150				12/06/24 12:01	12/10/24 12:47	1
13C4 PFOS	72		25 - 150				12/06/24 12:01	12/10/24 12:47	1
M2-4:2 FTS	140		25 - 150				12/06/24 12:01	12/10/24 12:47	1
M2-6:2 FTS	123		25 - 150				12/06/24 12:01	12/10/24 12:47	1
13C2 10:2 FTS	391 *5+		25 - 150				12/06/24 12:01	12/10/24 12:47	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>8:2 FTS</b>	<b>0.095 J</b>		0.94	0.094	ug/Kg		12/06/24 12:01	12/11/24 15:34	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	111		25 - 150				12/06/24 12:01	12/11/24 15:34	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35643, MSB29100, P9**

**Lab Sample ID: 320-117508-9**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.93	0.22	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
Perfluoropentanoic acid (PFPeA)	ND		0.93	0.16	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
Perfluorohexanoic acid (PFHxA)	ND		0.93	0.25	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
Perfluoroheptanoic acid (PFHpA)	ND		0.93	0.11	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>L-Perfluorooctanoic acid</b>	<b>0.33 J</b>		0.93	0.19	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
Br-Perfluorooctanoic acid	ND		0.93	0.19	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>Total PFOA</b>	<b>0.33 J</b>		0.93	0.19	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>16</b>		0.93	0.16	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>9.6</b>		0.93	0.095	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>1.5</b>		0.93	0.25	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.93	0.16	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.93	0.17	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
Br-Perfluorohexanesulfonic acid	ND		0.93	0.14	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>Total PFHxS</b>	<b>1.1</b>		0.93	0.14	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>1.1</b>		0.93	0.14	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>1.3</b>		0.93	0.17	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>330 E I</b>		2.3	0.19	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>15</b>		2.3	0.19	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>Total PFOS</b>	<b>350</b>		2.3	0.19	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
4:2 FTS	ND *1		0.93	0.25	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
6:2 FTS	ND		0.93	0.39	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>8:2 FTS</b>	<b>0.32 J</b>		0.93	0.093	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>10:2 FTS</b>	<b>0.25 J</b>		0.93	0.094	ug/Kg	12/06/24	12:01	12/11/24 15:53	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	79		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
13C5 PFPeA	87		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
13C2 PFHxA	109		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
13C4 PFHpA	110		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
13C4 PFOA	95		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
13C5 PFNA	96		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
13C2 PFDA	124		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
13C2 PFUnA	129		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
13C3 PFBS	104		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
18O2 PFHxS	120		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
13C4 PFOS	104		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
M2-4:2 FTS	234 *5+		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
M2-6:2 FTS	192 *5+		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
M2-8:2 FTS	149		25 - 150			12/06/24 12:01	12/11/24 15:53	1	
13C2 10:2 FTS	572 *5+		25 - 150			12/06/24 12:01	12/11/24 15:53	1	

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK170946, P10**

**Lab Sample ID: 320-117508-10**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.28	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
L-Perfluoroctanoic acid	ND		1.0	0.21	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Br-Perfluoroctanoic acid	ND		1.0	0.21	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Total PFOA	ND		1.0	0.21	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.11	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.28	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Total PFHxS	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>960</b>	<b>E I</b>	2.6	0.21	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.21</b>	<b>J</b>	2.6	0.21	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
<b>Total PFOS</b>	<b>960</b>		2.6	0.21	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
4:2 FTS	ND	*1	1.0	0.27	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
6:2 FTS	ND		1.0	0.43	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
8:2 FTS	ND		1.0	0.10	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
10:2 FTS	ND		1.0	0.10	ug/Kg	12/06/24 12:01	12/10/24 13:26		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	63		25 - 150			12/06/24 12:01	12/10/24 13:26		1
13C5 PFPeA	62		25 - 150			12/06/24 12:01	12/10/24 13:26		1
13C2 PFHxA	78		25 - 150			12/06/24 12:01	12/10/24 13:26		1
13C4 PFHpA	77		25 - 150			12/06/24 12:01	12/10/24 13:26		1
13C4 PFOA	77		25 - 150			12/06/24 12:01	12/10/24 13:26		1
13C5 PFNA	37		25 - 150			12/06/24 12:01	12/10/24 13:26		1
13C2 PFDA	76		25 - 150			12/06/24 12:01	12/10/24 13:26		1
13C2 PFUnA	72		25 - 150			12/06/24 12:01	12/10/24 13:26		1
13C3 PFBS	64		25 - 150			12/06/24 12:01	12/10/24 13:26		1
18O2 PFHxS	89		25 - 150			12/06/24 12:01	12/10/24 13:26		1
13C4 PFOS	76		25 - 150			12/06/24 12:01	12/10/24 13:26		1
M2-4:2 FTS	97		25 - 150			12/06/24 12:01	12/10/24 13:26		1
M2-6:2 FTS	80		25 - 150			12/06/24 12:01	12/10/24 13:26		1
M2-8:2 FTS	72		25 - 150			12/06/24 12:01	12/10/24 13:26		1
13C2 10:2 FTS	367	*5+	25 - 150			12/06/24 12:01	12/10/24 13:26		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK100328, Liver, AEPiR, P11**

**Lab Sample ID: 320-117508-11**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.25	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.28	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
L-Perfluoroctanoic acid	ND		1.0	0.21	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Br-Perfluoroctanoic acid	ND		1.0	0.21	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Total PFOA	ND		1.0	0.21	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.11	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.28	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.19	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Total PFHxS	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>2.6</b>	I	2.6	0.21	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Br-Perfluoroctanesulfonic acid	ND		2.6	0.21	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
<b>Total PFOS</b>	<b>2.6</b>		2.6	0.21	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
4:2 FTS	ND	*1	1.0	0.28	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
6:2 FTS	ND		1.0	0.44	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
8:2 FTS	ND		1.0	0.10	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
10:2 FTS	ND		1.0	0.11	ug/Kg	12/06/24 12:01	12/10/24 13:45		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	60		25 - 150			12/06/24 12:01	12/10/24 13:45		1
13C5 PFPeA	66		25 - 150			12/06/24 12:01	12/10/24 13:45		1
13C2 PFHxA	87		25 - 150			12/06/24 12:01	12/10/24 13:45		1
13C4 PFHpA	84		25 - 150			12/06/24 12:01	12/10/24 13:45		1
13C4 PFOA	75		25 - 150			12/06/24 12:01	12/10/24 13:45		1
13C5 PFNA	78		25 - 150			12/06/24 12:01	12/10/24 13:45		1
13C2 PFDA	94		25 - 150			12/06/24 12:01	12/10/24 13:45		1
13C2 PFUnA	88		25 - 150			12/06/24 12:01	12/10/24 13:45		1
13C3 PFBS	82		25 - 150			12/06/24 12:01	12/10/24 13:45		1
18O2 PFHxS	88		25 - 150			12/06/24 12:01	12/10/24 13:45		1
13C4 PFOS	85		25 - 150			12/06/24 12:01	12/10/24 13:45		1
M2-4:2 FTS	121		25 - 150			12/06/24 12:01	12/10/24 13:45		1
M2-6:2 FTS	90		25 - 150			12/06/24 12:01	12/10/24 13:45		1
M2-8:2 FTS	113		25 - 150			12/06/24 12:01	12/10/24 13:45		1
13C2 10:2 FTS	431	*5+	25 - 150			12/06/24 12:01	12/10/24 13:45		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK165232, MSB26431, P12**

**Lab Sample ID: 320-117508-12**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.2	0.27	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
Perfluoropentanoic acid (PFPeA)	ND		1.2	0.20	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
Perfluorohexanoic acid (PFHxA)	ND		1.2	0.32	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
Perfluoroheptanoic acid (PFHpA)	ND		1.2	0.13	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>L-Perfluorooctanoic acid</b>	<b>1.9</b>		1.2	0.23	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
Br-Perfluorooctanoic acid	ND		1.2	0.23	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>Total PFOA</b>	<b>1.9</b>		1.2	0.23	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>12</b>		1.2	0.20	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>6.9</b>		1.2	0.12	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>4.7</b>		1.2	0.32	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.2	0.20	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.2	0.21	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>0.17 J</b>		1.2	0.17	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>Total PFHxS</b>	<b>1.4</b>		1.2	0.17	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>1.3</b>		1.2	0.17	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.53 J</b>		1.2	0.22	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>L-Perfluorooctanesulfonic acid</b>	<b>260 E I</b>		2.9	0.24	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>Br-Perfluorooctanesulfonic acid</b>	<b>14</b>		2.9	0.24	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>Total PFOS</b>	<b>280</b>		2.9	0.24	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
4:2 FTS	ND *1		1.2	0.31	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
6:2 FTS	ND		1.2	0.49	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
8:2 FTS	ND		1.2	0.12	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
<b>10:2 FTS</b>	<b>0.12 J</b>		1.2	0.12	ug/Kg		12/06/24 12:01	12/10/24 14:05	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	67		25 - 150				12/06/24 12:01	12/10/24 14:05	1
13C5 PFPeA	77		25 - 150				12/06/24 12:01	12/10/24 14:05	1
13C2 PFHxA	84		25 - 150				12/06/24 12:01	12/10/24 14:05	1
13C4 PFHpA	88		25 - 150				12/06/24 12:01	12/10/24 14:05	1
13C4 PFOA	71		25 - 150				12/06/24 12:01	12/10/24 14:05	1
13C5 PFNA	79		25 - 150				12/06/24 12:01	12/10/24 14:05	1
13C2 PFDA	92		25 - 150				12/06/24 12:01	12/10/24 14:05	1
13C2 PFUnA	109		25 - 150				12/06/24 12:01	12/10/24 14:05	1
13C3 PFBS	88		25 - 150				12/06/24 12:01	12/10/24 14:05	1
18O2 PFHxS	93		25 - 150				12/06/24 12:01	12/10/24 14:05	1
13C4 PFOS	84		25 - 150				12/06/24 12:01	12/10/24 14:05	1
M2-4:2 FTS	155 *5+		25 - 150				12/06/24 12:01	12/10/24 14:05	1
M2-6:2 FTS	112		25 - 150				12/06/24 12:01	12/10/24 14:05	1
M2-8:2 FTS	123		25 - 150				12/06/24 12:01	12/10/24 14:05	1
13C2 10:2 FTS	400 *5+		25 - 150				12/06/24 12:01	12/10/24 14:05	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35676, MSB29118, P14**

**Lab Sample ID: 320-117508-13**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
<b>L-Perfluorooctanoic acid</b>	<b>0.58 J</b>		1.0	0.20	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
Br-Perfluorooctanoic acid	ND		1.0	0.20	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
<b>Total PFOA</b>	<b>0.58 J</b>		1.0	0.20	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>6.1</b>		1.0	0.18	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>4.4</b>		1.0	0.10	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.89 J</b>		1.0	0.27	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
<b>Total PFHxS</b>	<b>1.7</b>		1.0	0.15	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>1.7</b>		1.0	0.15	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.39 J</b>		1.0	0.19	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
<b>L-Perfluorooctanesulfonic acid</b>	<b>630 E I</b>		2.5	0.20	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
<b>Br-Perfluorooctanesulfonic acid</b>	<b>8.7</b>		2.5	0.20	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
<b>Total PFOS</b>	<b>640</b>		2.5	0.20	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
4:2 FTS	ND *1		1.0	0.27	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
6:2 FTS	ND		1.0	0.42	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
8:2 FTS	ND		1.0	0.10	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
<b>10:2 FTS</b>	<b>0.17 J</b>		1.0	0.10	ug/Kg	12/06/24 12:01	12/10/24 14:24		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	53		25 - 150			12/06/24 12:01	12/10/24 14:24		1
13C5 PFPeA	64		25 - 150			12/06/24 12:01	12/10/24 14:24		1
13C2 PFHxA	77		25 - 150			12/06/24 12:01	12/10/24 14:24		1
13C4 PFHpA	81		25 - 150			12/06/24 12:01	12/10/24 14:24		1
13C4 PFOA	64		25 - 150			12/06/24 12:01	12/10/24 14:24		1
13C5 PFNA	55		25 - 150			12/06/24 12:01	12/10/24 14:24		1
13C2 PFDA	91		25 - 150			12/06/24 12:01	12/10/24 14:24		1
13C2 PFUnA	85		25 - 150			12/06/24 12:01	12/10/24 14:24		1
13C3 PFBS	64		25 - 150			12/06/24 12:01	12/10/24 14:24		1
18O2 PFHxS	84		25 - 150			12/06/24 12:01	12/10/24 14:24		1
13C4 PFOS	75		25 - 150			12/06/24 12:01	12/10/24 14:24		1
M2-4:2 FTS	126		25 - 150			12/06/24 12:01	12/10/24 14:24		1
M2-6:2 FTS	93		25 - 150			12/06/24 12:01	12/10/24 14:24		1
M2-8:2 FTS	91		25 - 150			12/06/24 12:01	12/10/24 14:24		1
13C2 10:2 FTS	406 *5+		25 - 150			12/06/24 12:01	12/10/24 14:24		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35678, MSB29131, P15**

**Lab Sample ID: 320-117508-14**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.98	0.23	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
Perfluoropentanoic acid (PFPeA)	ND		0.98	0.17	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
Perfluorohexanoic acid (PFHxA)	ND		0.98	0.27	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
Perfluoroheptanoic acid (PFHpA)	ND		0.98	0.11	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
L-Perfluoroctanoic acid	ND		0.98	0.20	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
Br-Perfluoroctanoic acid	ND		0.98	0.20	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
Total PFOA	ND		0.98	0.20	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>1.6</b>		0.98	0.17	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.3</b>		0.98	0.10	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.63 J</b>		0.98	0.27	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.98	0.17	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.98	0.18	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
Br-Perfluorohexanesulfonic acid	ND		0.98	0.15	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
<b>Total PFHxS</b>	<b>0.25 J</b>		0.98	0.15	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.25 J</b>		0.98	0.15	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.98	0.18	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>570 E I</b>		2.5	0.20	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>1.5 J</b>		2.5	0.20	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
<b>Total PFOS</b>	<b>570</b>		2.5	0.20	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
4:2 FTS	ND *1		0.98	0.26	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
6:2 FTS	ND		0.98	0.42	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
<b>10:2 FTS</b>	<b>0.17 J</b>		0.98	0.099	ug/Kg		12/06/24 12:01	12/10/24 14:44	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	43		25 - 150				12/06/24 12:01	12/10/24 14:44	1
13C5 PFPeA	58		25 - 150				12/06/24 12:01	12/10/24 14:44	1
13C2 PFHxA	71		25 - 150				12/06/24 12:01	12/10/24 14:44	1
13C4 PFHpA	73		25 - 150				12/06/24 12:01	12/10/24 14:44	1
13C4 PFOA	61		25 - 150				12/06/24 12:01	12/10/24 14:44	1
13C5 PFNA	51		25 - 150				12/06/24 12:01	12/10/24 14:44	1
13C2 PFDA	80		25 - 150				12/06/24 12:01	12/10/24 14:44	1
13C2 PFUnA	83		25 - 150				12/06/24 12:01	12/10/24 14:44	1
13C3 PFBS	47		25 - 150				12/06/24 12:01	12/10/24 14:44	1
18O2 PFHxS	72		25 - 150				12/06/24 12:01	12/10/24 14:44	1
13C4 PFOS	73		25 - 150				12/06/24 12:01	12/10/24 14:44	1
M2-4:2 FTS	122		25 - 150				12/06/24 12:01	12/10/24 14:44	1
M2-6:2 FTS	91		25 - 150				12/06/24 12:01	12/10/24 14:44	1
13C2 10:2 FTS	286 *5+		25 - 150				12/06/24 12:01	12/10/24 14:44	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>8:2 FTS</b>	<b>0.12 J</b>		0.98	0.098	ug/Kg		12/06/24 12:01	12/11/24 16:12	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	111		25 - 150				12/06/24 12:01	12/11/24 16:12	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35669, MSB29093, P16**

**Lab Sample ID: 320-117508-15**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.28	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
<b>L-Perfluorooctanoic acid</b>	<b>0.34 J</b>		1.0	0.20	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
Br-Perfluorooctanoic acid	ND		1.0	0.20	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
<b>Total PFOA</b>	<b>0.34 J</b>		1.0	0.20	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>6.8</b>		1.0	0.18	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>5.1</b>		1.0	0.10	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>2.5</b>		1.0	0.27	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
<b>Total PFHxS</b>	<b>0.79 J</b>		1.0	0.15	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.79 J</b>		1.0	0.15	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.33 J</b>		1.0	0.19	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>340 E I</b>		2.5	0.21	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>4.3</b>		2.5	0.21	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
<b>Total PFOS</b>	<b>340</b>		2.5	0.21	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
4:2 FTS	ND *1		1.0	0.27	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
6:2 FTS	ND		1.0	0.43	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
<b>10:2 FTS</b>	<b>0.27 J</b>		1.0	0.10	ug/Kg		12/06/24 12:01	12/10/24 15:03	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	54		25 - 150				12/06/24 12:01	12/10/24 15:03	1
13C5 PFPeA	81		25 - 150				12/06/24 12:01	12/10/24 15:03	1
13C2 PFHxA	107		25 - 150				12/06/24 12:01	12/10/24 15:03	1
13C4 PFHpA	101		25 - 150				12/06/24 12:01	12/10/24 15:03	1
13C4 PFOA	87		25 - 150				12/06/24 12:01	12/10/24 15:03	1
13C5 PFNA	80		25 - 150				12/06/24 12:01	12/10/24 15:03	1
13C2 PFDA	122		25 - 150				12/06/24 12:01	12/10/24 15:03	1
13C2 PFUnA	132		25 - 150				12/06/24 12:01	12/10/24 15:03	1
13C3 PFBS	90		25 - 150				12/06/24 12:01	12/10/24 15:03	1
18O2 PFHxS	107		25 - 150				12/06/24 12:01	12/10/24 15:03	1
13C4 PFOS	100		25 - 150				12/06/24 12:01	12/10/24 15:03	1
M2-4:2 FTS	183 *5+		25 - 150				12/06/24 12:01	12/10/24 15:03	1
M2-6:2 FTS	157 *5+		25 - 150				12/06/24 12:01	12/10/24 15:03	1
13C2 10:2 FTS	465 *5+		25 - 150				12/06/24 12:01	12/10/24 15:03	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>8:2 FTS</b>	<b>0.14 J</b>		1.0	0.10	ug/Kg		12/06/24 12:01	12/11/24 16:32	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
M2-8:2 FTS	189	*5+	25 - 150				12/06/24 12:01	12/11/24 16:32	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35935, MSB39605, P17**

**Lab Sample ID: 320-117508-16**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.99	0.23	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
Perfluoropentanoic acid (PFPeA)	ND		0.99	0.17	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
Perfluorohexanoic acid (PFHxA)	ND		0.99	0.27	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
Perfluoroheptanoic acid (PFHpA)	ND		0.99	0.11	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
L-Perfluoroctanoic acid	ND		0.99	0.20	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
Br-Perfluoroctanoic acid	ND		0.99	0.20	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
Total PFOA	ND		0.99	0.20	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>15</b>		0.99	0.17	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>54</b>		0.99	0.10	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>19</b>		0.99	0.27	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
Perfluorobutanesulfonic acid (PFBS)	ND		0.99	0.17	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.99	0.18	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
Br-Perfluorohexanesulfonic acid	ND		0.99	0.15	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
<b>Total PFHxS</b>	<b>1.8</b>		0.99	0.15	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
<b>L-Perfluorohexanesulfonic acid</b>	<b>1.8</b>		0.99	0.15	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>1.9</b>		0.99	0.18	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>710 E</b>		2.5	0.20	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>38</b>		2.5	0.20	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
<b>Total PFOS</b>	<b>750</b>		2.5	0.20	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
4:2 FTS	ND *1		0.99	0.26	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
6:2 FTS	ND		0.99	0.42	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
8:2 FTS	ND		0.99	0.099	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
<b>10:2 FTS</b>	<b>0.12 J</b>		0.99	0.10	ug/Kg	12/06/24 12:01	12/10/24 15:23		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	22	*5-	25 - 150			12/06/24 12:01	12/10/24 15:23		1
13C5 PFPeA	52		25 - 150			12/06/24 12:01	12/10/24 15:23		1
13C2 PFHxA	80		25 - 150			12/06/24 12:01	12/10/24 15:23		1
13C4 PFHpA	93		25 - 150			12/06/24 12:01	12/10/24 15:23		1
13C4 PFOA	77		25 - 150			12/06/24 12:01	12/10/24 15:23		1
13C5 PFNA	75		25 - 150			12/06/24 12:01	12/10/24 15:23		1
13C2 PFDA	104		25 - 150			12/06/24 12:01	12/10/24 15:23		1
13C2 PFUnA	128		25 - 150			12/06/24 12:01	12/10/24 15:23		1
13C3 PFBS	64		25 - 150			12/06/24 12:01	12/10/24 15:23		1
18O2 PFHxS	95		25 - 150			12/06/24 12:01	12/10/24 15:23		1
13C4 PFOS	87		25 - 150			12/06/24 12:01	12/10/24 15:23		1
M2-4:2 FTS	143		25 - 150			12/06/24 12:01	12/10/24 15:23		1
M2-6:2 FTS	132		25 - 150			12/06/24 12:01	12/10/24 15:23		1
M2-8:2 FTS	162 *5+		25 - 150			12/06/24 12:01	12/10/24 15:23		1
13C2 10:2 FTS	311 *5+		25 - 150			12/06/24 12:01	12/10/24 15:23		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35958, MSB40165, P18**

**Lab Sample ID: 320-117508-17**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Total PFOA	ND		1.0	0.20	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.10	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.27	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Total PFHxS	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>260</b>	<b>E I</b>		2.5	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
Br-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg	12/06/24 12:01	12/10/24 15:42		1
<b>Total PFOS</b>	<b>260</b>			2.5	0.20	ug/Kg	12/06/24 12:01	12/10/24 15:42	1
4:2 FTS	ND	*1		1.0	0.27	ug/Kg	12/06/24 12:01	12/10/24 15:42	1
6:2 FTS	ND			1.0	0.42	ug/Kg	12/06/24 12:01	12/10/24 15:42	1
8:2 FTS	ND			1.0	0.10	ug/Kg	12/06/24 12:01	12/10/24 15:42	1
10:2 FTS	ND			1.0	0.10	ug/Kg	12/06/24 12:01	12/10/24 15:42	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	46		25 - 150				12/06/24 12:01	12/10/24 15:42	1
13C5 PFPeA	72		25 - 150				12/06/24 12:01	12/10/24 15:42	1
13C2 PFHxA	91		25 - 150				12/06/24 12:01	12/10/24 15:42	1
13C4 PFHpA	97		25 - 150				12/06/24 12:01	12/10/24 15:42	1
13C4 PFOA	91		25 - 150				12/06/24 12:01	12/10/24 15:42	1
13C5 PFNA	85		25 - 150				12/06/24 12:01	12/10/24 15:42	1
13C2 PFDA	106		25 - 150				12/06/24 12:01	12/10/24 15:42	1
13C2 PFUnA	97		25 - 150				12/06/24 12:01	12/10/24 15:42	1
13C3 PFBS	86		25 - 150				12/06/24 12:01	12/10/24 15:42	1
18O2 PFHxS	106		25 - 150				12/06/24 12:01	12/10/24 15:42	1
13C4 PFOS	99		25 - 150				12/06/24 12:01	12/10/24 15:42	1
M2-4:2 FTS	141		25 - 150				12/06/24 12:01	12/10/24 15:42	1
M2-6:2 FTS	98		25 - 150				12/06/24 12:01	12/10/24 15:42	1
M2-8:2 FTS	108		25 - 150				12/06/24 12:01	12/10/24 15:42	1
13C2 10:2 FTS	448	*5+	25 - 150				12/06/24 12:01	12/10/24 15:42	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35816, MSB30670, P19**

**Lab Sample ID: 320-117508-18**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.51	0.12	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
Perfluoropentanoic acid (PFPeA)	ND		0.51	0.089	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
Perfluorohexanoic acid (PFHxA)	ND		0.51	0.14	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
Perfluoroheptanoic acid (PFHpA)	ND		0.51	0.059	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>L-Perfluorooctanoic acid</b>	<b>0.20 J</b>		0.51	0.10	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
Br-Perfluorooctanoic acid	ND		0.51	0.10	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>Total PFOA</b>	<b>0.20 J</b>		0.51	0.10	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>5.2</b>		0.51	0.089	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>4.6</b>		0.51	0.053	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>1.4</b>		0.51	0.14	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.51	0.087	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.51	0.092	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
Br-Perfluorohexanesulfonic acid	ND		0.51	0.076	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>Total PFHxS</b>	<b>0.22 J</b>		0.51	0.076	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.22 J</b>		0.51	0.076	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.27 J</b>		0.51	0.094	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>L-Perfluorooctanesulfonic acid</b>	<b>330 E I</b>		1.3	0.10	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>Br-Perfluorooctanesulfonic acid</b>	<b>4.3</b>		1.3	0.10	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>Total PFOS</b>	<b>330</b>		1.3	0.10	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
4:2 FTS	ND *1		0.51	0.14	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
6:2 FTS	ND		0.51	0.22	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>8:2 FTS</b>	<b>0.062 J</b>		0.51	0.051	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>10:2 FTS</b>	<b>0.13 J</b>		0.51	0.052	ug/Kg		12/06/24 12:01	12/11/24 16:51	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	55		25 - 150				12/06/24 12:01	12/11/24 16:51	1
13C5 PFPeA	84		25 - 150				12/06/24 12:01	12/11/24 16:51	1
13C2 PFHxA	90		25 - 150				12/06/24 12:01	12/11/24 16:51	1
13C4 PFHpA	107		25 - 150				12/06/24 12:01	12/11/24 16:51	1
13C4 PFOA	93		25 - 150				12/06/24 12:01	12/11/24 16:51	1
13C5 PFNA	69		25 - 150				12/06/24 12:01	12/11/24 16:51	1
13C2 PFDA	126		25 - 150				12/06/24 12:01	12/11/24 16:51	1
13C2 PFUnA	143		25 - 150				12/06/24 12:01	12/11/24 16:51	1
13C3 PFBS	88		25 - 150				12/06/24 12:01	12/11/24 16:51	1
18O2 PFHxS	111		25 - 150				12/06/24 12:01	12/11/24 16:51	1
13C4 PFOS	98		25 - 150				12/06/24 12:01	12/11/24 16:51	1
M2-4:2 FTS	171 *5+		25 - 150				12/06/24 12:01	12/11/24 16:51	1
M2-6:2 FTS	159 *5+		25 - 150				12/06/24 12:01	12/11/24 16:51	1
M2-8:2 FTS	141		25 - 150				12/06/24 12:01	12/11/24 16:51	1
13C2 10:2 FTS	479 *5+		25 - 150				12/06/24 12:01	12/11/24 16:51	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35804, MSB30716, P20**

**Lab Sample ID: 320-117508-19**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.93	0.22	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
Perfluoropentanoic acid (PFPeA)	ND		0.93	0.16	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
Perfluorohexanoic acid (PFHxA)	ND		0.93	0.26	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
Perfluoroheptanoic acid (PFHpA)	ND		0.93	0.11	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>L-Perfluorooctanoic acid</b>	<b>0.33 J</b>		0.93	0.19	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
Br-Perfluorooctanoic acid	ND		0.93	0.19	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>Total PFOA</b>	<b>0.33 J</b>		0.93	0.19	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>13</b>		0.93	0.16	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>14</b>		0.93	0.096	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>3.0</b>		0.93	0.25	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.93	0.16	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.93	0.17	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>0.42 J</b>		0.93	0.14	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>Total PFHxS</b>	<b>5.3</b>		0.93	0.14	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>4.9</b>		0.93	0.14	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>1.4</b>		0.93	0.17	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>490 E I</b>		2.3	0.19	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>26</b>		2.3	0.19	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>Total PFOS</b>	<b>510</b>		2.3	0.19	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
4:2 FTS	ND *1		0.93	0.25	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
6:2 FTS	ND		0.93	0.40	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>8:2 FTS</b>	<b>0.58 J</b>		0.93	0.093	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>10:2 FTS</b>	<b>0.34 J</b>		0.93	0.094	ug/Kg	12/06/24	12:01	12/11/24 17:11	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
13C4 PFBA	37		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
13C5 PFPeA	64		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
13C2 PFHxA	94		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
13C4 PFHpA	119		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
13C4 PFOA	94		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
13C5 PFNA	84		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
13C2 PFDA	124		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
13C2 PFUnA	140		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
13C3 PFBS	78		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
18O2 PFHxS	105		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
13C4 PFOS	97		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
M2-4:2 FTS	232 *5+		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
M2-6:2 FTS	242 *5+		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
M2-8:2 FTS	271 *5+		25 - 150			12/06/24 12:01	12/11/24 17:11	1	
13C2 10:2 FTS	451 *5+		25 - 150			12/06/24 12:01	12/11/24 17:11	1	

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35876, MSB39746, P22**

**Lab Sample ID: 320-117508-20**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.28	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
<b>L-Perfluoroctanoic acid</b>	<b>0.27 J</b>		1.0	0.20	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
<b>Total PFOA</b>	<b>0.27 J</b>		1.0	0.20	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>3.9</b>		1.0	0.18	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.0</b>		1.0	0.10	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.34 J</b>		1.0	0.27	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
Total PFHxS	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>620 E I</b>		2.5	0.21	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.76 J</b>		2.5	0.21	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
<b>Total PFOS</b>	<b>620</b>		2.5	0.21	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
4:2 FTS	ND *1		1.0	0.27	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
6:2 FTS	ND		1.0	0.43	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
8:2 FTS	ND		1.0	0.10	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
10:2 FTS	ND		1.0	0.10	ug/Kg	12/06/24 12:01	12/11/24 17:49		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	58		25 - 150			12/06/24 12:01	12/11/24 17:49		1
13C5 PFPeA	86		25 - 150			12/06/24 12:01	12/11/24 17:49		1
13C2 PFHxA	119		25 - 150			12/06/24 12:01	12/11/24 17:49		1
13C4 PFHpA	104		25 - 150			12/06/24 12:01	12/11/24 17:49		1
13C4 PFOA	90		25 - 150			12/06/24 12:01	12/11/24 17:49		1
13C5 PFNA	70		25 - 150			12/06/24 12:01	12/11/24 17:49		1
13C2 PFDA	129		25 - 150			12/06/24 12:01	12/11/24 17:49		1
13C2 PFUnA	122		25 - 150			12/06/24 12:01	12/11/24 17:49		1
13C3 PFBS	101		25 - 150			12/06/24 12:01	12/11/24 17:49		1
18O2 PFHxS	118		25 - 150			12/06/24 12:01	12/11/24 17:49		1
13C4 PFOS	104		25 - 150			12/06/24 12:01	12/11/24 17:49		1
M2-4:2 FTS	160 *5+		25 - 150			12/06/24 12:01	12/11/24 17:49		1
M2-6:2 FTS	183 *5+		25 - 150			12/06/24 12:01	12/11/24 17:49		1
M2-8:2 FTS	146		25 - 150			12/06/24 12:01	12/11/24 17:49		1
13C2 10:2 FTS	442 *5+		25 - 150			12/06/24 12:01	12/11/24 17:49		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35910, MSB39349, P23**

**Lab Sample ID: 320-117508-21**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.28	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
L-Perfluoroctanoic acid	ND		1.0	0.21	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
Br-Perfluoroctanoic acid	ND		1.0	0.21	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
Total PFOA	ND		1.0	0.21	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
<b>Perfluorononanoic acid (PFNA)</b>	<b>5.0</b>		1.0	0.18	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>1.5</b>		1.0	0.11	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.54 J</b>		1.0	0.28	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.18	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.19	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
<b>Br-Perfluorohexanesulfonic acid</b>	<b>0.36 J</b>		1.0	0.15	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
<b>Total PFHxS</b>	<b>0.47 J</b>		1.0	0.15	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
<b>L-Perfluoroctanesulfonic acid</b>	<b>350 E I</b>		2.6	0.21	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>1.6 J</b>		2.6	0.21	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
<b>Total PFOS</b>	<b>350</b>		2.6	0.21	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
4:2 FTS	ND		1.0	0.27	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
6:2 FTS	ND		1.0	0.44	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
8:2 FTS	ND		1.0	0.10	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
<b>10:2 FTS</b>	<b>0.10 J</b>		1.0	0.10	ug/Kg	12/10/24 03:40	12/12/24 23:53		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	49		25 - 150			12/10/24 03:40	12/12/24 23:53		1
13C5 PFPeA	64		25 - 150			12/10/24 03:40	12/12/24 23:53		1
13C2 PFHxA	93		25 - 150			12/10/24 03:40	12/12/24 23:53		1
13C4 PFHpA	91		25 - 150			12/10/24 03:40	12/12/24 23:53		1
13C4 PFOA	83		25 - 150			12/10/24 03:40	12/12/24 23:53		1
13C5 PFNA	84		25 - 150			12/10/24 03:40	12/12/24 23:53		1
13C2 PFDA	99		25 - 150			12/10/24 03:40	12/12/24 23:53		1
13C2 PFUnA	117		25 - 150			12/10/24 03:40	12/12/24 23:53		1
13C3 PFBS	80		25 - 150			12/10/24 03:40	12/12/24 23:53		1
18O2 PFHxS	106		25 - 150			12/10/24 03:40	12/12/24 23:53		1
13C4 PFOS	96		25 - 150			12/10/24 03:40	12/12/24 23:53		1
M2-4:2 FTS	213 *5+		25 - 150			12/10/24 03:40	12/12/24 23:53		1
M2-6:2 FTS	127		25 - 150			12/10/24 03:40	12/12/24 23:53		1
M2-8:2 FTS	140		25 - 150			12/10/24 03:40	12/12/24 23:53		1
13C2 10:2 FTS	559 *5+		25 - 150			12/10/24 03:40	12/12/24 23:53		1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35817, MSB30650, P24**

**Lab Sample ID: 320-117508-22**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.1	0.25	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
Perfluoropentanoic acid (PFPeA)	ND		1.1	0.18	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
Perfluorohexanoic acid (PFHxA)	ND		1.1	0.29	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
Perfluoroheptanoic acid (PFHpA)	ND		1.1	0.12	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
L-Perfluoroctanoic acid	ND		1.1	0.21	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
Br-Perfluoroctanoic acid	ND		1.1	0.21	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
Total PFOA	ND		1.1	0.21	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>2.9</b>		1.1	0.18	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>2.9</b>		1.1	0.11	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>0.77 J</b>		1.1	0.29	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.1	0.18	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.1	0.19	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
Br-Perfluorohexanesulfonic acid	ND		1.1	0.16	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
<b>Total PFHxS</b>	<b>0.22 J</b>		1.1	0.16	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
<b>L-Perfluorohexanesulfonic acid</b>	<b>0.22 J</b>		1.1	0.16	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>0.20 J</b>		1.1	0.19	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>540 E I</b>		2.6	0.21	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>3.5</b>		2.6	0.21	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
<b>Total PFOS</b>	<b>540</b>		2.6	0.21	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
4:2 FTS	ND		1.1	0.28	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
6:2 FTS	ND		1.1	0.45	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
8:2 FTS	ND		1.1	0.11	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
<b>10:2 FTS</b>	<b>0.13 J</b>		1.1	0.11	ug/Kg		12/10/24 03:40	12/13/24 00:13	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	67		25 - 150				12/10/24 03:40	12/13/24 00:13	1
13C5 PFPeA	75		25 - 150				12/10/24 03:40	12/13/24 00:13	1
13C2 PFHxA	104		25 - 150				12/10/24 03:40	12/13/24 00:13	1
13C4 PFHpA	98		25 - 150				12/10/24 03:40	12/13/24 00:13	1
13C4 PFOA	90		25 - 150				12/10/24 03:40	12/13/24 00:13	1
13C5 PFNA	82		25 - 150				12/10/24 03:40	12/13/24 00:13	1
13C2 PFDA	123		25 - 150				12/10/24 03:40	12/13/24 00:13	1
13C2 PFUnA	138		25 - 150				12/10/24 03:40	12/13/24 00:13	1
13C3 PFBS	95		25 - 150				12/10/24 03:40	12/13/24 00:13	1
18O2 PFHxS	106		25 - 150				12/10/24 03:40	12/13/24 00:13	1
13C4 PFOS	103		25 - 150				12/10/24 03:40	12/13/24 00:13	1
M2-4:2 FTS	162 *5+		25 - 150				12/10/24 03:40	12/13/24 00:13	1
M2-6:2 FTS	146		25 - 150				12/10/24 03:40	12/13/24 00:13	1
M2-8:2 FTS	138		25 - 150				12/10/24 03:40	12/13/24 00:13	1
13C2 10:2 FTS	605 *5+		25 - 150				12/10/24 03:40	12/13/24 00:13	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: Pool 25, Duck PFAS, P25**

**Lab Sample ID: 320-117508-23**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.1	0.27	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
Perfluoropentanoic acid (PFPeA)	ND		1.1	0.20	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
Perfluorohexanoic acid (PFHxA)	ND		1.1	0.31	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
Perfluoroheptanoic acid (PFHpA)	ND		1.1	0.13	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
L-Perfluoroctanoic acid	ND		1.1	0.23	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
Br-Perfluoroctanoic acid	ND		1.1	0.23	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
Total PFOA	ND		1.1	0.23	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.30</b>	<b>J</b>	1.1	0.20	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.36</b>	<b>J</b>	1.1	0.12	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
Perfluoroundecanoic acid (PFUnA)	ND		1.1	0.31	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.1	0.19	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.1	0.20	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
Br-Perfluorohexanesulfonic acid	ND		1.1	0.17	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
Total PFHxS	ND		1.1	0.17	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
L-Perfluorohexanesulfonic acid	ND		1.1	0.17	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.1	0.21	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>590</b>	<b>E I</b>	2.8	0.23	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.30</b>	<b>J</b>	2.8	0.23	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
<b>Total PFOS</b>	<b>590</b>		2.8	0.23	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
4:2 FTS	ND		1.1	0.30	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
6:2 FTS	ND		1.1	0.48	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
8:2 FTS	ND		1.1	0.11	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
10:2 FTS	ND		1.1	0.11	ug/Kg		12/10/24 03:40	12/13/24 00:32	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	70		25 - 150				12/10/24 03:40	12/13/24 00:32	1
13C5 PFPeA	89		25 - 150				12/10/24 03:40	12/13/24 00:32	1
13C2 PFHxA	106		25 - 150				12/10/24 03:40	12/13/24 00:32	1
13C4 PFHpA	108		25 - 150				12/10/24 03:40	12/13/24 00:32	1
13C4 PFOA	93		25 - 150				12/10/24 03:40	12/13/24 00:32	1
13C5 PFNA	74		25 - 150				12/10/24 03:40	12/13/24 00:32	1
13C2 PFDA	113		25 - 150				12/10/24 03:40	12/13/24 00:32	1
13C2 PFUnA	100		25 - 150				12/10/24 03:40	12/13/24 00:32	1
13C3 PFBS	88		25 - 150				12/10/24 03:40	12/13/24 00:32	1
18O2 PFHxS	110		25 - 150				12/10/24 03:40	12/13/24 00:32	1
13C4 PFOS	101		25 - 150				12/10/24 03:40	12/13/24 00:32	1
M2-4:2 FTS	172	*5+	25 - 150				12/10/24 03:40	12/13/24 00:32	1
M2-6:2 FTS	168	*5+	25 - 150				12/10/24 03:40	12/13/24 00:32	1
M2-8:2 FTS	136		25 - 150				12/10/24 03:40	12/13/24 00:32	1
13C2 10:2 FTS	581	*5+	25 - 150				12/10/24 03:40	12/13/24 00:32	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK282630, MSB50169, P26**

**Lab Sample ID: 320-117508-24**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.5	0.35	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Perfluoropentanoic acid (PFPeA)	ND		1.5	0.26	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Perfluorohexanoic acid (PFHxA)	ND		1.5	0.40	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5	0.17	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
L-Perfluoroctanoic acid	ND		1.5	0.30	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Br-Perfluoroctanoic acid	ND		1.5	0.30	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Total PFOA	ND		1.5	0.30	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.68</b>	<b>J</b>	1.5	0.26	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.29</b>	<b>J</b>	1.5	0.15	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5	0.40	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5	0.25	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5	0.27	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Br-Perfluorohexanesulfonic acid	ND		1.5	0.22	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Total PFHxS	ND		1.5	0.22	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
L-Perfluorohexanesulfonic acid	ND		1.5	0.22	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5	0.27	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>6.2</b>	<b>I</b>	3.7	0.30	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Br-Perfluoroctanesulfonic acid	ND		3.7	0.30	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
<b>Total PFOS</b>	<b>6.2</b>		3.7	0.30	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
4:2 FTS	ND		1.5	0.39	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
6:2 FTS	ND		1.5	0.62	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
8:2 FTS	ND		1.5	0.15	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
10:2 FTS	ND		1.5	0.15	ug/Kg		12/10/24 03:40	12/13/24 00:51	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	73		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
13C5 PFPeA	75		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
13C2 PFHxA	93		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
13C4 PFHpA	91		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
13C4 PFOA	85		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
13C5 PFNA	92		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
13C2 PFDA	103		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
13C2 PFUnA	86		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
13C3 PFBS	88		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
18O2 PFHxS	107		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
13C4 PFOS	99		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
M2-4:2 FTS	240	*5+	25 - 150			12/10/24 03:40	12/13/24 00:51	1	
M2-6:2 FTS	141		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
M2-8:2 FTS	148		25 - 150			12/10/24 03:40	12/13/24 00:51	1	
13C2 10:2 FTS	374	*5+	25 - 150			12/10/24 03:40	12/13/24 00:51	1	

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK276851, MSB46239, P28**

**Lab Sample ID: 320-117508-25**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.3	0.30	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
Perfluoropentanoic acid (PPeA)	ND		1.3	0.22	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
Perfluorohexanoic acid (PFHxA)	ND		1.3	0.35	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
Perfluoroheptanoic acid (PFHpA)	ND		1.3	0.15	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
L-Perfluoroctanoic acid	ND		1.3	0.26	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
Br-Perfluoroctanoic acid	ND		1.3	0.26	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
Total PFOA	ND		1.3	0.26	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.76 J</b>		1.3	0.22	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.80 J</b>		1.3	0.13	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
Perfluoroundecanoic acid (PFUnA)	ND		1.3	0.35	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.3	0.22	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
Perfluoropentanesulfonic acid (PPeS)	ND		1.3	0.23	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
Br-Perfluorohexanesulfonic acid	ND		1.3	0.19	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
Total PFHxS	ND		1.3	0.19	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
L-Perfluorohexanesulfonic acid	ND		1.3	0.19	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.3	0.24	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>300 E I</b>		3.2	0.26	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.59 J</b>		3.2	0.26	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
<b>Total PFOS</b>	<b>300</b>		3.2	0.26	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
4:2 FTS	ND		1.3	0.34	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
6:2 FTS	ND		1.3	0.54	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
8:2 FTS	ND		1.3	0.13	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
10:2 FTS	ND		1.3	0.13	ug/Kg		12/10/24 03:40	12/13/24 01:11	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	61		25 - 150				12/10/24 03:40	12/13/24 01:11	1
13C5 PPFPeA	71		25 - 150				12/10/24 03:40	12/13/24 01:11	1
13C2 PFHxA	90		25 - 150				12/10/24 03:40	12/13/24 01:11	1
13C4 PFHpA	85		25 - 150				12/10/24 03:40	12/13/24 01:11	1
13C4 PFOA	81		25 - 150				12/10/24 03:40	12/13/24 01:11	1
13C5 PFNA	85		25 - 150				12/10/24 03:40	12/13/24 01:11	1
13C2 PFDA	96		25 - 150				12/10/24 03:40	12/13/24 01:11	1
13C2 PFUnA	102		25 - 150				12/10/24 03:40	12/13/24 01:11	1
13C3 PFBS	80		25 - 150				12/10/24 03:40	12/13/24 01:11	1
18O2 PFHxS	97		25 - 150				12/10/24 03:40	12/13/24 01:11	1
13C4 PFOS	91		25 - 150				12/10/24 03:40	12/13/24 01:11	1
M2-4:2 FTS	124		25 - 150				12/10/24 03:40	12/13/24 01:11	1
M2-6:2 FTS	100		25 - 150				12/10/24 03:40	12/13/24 01:11	1
M2-8:2 FTS	96		25 - 150				12/10/24 03:40	12/13/24 01:11	1
13C2 10:2 FTS	403 *5+		25 - 150				12/10/24 03:40	12/13/24 01:11	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK282547, MSB49842, P29**

**Lab Sample ID: 320-117508-26**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.91	0.21	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
Perfluoropentanoic acid (PFPeA)	ND		0.91	0.16	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
Perfluorohexanoic acid (PFHxA)	ND		0.91	0.25	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
Perfluoroheptanoic acid (PFHpA)	ND		0.91	0.11	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
<b>L-Perfluoroctanoic acid</b>	<b>0.22 J</b>		0.91	0.18	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
Br-Perfluoroctanoic acid	ND		0.91	0.18	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
<b>Total PFOA</b>	<b>0.22 J</b>		0.91	0.18	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>6.6</b>		0.91	0.16	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>2.3</b>		0.91	0.094	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>2.2</b>		0.91	0.25	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.91	0.15	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
Perfluoropentanesulfonic acid (PFPeS)	ND		0.91	0.16	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
Br-Perfluorohexanesulfonic acid	ND		0.91	0.13	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
Total PFHxS	ND		0.91	0.13	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
L-Perfluorohexanesulfonic acid	ND		0.91	0.13	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		0.91	0.17	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>380 E I</b>		2.3	0.18	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.56 J</b>		2.3	0.18	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
<b>Total PFOS</b>	<b>380</b>		2.3	0.18	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
4:2 FTS	ND		0.91	0.24	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
6:2 FTS	ND		0.91	0.39	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
8:2 FTS	ND		0.91	0.091	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
10:2 FTS	ND		0.91	0.092	ug/Kg		12/10/24 03:40	12/13/24 01:30	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	51		25 - 150				12/10/24 03:40	12/13/24 01:30	1
13C5 PFPeA	78		25 - 150				12/10/24 03:40	12/13/24 01:30	1
13C2 PFHxA	87		25 - 150				12/10/24 03:40	12/13/24 01:30	1
13C4 PFHpA	100		25 - 150				12/10/24 03:40	12/13/24 01:30	1
13C4 PFOA	91		25 - 150				12/10/24 03:40	12/13/24 01:30	1
13C5 PFNA	84		25 - 150				12/10/24 03:40	12/13/24 01:30	1
13C2 PFDA	104		25 - 150				12/10/24 03:40	12/13/24 01:30	1
13C2 PFUnA	104		25 - 150				12/10/24 03:40	12/13/24 01:30	1
13C3 PFBS	81		25 - 150				12/10/24 03:40	12/13/24 01:30	1
18O2 PFHxS	110		25 - 150				12/10/24 03:40	12/13/24 01:30	1
13C4 PFOS	104		25 - 150				12/10/24 03:40	12/13/24 01:30	1
M2-4:2 FTS	188 *5+		25 - 150				12/10/24 03:40	12/13/24 01:30	1
M2-6:2 FTS	151 *5+		25 - 150				12/10/24 03:40	12/13/24 01:30	1
M2-8:2 FTS	139		25 - 150				12/10/24 03:40	12/13/24 01:30	1
13C2 10:2 FTS	560 *5+		25 - 150				12/10/24 03:40	12/13/24 01:30	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK276660, MSB45963, P30**

**Lab Sample ID: 320-117508-27**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.7	0.41	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.30	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.47	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.20	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
L-Perfluoroctanoic acid	ND		1.7	0.35	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Br-Perfluoroctanoic acid	ND		1.7	0.35	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Total PFOA	ND		1.7	0.35	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.30	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.18	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.47	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.29	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.7	0.31	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Br-Perfluorohexanesulfonic acid	ND		1.7	0.26	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Total PFHxS	ND		1.7	0.26	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
L-Perfluorohexanesulfonic acid	ND		1.7	0.26	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7	0.32	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>720</b>	<b>E I</b>		4.3	0.35 ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Br-Perfluoroctanesulfonic acid	ND		4.3	0.35	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
<b>Total PFOS</b>	<b>720</b>			4.3	0.35 ug/Kg		12/10/24 03:40	12/13/24 01:50	1
4:2 FTS	ND		1.7	0.46	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
6:2 FTS	ND		1.7	0.73	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
8:2 FTS	ND		1.7	0.17	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
10:2 FTS	ND		1.7	0.17	ug/Kg		12/10/24 03:40	12/13/24 01:50	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	75		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
13C5 PFPeA	73		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
13C2 PFHxA	89		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
13C4 PFHpA	86		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
13C4 PFOA	85		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
13C5 PFNA	76		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
13C2 PFDA	93		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
13C2 PFUnA	92		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
13C3 PFBS	80		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
18O2 PFHxS	99		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
13C4 PFOS	91		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
M2-4:2 FTS	106		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
M2-6:2 FTS	127		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
M2-8:2 FTS	93		25 - 150			12/10/24 03:40	12/13/24 01:50	1	
13C2 10:2 FTS	518	*5+	25 - 150			12/10/24 03:40	12/13/24 01:50	1	

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK282696, MSB50223, P31**

**Lab Sample ID: 320-117508-28**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.8	0.41	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.31	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	0.48	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	0.20	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
L-Perfluoroctanoic acid	ND		1.8	0.35	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
Br-Perfluoroctanoic acid	ND		1.8	0.35	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
Total PFOA	ND		1.8	0.35	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
<b>Perfluorononanoic acid (PFNA)</b>	<b>0.33</b>	<b>J</b>	1.8	0.31	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>0.90</b>	<b>J</b>	1.8	0.18	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.48	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.30	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.8	0.32	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
Br-Perfluorohexanesulfonic acid	ND		1.8	0.26	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
Total PFHxS	ND		1.8	0.26	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
L-Perfluorohexanesulfonic acid	ND		1.8	0.26	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8	0.32	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
<b>L-Perfluoroctanesulfonic acid</b>	<b>350</b>	<b>E I</b>	4.4	0.36	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
<b>Br-Perfluoroctanesulfonic acid</b>	<b>0.90</b>	<b>J</b>	4.4	0.36	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
<b>Total PFOS</b>	<b>350</b>		4.4	0.36	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
4:2 FTS	ND		1.8	0.47	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
6:2 FTS	ND		1.8	0.74	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
8:2 FTS	ND		1.8	0.18	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
10:2 FTS	ND		1.8	0.18	ug/Kg		12/10/24 03:40	12/13/24 02:29	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	80		25 - 150				12/10/24 03:40	12/13/24 02:29	1
13C5 PFPeA	98		25 - 150				12/10/24 03:40	12/13/24 02:29	1
13C2 PFHxA	110		25 - 150				12/10/24 03:40	12/13/24 02:29	1
13C4 PFHpA	110		25 - 150				12/10/24 03:40	12/13/24 02:29	1
13C4 PFOA	97		25 - 150				12/10/24 03:40	12/13/24 02:29	1
13C5 PFNA	108		25 - 150				12/10/24 03:40	12/13/24 02:29	1
13C2 PFDA	121		25 - 150				12/10/24 03:40	12/13/24 02:29	1
13C2 PFUnA	120		25 - 150				12/10/24 03:40	12/13/24 02:29	1
13C3 PFBS	108		25 - 150				12/10/24 03:40	12/13/24 02:29	1
18O2 PFHxS	119		25 - 150				12/10/24 03:40	12/13/24 02:29	1
13C4 PFOS	109		25 - 150				12/10/24 03:40	12/13/24 02:29	1
M2-4:2 FTS	265	*5+	25 - 150				12/10/24 03:40	12/13/24 02:29	1
M2-6:2 FTS	207	*5+	25 - 150				12/10/24 03:40	12/13/24 02:29	1
M2-8:2 FTS	158	*5+	25 - 150				12/10/24 03:40	12/13/24 02:29	1
13C2 10:2 FTS	429	*5+	25 - 150				12/10/24 03:40	12/13/24 02:29	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283601, Spat. Cly, Liver, ABJ34298,  
 MSB1011285, P32**

**Lab Sample ID: 320-117508-29**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

**Matrix: Tissue**

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.60	0.14	ug/Kg				1
Perfluoropentanoic acid (PFPeA)	0.33 J		0.60	0.10	ug/Kg	12/10/24 03:40	12/13/24 02:48		1
Perfluorohexanoic acid (PFHxA)	0.69		0.60	0.16	ug/Kg	12/10/24 03:40	12/13/24 02:48		1
Perfluoroheptanoic acid (PFHpA)	1.2		0.60	0.069	ug/Kg	12/10/24 03:40	12/13/24 02:48		1
Perfluorodecanoic acid (PFDA)	29		0.60	0.062	ug/Kg	12/10/24 03:40	12/13/24 02:48		1
Perfluoroundecanoic acid (PFUnA)	2.7		0.60	0.16	ug/Kg	12/10/24 03:40	12/13/24 02:48		1
Perfluorobutanesulfonic acid (PFBS)	0.94		0.60	0.10	ug/Kg	12/10/24 03:40	12/13/24 02:48		1
Perfluoropentanesulfonic acid (PFPeS)	31		0.60	0.11	ug/Kg	12/10/24 03:40	12/13/24 02:48		1
4:2 FTS	ND		0.60	0.16	ug/Kg	12/10/24 03:40	12/13/24 02:48		1
6:2 FTS	0.95		0.60	0.25	ug/Kg	12/10/24 03:40	12/13/24 02:48		1
10:2 FTS	0.15 J		0.60	0.060	ug/Kg	12/10/24 03:40	12/13/24 02:48		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	53		25 - 150				12/10/24 03:40	12/13/24 02:48	1
13C5 PFPeA	71		25 - 150				12/10/24 03:40	12/13/24 02:48	1
13C2 PFHxA	108		25 - 150				12/10/24 03:40	12/13/24 02:48	1
13C4 PFHpA	110		25 - 150				12/10/24 03:40	12/13/24 02:48	1
13C2 PFDA	112		25 - 150				12/10/24 03:40	12/13/24 02:48	1
13C2 PFUnA	153 *5+		25 - 150				12/10/24 03:40	12/13/24 02:48	1
13C3 PFBS	99		25 - 150				12/10/24 03:40	12/13/24 02:48	1
M2-4:2 FTS	147		25 - 150				12/10/24 03:40	12/13/24 02:48	1
M2-6:2 FTS	133		25 - 150				12/10/24 03:40	12/13/24 02:48	1
13C2 10:2 FTS	632 *5+		25 - 150				12/10/24 03:40	12/13/24 02:48	1

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluoroctanoic acid	110		60	12	ug/Kg				100
Br-Perfluoroctanoic acid	ND		60	12	ug/Kg	12/10/24 03:40	12/17/24 08:32		100
Total PFOA	110		60	12	ug/Kg	12/10/24 03:40	12/17/24 08:32		100
Perfluorononanoic acid (PFNA)	340		60	10	ug/Kg	12/10/24 03:40	12/17/24 08:32		100
Br-Perfluorohexanesulfonic acid	140		60	8.9	ug/Kg	12/10/24 03:40	12/17/24 08:32		100
Total PFHxS	3100		60	8.9	ug/Kg	12/10/24 03:40	12/17/24 08:32		100
L-Perfluorohexanesulfonic acid	2900		60	8.9	ug/Kg	12/10/24 03:40	12/17/24 08:32		100
Perfluoroheptanesulfonic acid (PFHpS)	330		60	11	ug/Kg	12/10/24 03:40	12/17/24 08:32		100
L-Perfluoroctanesulfonic acid	11000 E		150	12	ug/Kg	12/10/24 03:40	12/17/24 08:32		100
Br-Perfluoroctanesulfonic acid	3300		150	12	ug/Kg	12/10/24 03:40	12/17/24 08:32		100
Total PFOS	15000		150	12	ug/Kg	12/10/24 03:40	12/17/24 08:32		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOA	95		25 - 150				12/10/24 03:40	12/17/24 08:32	100
13C5 PFNA	100		25 - 150				12/10/24 03:40	12/17/24 08:32	100
18O2 PFHxS	133		25 - 150				12/10/24 03:40	12/17/24 08:32	100
13C4 PFOS	95		25 - 150				12/10/24 03:40	12/17/24 08:32	100

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	11		0.60	0.060	ug/Kg		12/10/24 03:40	12/16/24 20:53	1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283601, Spat. Cly, Liver, ABJ34298,  
MSB1011285, P32**

**Lab Sample ID: 320-117508-29**

Date Collected: 12/04/24 00:00  
Date Received: 12/05/24 09:35

Matrix: Tissue

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	123		25 - 150	12/10/24 03:40	12/16/24 20:53	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283602, JLW125, S. Calypeata, L,  
 MSB1011279, P33**

**Lab Sample ID: 320-117508-30**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

**Matrix: Tissue**

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.9		0.98	0.23	ug/Kg		12/10/24 03:40	12/13/24 03:07	1
Perfluoropentanoic acid (PFPeA)	0.38 J		0.98	0.17	ug/Kg		12/10/24 03:40	12/13/24 03:07	1
Perfluorohexanoic acid (PFHxA)	0.59 J		0.98	0.27	ug/Kg		12/10/24 03:40	12/13/24 03:07	1
Perfluoroheptanoic acid (PFHpA)	0.53 J		0.98	0.11	ug/Kg		12/10/24 03:40	12/13/24 03:07	1
L-Perfluorooctanoic acid	120		98	20	ug/Kg		12/10/24 03:40	12/21/24 00:33	100
Br-Perfluorooctanoic acid	ND		98	20	ug/Kg		12/10/24 03:40	12/21/24 00:33	100
<b>Total PFOA</b>	<b>120</b>		<b>98</b>	<b>20</b>	<b>ug/Kg</b>		<b>12/10/24 03:40</b>	<b>12/21/24 00:33</b>	<b>100</b>
Perfluorononanoic acid (PFNA)	200		98	17	ug/Kg		12/10/24 03:40	12/21/24 00:33	100
Perfluorodecanoic acid (PFDA)	19		0.98	0.10	ug/Kg		12/10/24 03:40	12/13/24 03:07	1
Perfluoroundecanoic acid (PFUnA)	1.4		0.98	0.27	ug/Kg		12/10/24 03:40	12/13/24 03:07	1
Perfluorobutanesulfonic acid (PFBS)	0.69 J		0.98	0.17	ug/Kg		12/10/24 03:40	12/13/24 03:07	1
Perfluoropentanesulfonic acid (PFPeS)	21		0.98	0.18	ug/Kg		12/10/24 03:40	12/13/24 03:07	1
Br-Perfluorohexanesulfonic acid	140		98	15	ug/Kg		12/10/24 03:40	12/21/24 00:33	100
<b>Total PFHxS</b>	<b>1800</b>		<b>98</b>	<b>15</b>	<b>ug/Kg</b>		<b>12/10/24 03:40</b>	<b>12/21/24 00:33</b>	<b>100</b>
L-Perfluorohexanesulfonic acid	1600		98	15	ug/Kg		12/10/24 03:40	12/21/24 00:33	100
Perfluoroheptanesulfonic acid (PFHpS)	120		98	18	ug/Kg		12/10/24 03:40	12/21/24 00:33	100
L-Perfluoroctanesulfonic acid	5400		250	20	ug/Kg		12/10/24 03:40	12/21/24 00:33	100
Br-Perfluoroctanesulfonic acid	1500		250	20	ug/Kg		12/10/24 03:40	12/21/24 00:33	100
<b>Total PFOS</b>	<b>6900</b>		<b>250</b>	<b>20</b>	<b>ug/Kg</b>		<b>12/10/24 03:40</b>	<b>12/21/24 00:33</b>	<b>100</b>
4:2 FTS	ND		0.98	0.26	ug/Kg		12/10/24 03:40	12/13/24 03:07	1
<b>6:2 FTS</b>	<b>0.42 J</b>		<b>0.98</b>	<b>0.42</b>	<b>ug/Kg</b>		<b>12/10/24 03:40</b>	<b>12/13/24 03:07</b>	<b>1</b>
<b>10:2 FTS</b>	<b>0.13 J</b>		<b>0.98</b>	<b>0.099</b>	<b>ug/Kg</b>		<b>12/10/24 03:40</b>	<b>12/13/24 03:07</b>	<b>1</b>
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	70		25 - 150				12/10/24 03:40	12/13/24 03:07	1
13C5 PFPeA	95		25 - 150				12/10/24 03:40	12/13/24 03:07	1
13C2 PFHxA	112		25 - 150				12/10/24 03:40	12/13/24 03:07	1
13C4 PFHpA	106		25 - 150				12/10/24 03:40	12/13/24 03:07	1
13C4 PFOA	80		25 - 150				12/10/24 03:40	12/21/24 00:33	100
13C5 PFNA	94		25 - 150				12/10/24 03:40	12/21/24 00:33	100
13C2 PFDA	120		25 - 150				12/10/24 03:40	12/13/24 03:07	1
13C2 PFUnA	135		25 - 150				12/10/24 03:40	12/13/24 03:07	1
13C3 PFBS	110		25 - 150				12/10/24 03:40	12/13/24 03:07	1
18O2 PFHxS	96		25 - 150				12/10/24 03:40	12/21/24 00:33	100
13C4 PFOS	66		25 - 150				12/10/24 03:40	12/13/24 03:07	1
13C4 PFOS	90		25 - 150				12/10/24 03:40	12/21/24 00:33	100
M2-4:2 FTS	165 *5+		25 - 150				12/10/24 03:40	12/13/24 03:07	1
M2-6:2 FTS	132		25 - 150				12/10/24 03:40	12/13/24 03:07	1
13C2 10:2 FTS	594 *5+		25 - 150				12/10/24 03:40	12/13/24 03:07	1

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>8:2 FTS</b>	<b>6.2</b>		<b>0.98</b>	<b>0.098</b>	<b>ug/Kg</b>		<b>12/10/24 03:40</b>	<b>12/16/24 16:21</b>	<b>1</b>
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
M2-8:2 FTS	107		25 - 150				12/10/24 03:40	12/16/24 16:21	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283605, Liver, Spatula, MSB1011318, P34**

**Lab Sample ID: 320-117508-31**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.1		0.86	0.20	ug/Kg		12/10/24 03:40	12/13/24 03:27	1
Perfluoropentanoic acid (PFPeA)	0.50	J	0.86	0.15	ug/Kg		12/10/24 03:40	12/13/24 03:27	1
Perfluorohexanoic acid (PFHxA)	0.88		0.86	0.24	ug/Kg		12/10/24 03:40	12/13/24 03:27	1
Perfluoroheptanoic acid (PFHpA)	1.6		0.86	0.10	ug/Kg		12/10/24 03:40	12/13/24 03:27	1
Perfluorodecanoic acid (PFDA)	16		0.86	0.089	ug/Kg		12/10/24 03:40	12/13/24 03:27	1
Perfluoroundecanoic acid (PFUnA)	1.5		0.86	0.23	ug/Kg		12/10/24 03:40	12/13/24 03:27	1
Perfluorobutanesulfonic acid (PFBS)	1.4		0.86	0.15	ug/Kg		12/10/24 03:40	12/13/24 03:27	1
Perfluoropentanesulfonic acid (PFPeS)	67		0.86	0.16	ug/Kg		12/10/24 03:40	12/13/24 03:27	1
4:2 FTS	ND		0.86	0.23	ug/Kg		12/10/24 03:40	12/13/24 03:27	1
6:2 FTS	0.82	J	0.86	0.37	ug/Kg		12/10/24 03:40	12/13/24 03:27	1
10:2 FTS	0.12	J I	0.86	0.087	ug/Kg		12/10/24 03:40	12/13/24 03:27	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	57		25 - 150				12/10/24 03:40	12/13/24 03:27	1
13C5 PFPeA	75		25 - 150				12/10/24 03:40	12/13/24 03:27	1
13C2 PFHxA	93		25 - 150				12/10/24 03:40	12/13/24 03:27	1
13C4 PFHpA	91		25 - 150				12/10/24 03:40	12/13/24 03:27	1
13C2 PFDA	103		25 - 150				12/10/24 03:40	12/13/24 03:27	1
13C2 PFUnA	139		25 - 150				12/10/24 03:40	12/13/24 03:27	1
13C3 PFBS	89		25 - 150				12/10/24 03:40	12/13/24 03:27	1
M2-4:2 FTS	125		25 - 150				12/10/24 03:40	12/13/24 03:27	1
M2-6:2 FTS	162	*5+	25 - 150				12/10/24 03:40	12/13/24 03:27	1
13C2 10:2 FTS	572	*5+	25 - 150				12/10/24 03:40	12/13/24 03:27	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanoic acid	130		86	17	ug/Kg		12/10/24 03:40	12/16/24 17:19	100
Br-Perfluorooctanoic acid	ND		86	17	ug/Kg		12/10/24 03:40	12/16/24 17:19	100
Total PFOA	130		86	17	ug/Kg		12/10/24 03:40	12/16/24 17:19	100
Perfluorononanoic acid (PFNA)	150		86	15	ug/Kg		12/10/24 03:40	12/16/24 17:19	100
Br-Perfluorohexanesulfonic acid	180		86	13	ug/Kg		12/10/24 03:40	12/16/24 17:19	100
Total PFHxS	1800		86	13	ug/Kg		12/10/24 03:40	12/16/24 17:19	100
L-Perfluorohexanesulfonic acid	1600		86	13	ug/Kg		12/10/24 03:40	12/16/24 17:19	100
Perfluoroheptanesulfonic acid (PFHpS)	120		86	16	ug/Kg		12/10/24 03:40	12/16/24 17:19	100
L-Perfluoroctanesulfonic acid	5900		220	18	ug/Kg		12/10/24 03:40	12/16/24 17:19	100
Br-Perfluoroctanesulfonic acid	1500		220	18	ug/Kg		12/10/24 03:40	12/16/24 17:19	100
Total PFOS	7400		220	18	ug/Kg		12/10/24 03:40	12/16/24 17:19	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOA	84		25 - 150				12/10/24 03:40	12/16/24 17:19	100
13C5 PFNA	87		25 - 150				12/10/24 03:40	12/16/24 17:19	100
18O2 PFHxS	96		25 - 150				12/10/24 03:40	12/16/24 17:19	100
13C4 PFOS	88		25 - 150				12/10/24 03:40	12/16/24 17:19	100

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	4.8		0.86	0.086	ug/Kg		12/10/24 03:40	12/16/24 21:12	1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283605, Liver, Spatula, MSB1011318, P34**

**Lab Sample ID: 320-117508-31**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
Date Received: 12/05/24 09:35

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-8:2 FTS	104		25 - 150	12/10/24 03:40	12/16/24 21:12	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283606, Spatula, Liver, MSB1011339, P35**

**Lab Sample ID: 320-117508-32**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.94	0.22	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
Perfluoropentanoic acid (PFPeA)	0.18 J		0.94	0.17	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
Perfluorohexanoic acid (PFHxA)	0.30 J		0.94	0.26	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
Perfluoroheptanoic acid (PFHpA)	0.34 J		0.94	0.11	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
L-Perfluoroctanoic acid	70		0.94	0.19	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
Br-Perfluoroctanoic acid	1.1		0.94	0.19	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
Total PFOA	71		0.94	0.19	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
Perfluorodecanoic acid (PFDA)	21		0.94	0.097	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
Perfluoroundecanoic acid (PFUnA)	1.7		0.94	0.26	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
Perfluorobutanesulfonic acid (PFBS)	0.40 J		0.94	0.16	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
Perfluoropentanesulfonic acid (PFPeS)	13		0.94	0.17	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
4:2 FTS	ND		0.94	0.25	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
6:2 FTS	0.59 J		0.94	0.40	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
10:2 FTS	0.16 J		0.94	0.095	ug/Kg		12/10/24 03:40	12/13/24 03:46	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	44		25 - 150				12/10/24 03:40	12/13/24 03:46	1
13C5 PFPeA	67		25 - 150				12/10/24 03:40	12/13/24 03:46	1
13C2 PFHxA	95		25 - 150				12/10/24 03:40	12/13/24 03:46	1
13C4 PFHpA	90		25 - 150				12/10/24 03:40	12/13/24 03:46	1
13C4 PFOA	73		25 - 150				12/10/24 03:40	12/13/24 03:46	1
13C2 PFDA	90		25 - 150				12/10/24 03:40	12/13/24 03:46	1
13C2 PFUnA	124		25 - 150				12/10/24 03:40	12/13/24 03:46	1
13C3 PFBS	79		25 - 150				12/10/24 03:40	12/13/24 03:46	1
M2-4:2 FTS	116		25 - 150				12/10/24 03:40	12/13/24 03:46	1
M2-6:2 FTS	109		25 - 150				12/10/24 03:40	12/13/24 03:46	1
13C2 10:2 FTS	480 *5+		25 - 150				12/10/24 03:40	12/13/24 03:46	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	250		94	17	ug/Kg		12/10/24 03:40	12/16/24 17:39	100
Br-Perfluorohexanesulfonic acid	80 J		94	14	ug/Kg		12/10/24 03:40	12/16/24 17:39	100
Total PFHxS	1700		94	14	ug/Kg		12/10/24 03:40	12/16/24 17:39	100
L-Perfluorohexanesulfonic acid	1700		94	14	ug/Kg		12/10/24 03:40	12/16/24 17:39	100
Perfluoroheptanesulfonic acid (PFHsP)	260		94	17	ug/Kg		12/10/24 03:40	12/16/24 17:39	100
L-Perfluoroctanesulfonic acid	7900		240	19	ug/Kg		12/10/24 03:40	12/16/24 17:39	100
Br-Perfluoroctanesulfonic acid	2200		240	19	ug/Kg		12/10/24 03:40	12/16/24 17:39	100
Total PFOS	10000		240	19	ug/Kg		12/10/24 03:40	12/16/24 17:39	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOA	73		25 - 150				12/10/24 03:40	12/16/24 17:39	100
13C5 PFNA	80		25 - 150				12/10/24 03:40	12/16/24 17:39	100
18O2 PFHxS	88		25 - 150				12/10/24 03:40	12/16/24 17:39	100
13C4 PFOS	77		25 - 150				12/10/24 03:40	12/16/24 17:39	100

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	6.0		0.94	0.094	ug/Kg		12/10/24 03:40	12/16/24 21:32	1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283606, Spatula, Liver, MSB1011339, P35**

**Lab Sample ID: 320-117508-32**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
Date Received: 12/05/24 09:35

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-8:2 FTS	90		25 - 150	12/10/24 03:40	12/16/24 21:32	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283607, S. calypteata, Liver,  
 MSB1011310, P36**

**Lab Sample ID: 320-117508-33**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

**Matrix: Tissue**

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.88	0.21	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
Perfluoropentanoic acid (PFPeA)	0.37 J		0.88	0.15	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
Perfluorohexanoic acid (PFHxA)	0.54 J		0.88	0.24	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
Perfluoroheptanoic acid (PFHpA)	0.61 J		0.88	0.10	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
L-Perfluorooctanoic acid	74		0.88	0.18	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
Br-Perfluorooctanoic acid	0.78 J		0.88	0.18	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
Total PFOA	74		0.88	0.18	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
Perfluorodecanoic acid (PFDA)	34		0.88	0.091	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
Perfluoroundecanoic acid (PFUnA)	2.7		0.88	0.24	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
Perfluorobutanesulfonic acid (PFBS)	1.1		0.88	0.15	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
Perfluoropentanesulfonic acid (PFPeS)	28		0.88	0.16	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
4:2 FTS	ND		0.88	0.24	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
6:2 FTS	0.54 J		0.88	0.38	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
10:2 FTS	0.16 J I		0.88	0.089	ug/Kg		12/10/24 03:40	12/13/24 04:06	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	50		25 - 150				12/10/24 03:40	12/13/24 04:06	1
13C5 PFPeA	71		25 - 150				12/10/24 03:40	12/13/24 04:06	1
13C2 PFHxA	97		25 - 150				12/10/24 03:40	12/13/24 04:06	1
13C4 PFHpA	96		25 - 150				12/10/24 03:40	12/13/24 04:06	1
13C4 PFOA	86		25 - 150				12/10/24 03:40	12/13/24 04:06	1
13C2 PFDA	102		25 - 150				12/10/24 03:40	12/13/24 04:06	1
13C2 PFUnA	146		25 - 150				12/10/24 03:40	12/13/24 04:06	1
13C3 PFBS	88		25 - 150				12/10/24 03:40	12/13/24 04:06	1
M2-4:2 FTS	141		25 - 150				12/10/24 03:40	12/13/24 04:06	1
M2-6:2 FTS	161 *5+		25 - 150				12/10/24 03:40	12/13/24 04:06	1
13C2 10:2 FTS	585 *5+		25 - 150				12/10/24 03:40	12/13/24 04:06	1

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	440		88	15	ug/Kg		12/10/24 03:40	12/16/24 17:58	100
Br-Perfluorohexanesulfonic acid	110		88	13	ug/Kg		12/10/24 03:40	12/16/24 17:58	100
Total PFHxS	3300		88	13	ug/Kg		12/10/24 03:40	12/16/24 17:58	100
L-Perfluorohexanesulfonic acid	3200		88	13	ug/Kg		12/10/24 03:40	12/16/24 17:58	100
Perfluoroheptanesulfonic acid (PFHpS)	340		88	16	ug/Kg		12/10/24 03:40	12/16/24 17:58	100
L-Perfluoroctanesulfonic acid	12000 E		220	18	ug/Kg		12/10/24 03:40	12/16/24 17:58	100
Br-Perfluoroctanesulfonic acid	3800		220	18	ug/Kg		12/10/24 03:40	12/16/24 17:58	100
Total PFOS	16000		220	18	ug/Kg		12/10/24 03:40	12/16/24 17:58	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFNA	96		25 - 150				12/10/24 03:40	12/16/24 17:58	100
18O2 PFHxS	116		25 - 150				12/10/24 03:40	12/16/24 17:58	100
13C4 PFOS	88		25 - 150				12/10/24 03:40	12/16/24 17:58	100

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	11		0.88	0.088	ug/Kg		12/10/24 03:40	12/16/24 21:51	1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283607, S. calypteata, Liver,  
MSB1011310, P36**

**Lab Sample ID: 320-117508-33**

Date Collected: 12/04/24 00:00  
Date Received: 12/05/24 09:35

Matrix: Tissue

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	101		25 - 150	12/10/24 03:40	12/16/24 21:51	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283608, S. calypeata, L, MSB1011324, P37**

**Lab Sample ID: 320-117508-34**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.76	0.18	ug/Kg				1
Perfluoropentanoic acid (PFPeA)	0.59 J		0.76	0.13	ug/Kg	12/10/24 03:40	12/13/24 04:25		1
Perfluorohexanoic acid (PFHxA)	0.81		0.76	0.21	ug/Kg	12/10/24 03:40	12/13/24 04:25		1
Perfluoroheptanoic acid (PFHpA)	0.94		0.76	0.088	ug/Kg	12/10/24 03:40	12/13/24 04:25		1
L-Perfluorooctanoic acid	34		0.76	0.15	ug/Kg	12/10/24 03:40	12/13/24 04:25		1
Br-Perfluorooctanoic acid	0.82		0.76	0.15	ug/Kg	12/10/24 03:40	12/13/24 04:25		1
Total PFOA	35		0.76	0.15	ug/Kg	12/10/24 03:40	12/13/24 04:25		1
Perfluorodecanoic acid (PFDA)	24		0.76	0.078	ug/Kg	12/10/24 03:40	12/13/24 04:25		1
Perfluoroundecanoic acid (PFUnA)	1.7		0.76	0.21	ug/Kg	12/10/24 03:40	12/13/24 04:25		1
Perfluorobutanesulfonic acid (PFBS)	0.95		0.76	0.13	ug/Kg	12/10/24 03:40	12/13/24 04:25		1
Perfluoropentanesulfonic acid (PFPeS)	23		0.76	0.14	ug/Kg	12/10/24 03:40	12/13/24 04:25		1
4:2 FTS	ND		0.76	0.20	ug/Kg	12/10/24 03:40	12/13/24 04:25		1
6:2 FTS	0.95		0.76	0.32	ug/Kg	12/10/24 03:40	12/13/24 04:25		1
10:2 FTS	0.14 J		0.76	0.077	ug/Kg	12/10/24 03:40	12/13/24 04:25		1

### Isotope Dilution

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	52		25 - 150	12/10/24 03:40	12/13/24 04:25	1
13C5 PFPeA	84		25 - 150	12/10/24 03:40	12/13/24 04:25	1
13C2 PFHxA	113		25 - 150	12/10/24 03:40	12/13/24 04:25	1
13C4 PFHpA	112		25 - 150	12/10/24 03:40	12/13/24 04:25	1
13C4 PFOA	94		25 - 150	12/10/24 03:40	12/13/24 04:25	1
13C2 PFDA	123		25 - 150	12/10/24 03:40	12/13/24 04:25	1
13C2 PFUnA	167 *5+		25 - 150	12/10/24 03:40	12/13/24 04:25	1
13C3 PFBS	99		25 - 150	12/10/24 03:40	12/13/24 04:25	1
M2-4:2 FTS	149		25 - 150	12/10/24 03:40	12/13/24 04:25	1
M2-6:2 FTS	151 *5+		25 - 150	12/10/24 03:40	12/13/24 04:25	1
13C2 10:2 FTS	661 *5+		25 - 150	12/10/24 03:40	12/13/24 04:25	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	330		76	13	ug/Kg				100
Br-Perfluorohexanesulfonic acid	55 J		76	11	ug/Kg	12/10/24 03:40	12/16/24 18:18		100
Total PFHxS	2500		76	11	ug/Kg	12/10/24 03:40	12/16/24 18:18		100
L-Perfluorohexanesulfonic acid	2500		76	11	ug/Kg	12/10/24 03:40	12/16/24 18:18		100
Perfluoroheptanesulfonic acid (PFHpS)	330		76	14	ug/Kg	12/10/24 03:40	12/16/24 18:18		100
L-Perfluoroctanesulfonic acid	9900 E		190	15	ug/Kg	12/10/24 03:40	12/16/24 18:18		100
Br-Perfluoroctanesulfonic acid	2700		190	15	ug/Kg	12/10/24 03:40	12/16/24 18:18		100
Total PFOS	13000		190	15	ug/Kg	12/10/24 03:40	12/16/24 18:18		100

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	95		25 - 150	12/10/24 03:40	12/16/24 18:18	100
18O2 PFHxS	121		25 - 150	12/10/24 03:40	12/16/24 18:18	100
13C4 PFOS	82		25 - 150	12/10/24 03:40	12/16/24 18:18	100

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	7.1		0.76	0.076	ug/Kg				1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283608, S. calypeata, L, MSB1011324,  
P37**

**Lab Sample ID: 320-117508-34**

**Date Collected: 12/04/24 00:00**  
**Date Received: 12/05/24 09:35**

**Matrix: Tissue**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-8:2 FTS	151	*5+	25 - 150	12/10/24 03:40	12/16/24 22:11	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283615, S. calypeata, L, MSB1011402, P38**

**Lab Sample ID: 320-117508-35**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.94	0.22	ug/Kg		12/10/24 03:40	12/13/24 04:44	1
Perfluoropentanoic acid (PFPeA)	0.70 J		0.94	0.17	ug/Kg		12/10/24 03:40	12/13/24 04:44	1
Perfluorohexanoic acid (PFHxA)	0.81 J		0.94	0.26	ug/Kg		12/10/24 03:40	12/13/24 04:44	1
Perfluoroheptanoic acid (PFHpA)	0.72 J		0.94	0.11	ug/Kg		12/10/24 03:40	12/13/24 04:44	1
Perfluorodecanoic acid (PFDA)	35		0.94	0.097	ug/Kg		12/10/24 03:40	12/13/24 04:44	1
Perfluoroundecanoic acid (PFUnA)	2.6		0.94	0.26	ug/Kg		12/10/24 03:40	12/13/24 04:44	1
Perfluorobutanesulfonic acid (PFBS)	0.79 J		0.94	0.16	ug/Kg		12/10/24 03:40	12/13/24 04:44	1
Perfluoropentanesulfonic acid (PFPeS)	30		0.94	0.17	ug/Kg		12/10/24 03:40	12/13/24 04:44	1
4:2 FTS	ND		0.94	0.25	ug/Kg		12/10/24 03:40	12/13/24 04:44	1
6:2 FTS	ND		0.94	0.40	ug/Kg		12/10/24 03:40	12/13/24 04:44	1
<b>10:2 FTS</b>	<b>0.17 J</b>		<b>0.94</b>	<b>0.095</b>	<b>ug/Kg</b>		<b>12/10/24 03:40</b>	<b>12/13/24 04:44</b>	<b>1</b>
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	66		25 - 150				12/10/24 03:40	12/13/24 04:44	1
13C5 PFPeA	75		25 - 150				12/10/24 03:40	12/13/24 04:44	1
13C2 PFHxA	115		25 - 150				12/10/24 03:40	12/13/24 04:44	1
13C4 PFHpA	106		25 - 150				12/10/24 03:40	12/13/24 04:44	1
13C2 PFDA	111		25 - 150				12/10/24 03:40	12/13/24 04:44	1
13C2 PFUnA	129		25 - 150				12/10/24 03:40	12/13/24 04:44	1
13C3 PFBS	102		25 - 150				12/10/24 03:40	12/13/24 04:44	1
M2-4:2 FTS	147		25 - 150				12/10/24 03:40	12/13/24 04:44	1
M2-6:2 FTS	122		25 - 150				12/10/24 03:40	12/13/24 04:44	1
13C2 10:2 FTS	490 *5+		25 - 150				12/10/24 03:40	12/13/24 04:44	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluoroctanoic acid	170		94	19	ug/Kg		12/10/24 03:40	12/16/24 18:56	100
Br-Perfluoroctanoic acid	ND		94	19	ug/Kg		12/10/24 03:40	12/16/24 18:56	100
<b>Total PFOA</b>	<b>170</b>		<b>94</b>	<b>19</b>	<b>ug/Kg</b>		<b>12/10/24 03:40</b>	<b>12/16/24 18:56</b>	<b>100</b>
Perfluorononanoic acid (PFNA)	480		94	17	ug/Kg		12/10/24 03:40	12/16/24 18:56	100
Br-Perfluorohexanesulfonic acid	150		94	14	ug/Kg		12/10/24 03:40	12/16/24 18:56	100
<b>Total PFHxS</b>	<b>3000</b>		<b>94</b>	<b>14</b>	<b>ug/Kg</b>		<b>12/10/24 03:40</b>	<b>12/16/24 18:56</b>	<b>100</b>
L-Perfluorohexanesulfonic acid	2800		94	14	ug/Kg		12/10/24 03:40	12/16/24 18:56	100
Perfluoroheptanesulfonic acid (PFHpS)	290		94	17	ug/Kg		12/10/24 03:40	12/16/24 18:56	100
L-Perfluoroctanesulfonic acid	11000 E		240	19	ug/Kg		12/10/24 03:40	12/16/24 18:56	100
Br-Perfluoroctanesulfonic acid	3100		240	19	ug/Kg		12/10/24 03:40	12/16/24 18:56	100
<b>Total PFOS</b>	<b>14000</b>		<b>240</b>	<b>19</b>	<b>ug/Kg</b>		<b>12/10/24 03:40</b>	<b>12/16/24 18:56</b>	<b>100</b>
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOA	83		25 - 150				12/10/24 03:40	12/16/24 18:56	100
13C5 PFNA	85		25 - 150				12/10/24 03:40	12/16/24 18:56	100
18O2 PFHxS	100		25 - 150				12/10/24 03:40	12/16/24 18:56	100
13C4 PFOS	81		25 - 150				12/10/24 03:40	12/16/24 18:56	100

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>8:2 FTS</b>	<b>11</b>		<b>0.94</b>	<b>0.094</b>	<b>ug/Kg</b>		<b>12/10/24 03:40</b>	<b>12/16/24 22:30</b>	<b>1</b>

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# Client Sample Results

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283615, S. calypeata, L, MSB1011402, P38**

**Lab Sample ID: 320-117508-35**

**Date Collected: 12/04/24 00:00**  
**Date Received: 12/05/24 09:35**

**Matrix: Tissue**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-8:2 FTS	111		25 - 150	12/10/24 03:40	12/16/24 22:30	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283619, S. calypeata, L, MSB1011416,  
 P39**

**Lab Sample ID: 320-117508-36**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.75	0.18	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
Perfluoropentanoic acid (PFPeA)	2.1		0.75	0.13	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
Perfluorohexanoic acid (PFHxA)	2.5		0.75	0.21	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
Perfluoroheptanoic acid (PFHpA)	2.2		0.75	0.087	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
L-Perfluorooctanoic acid	53		0.75	0.15	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
Br-Perfluorooctanoic acid	4.3		0.75	0.15	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
Total PFOA	58		0.75	0.15	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
Perfluorodecanoic acid (PFDA)	25		0.75	0.077	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
Perfluoroundecanoic acid (PFUnA)	1.8		0.75	0.20	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
Perfluorobutanesulfonic acid (PFBS)	1.2		0.75	0.13	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
Perfluoropentanesulfonic acid (PFPeS)	34		0.75	0.14	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
4:2 FTS	ND		0.75	0.20	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
6:2 FTS	0.54 J		0.75	0.32	ug/Kg		12/10/24 03:40	12/13/24 05:04	1
10:2 FTS	0.23 J		0.75	0.076	ug/Kg		12/10/24 03:40	12/13/24 05:04	1

### Isotope Dilution

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	65		25 - 150		12/10/24 03:40	12/13/24 05:04
13C5 PFPeA	87		25 - 150		12/10/24 03:40	12/13/24 05:04
13C2 PFHxA	100		25 - 150		12/10/24 03:40	12/13/24 05:04
13C4 PFHpA	103		25 - 150		12/10/24 03:40	12/13/24 05:04
13C4 PFOA	90		25 - 150		12/10/24 03:40	12/13/24 05:04
13C2 PFDA	106		25 - 150		12/10/24 03:40	12/13/24 05:04
13C2 PFUnA	136		25 - 150		12/10/24 03:40	12/13/24 05:04
13C3 PFBS	97		25 - 150		12/10/24 03:40	12/13/24 05:04
M2-4:2 FTS	131		25 - 150		12/10/24 03:40	12/13/24 05:04
M2-6:2 FTS	130		25 - 150		12/10/24 03:40	12/13/24 05:04
13C2 10:2 FTS	534 *5+		25 - 150		12/10/24 03:40	12/13/24 05:04

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	390		75	13	ug/Kg		12/10/24 03:40	12/16/24 19:16	100
Br-Perfluorohexanesulfonic acid	52 J		75	11	ug/Kg		12/10/24 03:40	12/16/24 19:16	100
Total PFHxS	2600		75	11	ug/Kg		12/10/24 03:40	12/16/24 19:16	100
L-Perfluorohexanesulfonic acid	2600		75	11	ug/Kg		12/10/24 03:40	12/16/24 19:16	100
Perfluoroheptanesulfonic acid (PFHpS)	460		75	14	ug/Kg		12/10/24 03:40	12/16/24 19:16	100
L-Perfluoroctanesulfonic acid	11000 E		190	15	ug/Kg		12/10/24 03:40	12/16/24 19:16	100
Br-Perfluoroctanesulfonic acid	3200		190	15	ug/Kg		12/10/24 03:40	12/16/24 19:16	100
Total PFOS	14000		190	15	ug/Kg		12/10/24 03:40	12/16/24 19:16	100

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	91		25 - 150		12/10/24 03:40	12/16/24 19:16
18O2 PFHxS	115		25 - 150		12/10/24 03:40	12/16/24 19:16
13C4 PFOS	73		25 - 150		12/10/24 03:40	12/16/24 19:16

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	5.1		0.75	0.075	ug/Kg		12/10/24 03:40	12/16/24 22:49	1

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# Client Sample Results

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283619, S. calypeata, L, MSB1011416,  
P39**

**Lab Sample ID: 320-117508-36**

**Date Collected: 12/04/24 00:00**  
**Date Received: 12/05/24 09:35**

**Matrix: Tissue**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-8:2 FTS	105		25 - 150	12/10/24 03:40	12/16/24 22:49	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283621, S. calypteata, L, MSB1011430,  
 P40**

**Lab Sample ID: 320-117508-37**

Date Collected: 12/04/24 00:00

Matrix: Tissue

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.76	0.18	ug/Kg				1
Perfluoropentanoic acid (PFPeA)	0.50 J		0.76	0.13	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
Perfluorohexanoic acid (PFHxA)	0.87		0.76	0.21	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
Perfluoroheptanoic acid (PFHpA)	1.4		0.76	0.089	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
L-Perfluorooctanoic acid	45		0.76	0.15	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
Br-Perfluorooctanoic acid	1.2		0.76	0.15	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
Total PFOA	46		0.76	0.15	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
Perfluorononanoic acid (PFNA)	62		0.76	0.13	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
Perfluorodecanoic acid (PFDA)	7.4		0.76	0.079	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
Perfluoroundecanoic acid (PFUnA)	0.57 J		0.76	0.21	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
Perfluorobutanesulfonic acid (PFBS)	0.90		0.76	0.13	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
Perfluoropentanesulfonic acid (PFPeS)	23		0.76	0.14	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
Br-Perfluorohexanesulfonic acid	53 J		76	11	ug/Kg	12/10/24 03:40	12/21/24 00:52		100
Total PFHxS	390		76	11	ug/Kg	12/10/24 03:40	12/21/24 00:52		100
L-Perfluorohexanesulfonic acid	340		76	11	ug/Kg	12/10/24 03:40	12/21/24 00:52		100
Perfluoroheptanesulfonic acid (PFHpS)	43		0.76	0.14	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
L-Perfluoroctanesulfonic acid	2600		190	15	ug/Kg	12/10/24 03:40	12/21/24 00:52		100
Br-Perfluoroctanesulfonic acid	480		190	15	ug/Kg	12/10/24 03:40	12/21/24 00:52		100
Total PFOS	3100		190	15	ug/Kg	12/10/24 03:40	12/21/24 00:52		100
4:2 FTS	ND		0.76	0.20	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
6:2 FTS	0.48 J		0.76	0.32	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
10:2 FTS	0.19 J		0.76	0.077	ug/Kg	12/10/24 03:40	12/13/24 05:23		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	51		25 - 150				12/10/24 03:40	12/13/24 05:23	1
13C5 PFPeA	76		25 - 150				12/10/24 03:40	12/13/24 05:23	1
13C2 PFHxA	102		25 - 150				12/10/24 03:40	12/13/24 05:23	1
13C4 PFHpA	101		25 - 150				12/10/24 03:40	12/13/24 05:23	1
13C4 PFOA	85		25 - 150				12/10/24 03:40	12/13/24 05:23	1
13C5 PFNA	63		25 - 150				12/10/24 03:40	12/13/24 05:23	1
13C2 PFDA	105		25 - 150				12/10/24 03:40	12/13/24 05:23	1
13C2 PFUnA	131		25 - 150				12/10/24 03:40	12/13/24 05:23	1
13C3 PFBS	88		25 - 150				12/10/24 03:40	12/13/24 05:23	1
18O2 PFHxS	91		25 - 150				12/10/24 03:40	12/21/24 00:52	100
13C4 PFOS	86		25 - 150				12/10/24 03:40	12/13/24 05:23	1
13C4 PFOS	77		25 - 150				12/10/24 03:40	12/21/24 00:52	100
M2-4:2 FTS	139		25 - 150				12/10/24 03:40	12/13/24 05:23	1
M2-6:2 FTS	198 *5+		25 - 150				12/10/24 03:40	12/13/24 05:23	1
13C2 10:2 FTS	533 *5+		25 - 150				12/10/24 03:40	12/13/24 05:23	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	1.3		0.76	0.076	ug/Kg				1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-8:2 FTS	118		25 - 150				12/10/24 03:40	12/16/24 16:41	1

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283622, L, S. calypeata, MSB1011451,  
 P41**

**Lab Sample ID: 320-117508-38**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

**Matrix: Tissue**

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.2		0.78	0.18	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
Perfluoropentanoic acid (PFPeA)	ND		0.78	0.14	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
Perfluorohexanoic acid (PFHxA)	ND		0.78	0.21	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
Perfluoroheptanoic acid (PFHpA)	ND		0.78	0.090	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
<b>L-Perfluorooctanoic acid</b>	<b>3.0</b>		0.78	0.16	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
Br-Perfluorooctanoic acid	ND		0.78	0.16	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
<b>Total PFOA</b>	<b>3.0</b>		0.78	0.16	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>52</b>		0.78	0.080	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>3.9</b>		0.78	0.21	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.78	0.13	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>0.36 J</b>		0.78	0.14	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
4:2 FTS	ND		0.78	0.21	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
6:2 FTS	ND		0.78	0.33	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
<b>8:2 FTS</b>	<b>21</b>		0.78	0.078	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
<b>10:2 FTS</b>	<b>0.20 J</b>		0.78	0.078	ug/Kg		12/10/24 03:40	12/13/24 06:02	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	54		25 - 150				12/10/24 03:40	12/13/24 06:02	1
13C5 PFPeA	84		25 - 150				12/10/24 03:40	12/13/24 06:02	1
13C2 PFHxA	94		25 - 150				12/10/24 03:40	12/13/24 06:02	1
13C4 PFHpA	96		25 - 150				12/10/24 03:40	12/13/24 06:02	1
13C4 PFOA	90		25 - 150				12/10/24 03:40	12/13/24 06:02	1
13C2 PFDA	93		25 - 150				12/10/24 03:40	12/13/24 06:02	1
13C2 PFUnA	88		25 - 150				12/10/24 03:40	12/13/24 06:02	1
13C3 PFBS	89		25 - 150				12/10/24 03:40	12/13/24 06:02	1
M2-4:2 FTS	130		25 - 150				12/10/24 03:40	12/13/24 06:02	1
M2-6:2 FTS	125		25 - 150				12/10/24 03:40	12/13/24 06:02	1
M2-8:2 FTS	92		25 - 150				12/10/24 03:40	12/13/24 06:02	1
13C2 10:2 FTS	359 *5+		25 - 150				12/10/24 03:40	12/13/24 06:02	1

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	730		78	14	ug/Kg		12/10/24 03:40	12/16/24 19:35	100
Br-Perfluorohexanesulfonic acid	ND		78	11	ug/Kg		12/10/24 03:40	12/16/24 19:35	100
<b>Total PFHxS</b>	<b>1200</b>		78	11	ug/Kg		12/10/24 03:40	12/16/24 19:35	100
<b>L-Perfluorohexanesulfonic acid</b>	<b>1200</b>		78	11	ug/Kg		12/10/24 03:40	12/16/24 19:35	100
<b>Perfluoroheptanesulfonic acid (PFHsP)</b>	<b>610</b>		78	14	ug/Kg		12/10/24 03:40	12/16/24 19:35	100
<b>L-Perfluorooctanesulfonic acid</b>	<b>19000 E</b>		190	16	ug/Kg		12/10/24 03:40	12/16/24 19:35	100
<b>Br-Perfluorooctanesulfonic acid</b>	<b>6000</b>		190	16	ug/Kg		12/10/24 03:40	12/16/24 19:35	100
<b>Total PFOS</b>	<b>25000</b>		190	16	ug/Kg		12/10/24 03:40	12/16/24 19:35	100
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C5 PFNA	95		25 - 150				12/10/24 03:40	12/16/24 19:35	100
18O2 PFHxS	102		25 - 150				12/10/24 03:40	12/16/24 19:35	100
13C4 PFOS	77		25 - 150				12/10/24 03:40	12/16/24 19:35	100

# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283626, S. calypeata, L, MSB1011466, P42**

**Lab Sample ID: 320-117508-39**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Matrix: Tissue

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.70	0.17	ug/Kg				1
Perfluoropentanoic acid (PFPeA)	0.32 J		0.70	0.12	ug/Kg	12/10/24 03:40	12/13/24 06:21		1
Perfluorohexanoic acid (PFHxA)	0.66 J		0.70	0.19	ug/Kg	12/10/24 03:40	12/13/24 06:21		1
Perfluoroheptanoic acid (PFHpA)	2.5		0.70	0.082	ug/Kg	12/10/24 03:40	12/13/24 06:21		1
Perfluorodecanoic acid (PFDA)	55		0.70	0.073	ug/Kg	12/10/24 03:40	12/13/24 06:21		1
Perfluoroundecanoic acid (PFUnA)	3.7		0.70	0.19	ug/Kg	12/10/24 03:40	12/13/24 06:21		1
Perfluorobutanesulfonic acid (PFBS)	1.1		0.70	0.12	ug/Kg	12/10/24 03:40	12/13/24 06:21		1
Perfluoropentanesulfonic acid (PFPeS)	62		0.70	0.13	ug/Kg	12/10/24 03:40	12/13/24 06:21		1
4:2 FTS	ND		0.70	0.19	ug/Kg	12/10/24 03:40	12/13/24 06:21		1
6:2 FTS	0.34 J		0.70	0.30	ug/Kg	12/10/24 03:40	12/13/24 06:21		1
8:2 FTS	18		0.70	0.070	ug/Kg	12/10/24 03:40	12/13/24 06:21		1
10:2 FTS	0.19 J		0.70	0.071	ug/Kg	12/10/24 03:40	12/13/24 06:21		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	52		25 - 150				12/10/24 03:40	12/13/24 06:21	1
13C5 PFPeA	81		25 - 150				12/10/24 03:40	12/13/24 06:21	1
13C2 PFHxA	98		25 - 150				12/10/24 03:40	12/13/24 06:21	1
13C4 PFHpA	103		25 - 150				12/10/24 03:40	12/13/24 06:21	1
13C2 PFDA	103		25 - 150				12/10/24 03:40	12/13/24 06:21	1
13C2 PFUnA	146		25 - 150				12/10/24 03:40	12/13/24 06:21	1
13C3 PFBS	87		25 - 150				12/10/24 03:40	12/13/24 06:21	1
M2-4:2 FTS	126		25 - 150				12/10/24 03:40	12/13/24 06:21	1
M2-6:2 FTS	172 *5+		25 - 150				12/10/24 03:40	12/13/24 06:21	1
M2-8:2 FTS	125		25 - 150				12/10/24 03:40	12/13/24 06:21	1
13C2 10:2 FTS	628 *5+		25 - 150				12/10/24 03:40	12/13/24 06:21	1

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluoroctanoic acid	410		70	14	ug/Kg				100
Br-Perfluoroctanoic acid	ND		70	14	ug/Kg	12/10/24 03:40	12/16/24 19:55		100
Total PFOA	410		70	14	ug/Kg	12/10/24 03:40	12/16/24 19:55		100
Perfluorononanoic acid (PFNA)	800		70	12	ug/Kg	12/10/24 03:40	12/16/24 19:55		100
Br-Perfluorohexanesulfonic acid	260		70	10	ug/Kg	12/10/24 03:40	12/16/24 19:55		100
Total PFHxS	5800		70	10	ug/Kg	12/10/24 03:40	12/16/24 19:55		100
L-Perfluorohexanesulfonic acid	5600		70	10	ug/Kg	12/10/24 03:40	12/16/24 19:55		100
Perfluoroheptanesulfonic acid (PFHps)	750		70	13	ug/Kg	12/10/24 03:40	12/16/24 19:55		100
L-Perfluoroctanesulfonic acid	19000 E		180	14	ug/Kg	12/10/24 03:40	12/16/24 19:55		100
Br-Perfluoroctanesulfonic acid	6400		180	14	ug/Kg	12/10/24 03:40	12/16/24 19:55		100
Total PFOS	26000		180	14	ug/Kg	12/10/24 03:40	12/16/24 19:55		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOA	83		25 - 150				12/10/24 03:40	12/16/24 19:55	100
13C5 PFNA	85		25 - 150				12/10/24 03:40	12/16/24 19:55	100
18O2 PFHxS	131		25 - 150				12/10/24 03:40	12/16/24 19:55	100
13C4 PFOS	76		25 - 150				12/10/24 03:40	12/16/24 19:55	100

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283627, S. calypeata, L, MSB1011473,  
 P43**

**Lab Sample ID: 320-117508-40**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

**Matrix: Tissue**

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	6.5		0.79	0.19	ug/Kg		12/10/24 03:40	12/13/24 06:41	1
Perfluoropentanoic acid (PFPeA)	0.64 J		0.79	0.14	ug/Kg		12/10/24 03:40	12/13/24 06:41	1
Perfluorohexanoic acid (PFHxA)	1.0		0.79	0.21	ug/Kg		12/10/24 03:40	12/13/24 06:41	1
Perfluoroheptanoic acid (PFHpA)	2.0		0.79	0.091	ug/Kg		12/10/24 03:40	12/13/24 06:41	1
Perfluorodecanoic acid (PFDA)	43		0.79	0.081	ug/Kg		12/10/24 03:40	12/13/24 06:41	1
Perfluoroundecanoic acid (PFUnA)	3.2		0.79	0.21	ug/Kg		12/10/24 03:40	12/13/24 06:41	1
Perfluorobutanesulfonic acid (PFBS)	1.9		0.79	0.13	ug/Kg		12/10/24 03:40	12/13/24 06:41	1
Perfluoropentanesulfonic acid (PFPeS)	60		0.79	0.14	ug/Kg		12/10/24 03:40	12/13/24 06:41	1
4:2 FTS	ND		0.79	0.21	ug/Kg		12/10/24 03:40	12/13/24 06:41	1
6:2 FTS	0.41 J		0.79	0.33	ug/Kg		12/10/24 03:40	12/13/24 06:41	1
8:2 FTS	14		0.79	0.079	ug/Kg		12/10/24 03:40	12/13/24 06:41	1
10:2 FTS	0.16 J		0.79	0.080	ug/Kg		12/10/24 03:40	12/13/24 06:41	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	69		25 - 150				12/10/24 03:40	12/13/24 06:41	1
13C5 PFPeA	89		25 - 150				12/10/24 03:40	12/13/24 06:41	1
13C2 PFHxA	115		25 - 150				12/10/24 03:40	12/13/24 06:41	1
13C4 PFHpA	111		25 - 150				12/10/24 03:40	12/13/24 06:41	1
13C2 PFDA	112		25 - 150				12/10/24 03:40	12/13/24 06:41	1
13C2 PFUnA	140		25 - 150				12/10/24 03:40	12/13/24 06:41	1
13C3 PFBS	98		25 - 150				12/10/24 03:40	12/13/24 06:41	1
M2-4:2 FTS	156 *5+		25 - 150				12/10/24 03:40	12/13/24 06:41	1
M2-6:2 FTS	150		25 - 150				12/10/24 03:40	12/13/24 06:41	1
M2-8:2 FTS	118		25 - 150				12/10/24 03:40	12/13/24 06:41	1
13C2 10:2 FTS	619 *5+		25 - 150				12/10/24 03:40	12/13/24 06:41	1

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanoic acid	350		79	16	ug/Kg		12/10/24 03:40	12/16/24 20:14	100
Br-Perfluorooctanoic acid	ND		79	16	ug/Kg		12/10/24 03:40	12/16/24 20:14	100
Total PFOA	350		79	16	ug/Kg		12/10/24 03:40	12/16/24 20:14	100
Perfluorononanoic acid (PFNA)	690		79	14	ug/Kg		12/10/24 03:40	12/16/24 20:14	100
Br-Perfluorohexanesulfonic acid	300		79	12	ug/Kg		12/10/24 03:40	12/16/24 20:14	100
Total PFHxS	6800		79	12	ug/Kg		12/10/24 03:40	12/16/24 20:14	100
L-Perfluorohexanesulfonic acid	6500		79	12	ug/Kg		12/10/24 03:40	12/16/24 20:14	100
Perfluoroheptanesulfonic acid (PFHps)	680		79	15	ug/Kg		12/10/24 03:40	12/16/24 20:14	100
L-Perfluorooctanesulfonic acid	17000 E		200	16	ug/Kg		12/10/24 03:40	12/16/24 20:14	100
Br-Perfluorooctanesulfonic acid	5400		200	16	ug/Kg		12/10/24 03:40	12/16/24 20:14	100
Total PFOS	23000		200	16	ug/Kg		12/10/24 03:40	12/16/24 20:14	100
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFOA	87		25 - 150				12/10/24 03:40	12/16/24 20:14	100
13C5 PFNA	86		25 - 150				12/10/24 03:40	12/16/24 20:14	100
18O2 PFHxS	128		25 - 150				12/10/24 03:40	12/16/24 20:14	100
13C4 PFOS	66		25 - 150				12/10/24 03:40	12/16/24 20:14	100

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283629, S. calypteata, Liver,  
 MSB1011446, P44**

**Lab Sample ID: 320-117508-41**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

**Matrix: Tissue**

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.3	0.30	ug/Kg				1
Perfluoropentanoic acid (PFPeA)	0.36 J		1.3	0.22	ug/Kg	12/10/24 13:20	12/11/24 20:05		1
Perfluorohexanoic acid (PFHxA)	0.81 J		1.3	0.34	ug/Kg	12/10/24 13:20	12/11/24 20:05		1
Perfluoroheptanoic acid (PFHpA)	1.2 J		1.3	0.15	ug/Kg	12/10/24 13:20	12/11/24 20:05		1
Perfluorodecanoic acid (PFDA)	47		1.3	0.13	ug/Kg	12/10/24 13:20	12/11/24 20:05		1
Perfluoroundecanoic acid (PFUnA)	3.7		1.3	0.34	ug/Kg	12/10/24 13:20	12/11/24 20:05		1
Perfluorobutanesulfonic acid (PFBS)	1.0 J		1.3	0.21	ug/Kg	12/10/24 13:20	12/11/24 20:05		1
Perfluoropentanesulfonic acid (PFPeS)	47		1.3	0.23	ug/Kg	12/10/24 13:20	12/11/24 20:05		1
4:2 FTS	ND		1.3	0.33	ug/Kg	12/10/24 13:20	12/11/24 20:05		1
6:2 FTS	ND		1.3	0.53	ug/Kg	12/10/24 13:20	12/11/24 20:05		1
8:2 FTS	14		1.3	0.13	ug/Kg	12/10/24 13:20	12/11/24 20:05		1
10:2 FTS	0.26 J		1.3	0.13	ug/Kg	12/10/24 13:20	12/11/24 20:05		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	72		25 - 150				12/10/24 13:20	12/11/24 20:05	1
13C5 PFPeA	111		25 - 150				12/10/24 13:20	12/11/24 20:05	1
13C2 PFHxA	128		25 - 150				12/10/24 13:20	12/11/24 20:05	1
13C4 PFHpA	137		25 - 150				12/10/24 13:20	12/11/24 20:05	1
13C2 PFDA	125		25 - 150				12/10/24 13:20	12/11/24 20:05	1
13C2 PFUnA	155 *5+		25 - 150				12/10/24 13:20	12/11/24 20:05	1
13C3 PFBS	106		25 - 150				12/10/24 13:20	12/11/24 20:05	1
M2-4:2 FTS	117		25 - 150				12/10/24 13:20	12/11/24 20:05	1
M2-6:2 FTS	119		25 - 150				12/10/24 13:20	12/11/24 20:05	1
M2-8:2 FTS	111		25 - 150				12/10/24 13:20	12/11/24 20:05	1
13C2 10:2 FTS	561 *5+		25 - 150				12/10/24 13:20	12/11/24 20:05	1

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanoic acid	390		130	25	ug/Kg				100
Br-Perfluorooctanoic acid	ND		130	25	ug/Kg	12/10/24 13:20	12/12/24 17:44		100
Total PFOA	390		130	25	ug/Kg	12/10/24 13:20	12/12/24 17:44		100
Perfluorononanoic acid (PFNA)	540		130	22	ug/Kg	12/10/24 13:20	12/12/24 17:44		100
Br-Perfluorohexanesulfonic acid	210		130	19	ug/Kg	12/10/24 13:20	12/12/24 17:44		100
Total PFHxS	5200		130	19	ug/Kg	12/10/24 13:20	12/12/24 17:44		100
L-Perfluorohexanesulfonic acid	5000		130	19	ug/Kg	12/10/24 13:20	12/12/24 17:44		100
Perfluoroheptanesulfonic acid (PFHps)	450		130	23	ug/Kg	12/10/24 13:20	12/12/24 17:44		100
L-Perfluorooctanesulfonic acid	15000 E		310	25	ug/Kg	12/10/24 13:20	12/12/24 17:44		100
Br-Perfluorooctanesulfonic acid	4200		310	25	ug/Kg	12/10/24 13:20	12/12/24 17:44		100
Total PFOS	19000		310	25	ug/Kg	12/10/24 13:20	12/12/24 17:44		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOA	88		25 - 150				12/10/24 13:20	12/12/24 17:44	100
13C5 PFNA	90		25 - 150				12/10/24 13:20	12/12/24 17:44	100
18O2 PFHxS	117		25 - 150				12/10/24 13:20	12/12/24 17:44	100
13C4 PFOS	78		25 - 150				12/10/24 13:20	12/12/24 17:44	100

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283631, L, A. americana, MSB1011511,  
 P45**

**Lab Sample ID: 320-117508-42**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Matrix: Tissue

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.91	0.21	ug/Kg				1
Perfluoropentanoic acid (PFPeA)	0.70 J		0.91	0.16	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
Perfluorohexanoic acid (PFHxA)	1.2		0.91	0.25	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
Perfluoroheptanoic acid (PFHpA)	2.5		0.91	0.11	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
L-Perfluorooctanoic acid	60		0.91	0.18	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
Br-Perfluorooctanoic acid	2.5		0.91	0.18	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
Total PFOA	63		0.91	0.18	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
Perfluorononanoic acid (PFNA)	65		0.91	0.16	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
Perfluorodecanoic acid (PFDA)	8.1		0.91	0.094	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
Perfluoroundecanoic acid (PFUnA)	1.5		0.91	0.25	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
Perfluorobutanesulfonic acid (PFBS)	1.3		0.91	0.15	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
Perfluoropentanesulfonic acid (PFPeS)	37		0.91	0.16	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
Perfluoroheptanesulfonic acid (PFHpS)	44		0.91	0.17	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
4:2 FTS	ND		0.91	0.24	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
6:2 FTS	ND		0.91	0.39	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
8:2 FTS	2.1		0.91	0.091	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
10:2 FTS	0.19 J		0.91	0.092	ug/Kg	12/10/24 13:20	12/11/24 20:25		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	73		25 - 150				12/10/24 13:20	12/11/24 20:25	1
13C5 PFPeA	88		25 - 150				12/10/24 13:20	12/11/24 20:25	1
13C2 PFHxA	105		25 - 150				12/10/24 13:20	12/11/24 20:25	1
13C4 PFHpA	109		25 - 150				12/10/24 13:20	12/11/24 20:25	1
13C4 PFOA	89		25 - 150				12/10/24 13:20	12/11/24 20:25	1
13C5 PFNA	69		25 - 150				12/10/24 13:20	12/11/24 20:25	1
13C2 PFDA	107		25 - 150				12/10/24 13:20	12/11/24 20:25	1
13C2 PFUnA	134		25 - 150				12/10/24 13:20	12/11/24 20:25	1
13C3 PFBS	103		25 - 150				12/10/24 13:20	12/11/24 20:25	1
13C4 PFOS	80		25 - 150				12/10/24 13:20	12/11/24 20:25	1
M2-4:2 FTS	130		25 - 150				12/10/24 13:20	12/11/24 20:25	1
M2-6:2 FTS	151 *5+		25 - 150				12/10/24 13:20	12/11/24 20:25	1
M2-8:2 FTS	84		25 - 150				12/10/24 13:20	12/11/24 20:25	1
13C2 10:2 FTS	578 *5+		25 - 150				12/10/24 13:20	12/11/24 20:25	1

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Br-Perfluorohexanesulfonic acid	93		91	13	ug/Kg				100
Total PFHxS	190		91	13	ug/Kg	12/10/24 13:20	12/17/24 00:26		100
L-Perfluorohexanesulfonic acid	93		91	13	ug/Kg	12/10/24 13:20	12/17/24 00:26		100
L-Perfluoroctanesulfonic acid	3100		230	18	ug/Kg	12/10/24 13:20	12/17/24 00:26		100
Br-Perfluoroctanesulfonic acid	570		230	18	ug/Kg	12/10/24 13:20	12/17/24 00:26		100
Total PFOS	3700		230	18	ug/Kg	12/10/24 13:20	12/17/24 00:26		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	102		25 - 150				12/10/24 13:20	12/17/24 00:26	100
13C4 PFOS	84		25 - 150				12/10/24 13:20	12/17/24 00:26	100

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283633, L, S. clypeata, MSB1011525, P46**

**Lab Sample ID: 320-117508-43**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.89	0.21	ug/Kg		12/10/24 13:20	12/11/24 20:44	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.34 J</b>		0.89	0.16	ug/Kg		12/10/24 13:20	12/11/24 20:44	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.58 J</b>		0.89	0.24	ug/Kg		12/10/24 13:20	12/11/24 20:44	1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.98</b>		0.89	0.10	ug/Kg		12/10/24 13:20	12/11/24 20:44	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>40</b>		0.89	0.092	ug/Kg		12/10/24 13:20	12/11/24 20:44	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>3.2</b>		0.89	0.24	ug/Kg		12/10/24 13:20	12/11/24 20:44	1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.82 J</b>		0.89	0.15	ug/Kg		12/10/24 13:20	12/11/24 20:44	1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>43</b>		0.89	0.16	ug/Kg		12/10/24 13:20	12/11/24 20:44	1
4:2 FTS	ND		0.89	0.24	ug/Kg		12/10/24 13:20	12/11/24 20:44	1
6:2 FTS	ND		0.89	0.38	ug/Kg		12/10/24 13:20	12/11/24 20:44	1
<b>8:2 FTS</b>	<b>15</b>		0.89	0.089	ug/Kg		12/10/24 13:20	12/11/24 20:44	1
<b>10:2 FTS</b>	<b>0.18 J</b>		0.89	0.090	ug/Kg		12/10/24 13:20	12/11/24 20:44	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	76		25 - 150				12/10/24 13:20	12/11/24 20:44	1
13C5 PFPeA	94		25 - 150				12/10/24 13:20	12/11/24 20:44	1
13C2 PFHxA	125		25 - 150				12/10/24 13:20	12/11/24 20:44	1
13C4 PFHpA	114		25 - 150				12/10/24 13:20	12/11/24 20:44	1
13C2 PFDA	112		25 - 150				12/10/24 13:20	12/11/24 20:44	1
13C2 PFUnA	119		25 - 150				12/10/24 13:20	12/11/24 20:44	1
13C3 PFBS	103		25 - 150				12/10/24 13:20	12/11/24 20:44	1
M2-4:2 FTS	116		25 - 150				12/10/24 13:20	12/11/24 20:44	1
M2-6:2 FTS	125		25 - 150				12/10/24 13:20	12/11/24 20:44	1
M2-8:2 FTS	100		25 - 150				12/10/24 13:20	12/11/24 20:44	1
13C2 10:2 FTS	496 *5+		25 - 150				12/10/24 13:20	12/11/24 20:44	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>L-Perfluorooctanoic acid</b>	<b>410</b>		89	18	ug/Kg		12/10/24 13:20	12/12/24 18:04	100
Br-Perfluorooctanoic acid	ND		89	18	ug/Kg		12/10/24 13:20	12/12/24 18:04	100
<b>Total PFOA</b>	<b>410</b>		89	18	ug/Kg		12/10/24 13:20	12/12/24 18:04	100
<b>Perfluorononanoic acid (PFNA)</b>	<b>590</b>		89	16	ug/Kg		12/10/24 13:20	12/12/24 18:04	100
<b>Br-Perfluorohexanesulfonic acid</b>	<b>200</b>		89	13	ug/Kg		12/10/24 13:20	12/12/24 18:04	100
<b>Total PFHxS</b>	<b>4700</b>		89	13	ug/Kg		12/10/24 13:20	12/12/24 18:04	100
<b>L-Perfluorohexanesulfonic acid</b>	<b>4500</b>		89	13	ug/Kg		12/10/24 13:20	12/12/24 18:04	100
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>490</b>		89	17	ug/Kg		12/10/24 13:20	12/12/24 18:04	100
<b>L-Perfluorooctanesulfonic acid</b>	<b>17000 E</b>		220	18	ug/Kg		12/10/24 13:20	12/12/24 18:04	100
<b>Br-Perfluorooctanesulfonic acid</b>	<b>4300</b>		220	18	ug/Kg		12/10/24 13:20	12/12/24 18:04	100
<b>Total PFOS</b>	<b>21000</b>		220	18	ug/Kg		12/10/24 13:20	12/12/24 18:04	100
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFOA	85		25 - 150				12/10/24 13:20	12/12/24 18:04	100
13C5 PFNA	100		25 - 150				12/10/24 13:20	12/12/24 18:04	100
18O2 PFHxS	128		25 - 150				12/10/24 13:20	12/12/24 18:04	100
13C4 PFOS	90		25 - 150				12/10/24 13:20	12/12/24 18:04	100

Eurofins Sacramento

# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283641, L, S. clypeata, MSB1011577, P47**

**Lab Sample ID: 320-117508-44**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.90	0.21	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>0.39 J</b>		0.90	0.16	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.79 J</b>		0.90	0.25	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>0.81 J</b>		0.90	0.10	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
L-Perfluoroctanoic acid	88		0.90	0.18	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
Br-Perfluoroctanoic acid	2.2		0.90	0.18	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
<b>Total PFOA</b>	<b>90</b>		0.90	0.18	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
<b>Perfluorodecanoic acid (PFDA)</b>	<b>32</b>		0.90	0.093	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
<b>Perfluoroundecanoic acid (PFUnA)</b>	<b>2.6</b>		0.90	0.25	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>1.2</b>		0.90	0.15	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
<b>Perfluoropentanesulfonic acid (PFPeS)</b>	<b>54</b>		0.90	0.16	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
4:2 FTS	ND		0.90	0.24	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
6:2 FTS	ND		0.90	0.38	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
<b>8:2 FTS</b>	<b>11</b>		0.90	0.090	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
<b>10:2 FTS</b>	<b>0.16 J</b>		0.90	0.091	ug/Kg		12/10/24 13:20	12/11/24 21:04	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	66		25 - 150				12/10/24 13:20	12/11/24 21:04	1
13C5 PFPeA	93		25 - 150				12/10/24 13:20	12/11/24 21:04	1
13C2 PFHxA	105		25 - 150				12/10/24 13:20	12/11/24 21:04	1
13C4 PFHpA	105		25 - 150				12/10/24 13:20	12/11/24 21:04	1
13C4 PFOA	92		25 - 150				12/10/24 13:20	12/11/24 21:04	1
13C2 PFDA	102		25 - 150				12/10/24 13:20	12/11/24 21:04	1
13C2 PFUnA	116		25 - 150				12/10/24 13:20	12/11/24 21:04	1
13C3 PFBS	89		25 - 150				12/10/24 13:20	12/11/24 21:04	1
M2-4:2 FTS	119		25 - 150				12/10/24 13:20	12/11/24 21:04	1
M2-6:2 FTS	98		25 - 150				12/10/24 13:20	12/11/24 21:04	1
M2-8:2 FTS	88		25 - 150				12/10/24 13:20	12/11/24 21:04	1
13C2 10:2 FTS	448 *5+		25 - 150				12/10/24 13:20	12/11/24 21:04	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorononanoic acid (PFNA)</b>	<b>370</b>		90	16	ug/Kg		12/10/24 13:20	12/12/24 18:23	100
<b>Br-Perfluorohexanesulfonic acid</b>	<b>220</b>		90	13	ug/Kg		12/10/24 13:20	12/12/24 18:23	100
<b>Total PFHxS</b>	<b>2300</b>		90	13	ug/Kg		12/10/24 13:20	12/12/24 18:23	100
<b>L-Perfluorohexanesulfonic acid</b>	<b>2100</b>		90	13	ug/Kg		12/10/24 13:20	12/12/24 18:23	100
<b>Perfluoroheptanesulfonic acid (PFHpS)</b>	<b>210</b>		90	17	ug/Kg		12/10/24 13:20	12/12/24 18:23	100
<b>L-Perfluoroctanesulfonic acid</b>	<b>9700 E</b>		230	18	ug/Kg		12/10/24 13:20	12/12/24 18:23	100
<b>Br-Perfluoroctanesulfonic acid</b>	<b>2900</b>		230	18	ug/Kg		12/10/24 13:20	12/12/24 18:23	100
<b>Total PFOS</b>	<b>13000</b>		230	18	ug/Kg		12/10/24 13:20	12/12/24 18:23	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFNA	104		25 - 150				12/10/24 13:20	12/12/24 18:23	100
18O2 PFHxA	127		25 - 150				12/10/24 13:20	12/12/24 18:23	100
13C4 PFOS	95		25 - 150				12/10/24 13:20	12/12/24 18:23	100

# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283644, S. clypeata, Liver, MSB1011744,  
 P48**

**Lab Sample ID: 320-117508-45**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Matrix: Tissue

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.87	0.21	ug/Kg				1
Perfluoropentanoic acid (PFPeA)	0.19 J		0.87	0.15	ug/Kg	12/10/24 13:20	12/11/24 21:23		1
Perfluorohexanoic acid (PFHxA)	0.35 J		0.87	0.24	ug/Kg	12/10/24 13:20	12/11/24 21:23		1
Perfluoroheptanoic acid (PFHpA)	0.57 J		0.87	0.10	ug/Kg	12/10/24 13:20	12/11/24 21:23		1
Perfluorodecanoic acid (PFDA)	45		0.87	0.090	ug/Kg	12/10/24 13:20	12/11/24 21:23		1
Perfluoroundecanoic acid (PFUnA)	3.2		0.87	0.24	ug/Kg	12/10/24 13:20	12/11/24 21:23		1
Perfluorobutanesulfonic acid (PFBS)	0.69 J		0.87	0.15	ug/Kg	12/10/24 13:20	12/11/24 21:23		1
Perfluoropentanesulfonic acid (PFPeS)	26		0.87	0.16	ug/Kg	12/10/24 13:20	12/11/24 21:23		1
4:2 FTS	ND		0.87	0.23	ug/Kg	12/10/24 13:20	12/11/24 21:23		1
6:2 FTS	ND		0.87	0.37	ug/Kg	12/10/24 13:20	12/11/24 21:23		1
8:2 FTS	14		0.87	0.087	ug/Kg	12/10/24 13:20	12/11/24 21:23		1
10:2 FTS	0.19 J		0.87	0.088	ug/Kg	12/10/24 13:20	12/11/24 21:23		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	80		25 - 150				12/10/24 13:20	12/11/24 21:23	1
13C5 PFPeA	109		25 - 150				12/10/24 13:20	12/11/24 21:23	1
13C2 PFHxA	124		25 - 150				12/10/24 13:20	12/11/24 21:23	1
13C4 PFHpA	108		25 - 150				12/10/24 13:20	12/11/24 21:23	1
13C2 PFDA	114		25 - 150				12/10/24 13:20	12/11/24 21:23	1
13C2 PFUnA	152 *5+		25 - 150				12/10/24 13:20	12/11/24 21:23	1
13C3 PFBS	103		25 - 150				12/10/24 13:20	12/11/24 21:23	1
M2-4:2 FTS	120		25 - 150				12/10/24 13:20	12/11/24 21:23	1
M2-6:2 FTS	102		25 - 150				12/10/24 13:20	12/11/24 21:23	1
M2-8:2 FTS	96		25 - 150				12/10/24 13:20	12/11/24 21:23	1
13C2 10:2 FTS	597 *5+		25 - 150				12/10/24 13:20	12/11/24 21:23	1

## Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluorooctanoic acid	140		87	18	ug/Kg				100
Br-Perfluorooctanoic acid	ND		87	18	ug/Kg	12/10/24 13:20	12/12/24 18:43		100
Total PFOA	140		87	18	ug/Kg	12/10/24 13:20	12/12/24 18:43		100
Perfluorononanoic acid (PFNA)	660		87	15	ug/Kg	12/10/24 13:20	12/12/24 18:43		100
Br-Perfluorohexanesulfonic acid	130		87	13	ug/Kg	12/10/24 13:20	12/12/24 18:43		100
Total PFHxS	3500		87	13	ug/Kg	12/10/24 13:20	12/12/24 18:43		100
L-Perfluorohexanesulfonic acid	3300		87	13	ug/Kg	12/10/24 13:20	12/12/24 18:43		100
Perfluoroheptanesulfonic acid (PFHps)	500		87	16	ug/Kg	12/10/24 13:20	12/12/24 18:43		100
L-Perfluorooctanesulfonic acid	16000 E		220	18	ug/Kg	12/10/24 13:20	12/12/24 18:43		100
Br-Perfluorooctanesulfonic acid	5200		220	18	ug/Kg	12/10/24 13:20	12/12/24 18:43		100
Total PFOS	21000		220	18	ug/Kg	12/10/24 13:20	12/12/24 18:43		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOA	90		25 - 150				12/10/24 13:20	12/12/24 18:43	100
13C5 PFNA	91		25 - 150				12/10/24 13:20	12/12/24 18:43	100
18O2 PFHxS	122		25 - 150				12/10/24 13:20	12/12/24 18:43	100
13C4 PFOS	83		25 - 150				12/10/24 13:20	12/12/24 18:43	100

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283669, S. clypeata, Liver, MSB1011800, P49**

**Lab Sample ID: 320-117508-46**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Matrix: Tissue

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.88	0.21	ug/Kg				1
Perfluoropentanoic acid (PFPeA)	0.20	J	0.88	0.15	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
Perfluorohexanoic acid (PFHxA)	0.33	J	0.88	0.24	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
Perfluoroheptanoic acid (PFHpA)	0.56	J	0.88	0.10	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
L-Perfluorooctanoic acid	64		0.88	0.18	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
Br-Perfluorooctanoic acid	1.9		0.88	0.18	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
Total PFOA	65		0.88	0.18	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
Perfluorodecanoic acid (PFDA)	35		0.88	0.091	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
Perfluoroundecanoic acid (PFUnA)	3.0		0.88	0.24	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
Perfluorobutanesulfonic acid (PFBS)	0.56	J	0.88	0.15	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
Perfluoropentanesulfonic acid (PFPeS)	18		0.88	0.16	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
4:2 FTS	ND		0.88	0.24	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
6:2 FTS	ND		0.88	0.38	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
8:2 FTS	12		0.88	0.088	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
10:2 FTS	0.18	J	0.88	0.089	ug/Kg	12/10/24 13:20	12/11/24 21:42		1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	64		25 - 150				12/10/24 13:20	12/11/24 21:42	1
13C5 PFPeA	94		25 - 150				12/10/24 13:20	12/11/24 21:42	1
13C2 PFHxA	120		25 - 150				12/10/24 13:20	12/11/24 21:42	1
13C4 PFHpA	110		25 - 150				12/10/24 13:20	12/11/24 21:42	1
13C4 PFOA	91		25 - 150				12/10/24 13:20	12/11/24 21:42	1
13C2 PFDA	114		25 - 150				12/10/24 13:20	12/11/24 21:42	1
13C2 PFUnA	119		25 - 150				12/10/24 13:20	12/11/24 21:42	1
13C3 PFBS	114		25 - 150				12/10/24 13:20	12/11/24 21:42	1
M2-4:2 FTS	108		25 - 150				12/10/24 13:20	12/11/24 21:42	1
M2-6:2 FTS	91		25 - 150				12/10/24 13:20	12/11/24 21:42	1
M2-8:2 FTS	87		25 - 150				12/10/24 13:20	12/11/24 21:42	1
13C2 10:2 FTS	539	*5+	25 - 150				12/10/24 13:20	12/11/24 21:42	1

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	460		88	15	ug/Kg				100
Br-Perfluorohexanesulfonic acid	97		88	13	ug/Kg	12/10/24 13:20	12/12/24 19:02		100
Total PFHxS	1800		88	13	ug/Kg	12/10/24 13:20	12/12/24 19:02		100
L-Perfluorohexanesulfonic acid	1700	I	88	13	ug/Kg	12/10/24 13:20	12/12/24 19:02		100
Perfluoroheptanesulfonic acid (PFHpS)	400		88	16	ug/Kg	12/10/24 13:20	12/12/24 19:02		100
L-Perfluoroctanesulfonic acid	15000	E	220	18	ug/Kg	12/10/24 13:20	12/12/24 19:02		100
Br-Perfluoroctanesulfonic acid	4300		220	18	ug/Kg	12/10/24 13:20	12/12/24 19:02		100
Total PFOS	19000		220	18	ug/Kg	12/10/24 13:20	12/12/24 19:02		100
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C5 PFNA	89		25 - 150				12/10/24 13:20	12/12/24 19:02	100
18O2 PFHxS	108		25 - 150				12/10/24 13:20	12/12/24 19:02	100
13C4 PFOS	75		25 - 150				12/10/24 13:20	12/12/24 19:02	100

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# Client Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283674, S. clypeata, Liver, MSB1011812,  
 P50**

**Lab Sample ID: 320-117508-47**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

**Matrix: Tissue**

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		0.85	0.20	ug/Kg				1
Perfluoropentanoic acid (PFPeA)	0.23 J		0.85	0.15	ug/Kg	12/10/24 13:20	12/11/24 22:02		1
Perfluorohexanoic acid (PFHxA)	0.37 J		0.85	0.23	ug/Kg	12/10/24 13:20	12/11/24 22:02		1
Perfluoroheptanoic acid (PFHpA)	0.78 J		0.85	0.099	ug/Kg	12/10/24 13:20	12/11/24 22:02		1
Perfluorodecanoic acid (PFDA)	50		0.85	0.088	ug/Kg	12/10/24 13:20	12/11/24 22:02		1
Perfluoroundecanoic acid (PFUnA)	3.7		0.85	0.23	ug/Kg	12/10/24 13:20	12/11/24 22:02		1
Perfluorobutanesulfonic acid (PFBS)	0.92		0.85	0.15	ug/Kg	12/10/24 13:20	12/11/24 22:02		1
Perfluoropentanesulfonic acid (PFPeS)	34		0.85	0.15	ug/Kg	12/10/24 13:20	12/11/24 22:02		1
4:2 FTS	ND		0.85	0.23	ug/Kg	12/10/24 13:20	12/11/24 22:02		1
6:2 FTS	0.45 J		0.85	0.36	ug/Kg	12/10/24 13:20	12/11/24 22:02		1
8:2 FTS	24		0.85	0.085	ug/Kg	12/10/24 13:20	12/11/24 22:02		1
10:2 FTS	0.78 J		0.85	0.086	ug/Kg	12/10/24 13:20	12/11/24 22:02		1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	47		25 - 150				12/10/24 13:20	12/11/24 22:02	1
13C5 PFPeA	81		25 - 150				12/10/24 13:20	12/11/24 22:02	1
13C2 PFHxA	116		25 - 150				12/10/24 13:20	12/11/24 22:02	1
13C4 PFHpA	116		25 - 150				12/10/24 13:20	12/11/24 22:02	1
13C2 PFDA	117		25 - 150				12/10/24 13:20	12/11/24 22:02	1
13C2 PFUnA	160 *5+		25 - 150				12/10/24 13:20	12/11/24 22:02	1
13C3 PFBS	94		25 - 150				12/10/24 13:20	12/11/24 22:02	1
M2-4:2 FTS	115		25 - 150				12/10/24 13:20	12/11/24 22:02	1
M2-6:2 FTS	133		25 - 150				12/10/24 13:20	12/11/24 22:02	1
M2-8:2 FTS	112		25 - 150				12/10/24 13:20	12/11/24 22:02	1
13C2 10:2 FTS	679 *5+		25 - 150				12/10/24 13:20	12/11/24 22:02	1

**Method: EPA B/L/T PFAS - Branched, Linear and Total PFAS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
L-Perfluoroctanoic acid	91		85	17	ug/Kg				100
Br-Perfluoroctanoic acid	ND		85	17	ug/Kg	12/10/24 13:20	12/12/24 19:21		100
Total PFOA	91		85	17	ug/Kg	12/10/24 13:20	12/12/24 19:21		100
Perfluorononanoic acid (PFNA)	670		85	15	ug/Kg	12/10/24 13:20	12/12/24 19:21		100
Br-Perfluorohexanesulfonic acid	140		85	13	ug/Kg	12/10/24 13:20	12/12/24 19:21		100
Total PFHxS	2600		85	13	ug/Kg	12/10/24 13:20	12/12/24 19:21		100
L-Perfluorohexanesulfonic acid	2500		85	13	ug/Kg	12/10/24 13:20	12/12/24 19:21		100
Perfluoroheptanesulfonic acid (PFHps)	480		85	16	ug/Kg	12/10/24 13:20	12/12/24 19:21		100
L-Perfluoroctanesulfonic acid	17000 E		210	17	ug/Kg	12/10/24 13:20	12/12/24 19:21		100
Br-Perfluoroctanesulfonic acid	5200		210	17	ug/Kg	12/10/24 13:20	12/12/24 19:21		100
Total PFOS	22000		210	17	ug/Kg	12/10/24 13:20	12/12/24 19:21		100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOA	86		25 - 150				12/10/24 13:20	12/12/24 19:21	100
13C5 PFNA	93		25 - 150				12/10/24 13:20	12/12/24 19:21	100
18O2 PFHxS	128		25 - 150				12/10/24 13:20	12/12/24 19:21	100
13C4 PFOS	88		25 - 150				12/10/24 13:20	12/12/24 19:21	100

Eurofins Sacramento

# Isotope Dilution Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-117508-1	NK14474, MSB18488, Pool1, P	70	87	99	99	83	55	108	116
320-117508-1 - RA	NK14474, MSB18488, Pool1, P1								
320-117508-2	NK9098, Liver, P2	84	84	94	83	79	81	87	78
320-117508-3	NK2445, Liver, AFP7B, P3	68	76	91	86	77	72	89	78
320-117508-4	NK2444, Liver, AFP7A, P4	54	73	82	84	72	58	117	97
320-117508-5	NK35660, MSB29117, P5	57	69	90	91	73	57	115	104
320-117508-6	NK35661, MSB29140, P6	37	63	79	92	72	43	101	109
320-117508-6 - RA	NK35661, MSB29140, P6								
320-117508-7	NK35655, MSB29134, P7	53	64	80	84	71	54	99	109
320-117508-7 - RA	NK35655, MSB29134, P7								
320-117508-8	NK35811, MSB30651, P8	48	59	73	79	66	61	87	99
320-117508-8 - RA	NK35811, MSB30651, P8								
320-117508-9	NK35643, MSB29100, P9	79	87	109	110	95	96	124	129
320-117508-10	NK170946, P10	63	62	78	77	77	37	76	72
320-117508-11	NK100328, Liver, AEPIR, P11	60	66	87	84	75	78	94	88
320-117508-12	NK165232, MSB26431, P12	67	77	84	88	71	79	92	109
320-117508-13	NK35676, MSB29118, P14	53	64	77	81	64	55	91	85
320-117508-14	NK35678, MSB29131, P15	43	58	71	73	61	51	80	83
320-117508-14 - RA	NK35678, MSB29131, P15								
320-117508-15	NK35669, MSB29093, P16	54	81	107	101	87	80	122	132
320-117508-15 - RA	NK35669, MSB29093, P16								
320-117508-16	NK35935, MSB39605, P17	22 *5-	52	80	93	77	75	104	128
320-117508-17	NK35958, MSB40165, P18	46	72	91	97	91	85	106	97
320-117508-18	NK35816, MSB30670, P19	55	84	90	107	93	69	126	143
320-117508-19	NK35804, MSB30716, P20	37	64	94	119	94	84	124	140
320-117508-20	NK35876, MSB39746, P22	58	86	119	104	90	70	129	122
320-117508-21	NK35910, MSB39349, P23	49	64	93	91	83	84	99	117
320-117508-22	NK35817, MSB30650, P24	67	75	104	98	90	82	123	138
320-117508-23	Pool 25, Duck PFAS, P25	70	89	106	108	93	74	113	100
320-117508-24	NK282630, MSB50169, P26	73	75	93	91	85	92	103	86
320-117508-25	NK276851, MSB46239, P28	61	71	90	85	81	85	96	102
320-117508-26	NK282547, MSB49842, P29	51	78	87	100	91	84	104	104
320-117508-27	NK276660, MSB45963, P30	75	73	89	86	85	76	93	92
320-117508-28	NK282696, MSB50223, P31	80	98	110	110	97	108	121	120
320-117508-29	NK283601, Spat. Cly, Liver, ABJ34298, MSB1011285, P32	53	71	108	110			112	153 *5+
320-117508-29 - RA	NK283601, Spat. Cly, Liver, ABJ34298, MSB1011285, P32								
320-117508-29 - DL	NK283601, Spat. Cly, Liver, ABJ34298, MSB1011285, P32					95	100		
320-117508-30	NK283602, JLW125, S. Calypeata, L, MSB1011279, P33	70	95	112	106			120	135
320-117508-30 - RA	NK283602, JLW125, S. Calypeata, L, MSB1011279, P33								
320-117508-30	NK283602, JLW125, S. Calypeata, L, MSB1011279, P33					80	94		
320-117508-31	NK283605, Liver, Spatula, MSB1011318, P34	57	75	93	91			103	139

Eurofins Sacramento

# Isotope Dilution Summary

Client: University of New Mexico

Job ID: 320-117508-1

Project/Site: UNM\_PFAS in Tissue, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Matrix: Tissue**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-117508-31 - RA	NK283605, Liver, Spatula, MSB								
320-117508-31 - DL	NK283605, Liver, Spatula, MSB1011318, P34					84	87		
320-117508-32	NK283606, Spatula, Liver, MSB1011339, P35	44	67	95	90	73		90	124
320-117508-32 - RA	NK283606, Spatula, Liver, MSB1011339, P35								
320-117508-32 - DL	NK283606, Spatula, Liver, MSB1011339, P35					73	80		
320-117508-33	NK283607, S. calypteata, Liver, MSB1011310, P36	50	71	97	96	86		102	146
320-117508-33 - DL	NK283607, S. calypteata, Liver, MSB1011310, P36						96		
320-117508-33 - RA	NK283607, S. calypteata, Liver, MSB1011310, P36								
320-117508-34	NK283608, S. calypteata, L, MSB1011324, P37	52	84	113	112	94		123	167 *5+
320-117508-34 - DL	NK283608, S. calypteata, L, MSB1011324, P37						95		
320-117508-34 - RA	NK283608, S. calypteata, L, MSB1011324, P37								
320-117508-35	NK283615, S. calypteata, L, MSB1011402, P38	66	75	115	106			111	129
320-117508-35 - DL	NK283615, S. calypteata, L, MSB1011402, P38					83	85		
320-117508-35 - RA	NK283615, S. calypteata, L, MSB1011402, P38								
320-117508-36	NK283619, S. calypteata, L, MSB1011416, P39	65	87	100	103	90		106	136
320-117508-36 - DL	NK283619, S. calypteata, L, MSB1011416, P39						91		
320-117508-36 - RA	NK283619, S. calypteata, L, MSB1011416, P39								
320-117508-37	NK283621, S. calypteata, L, MSB1011430, P40	51	76	102	101	85	63	105	131
320-117508-37 - RA	NK283621, S. calypteata, L, MSB1011430, P40								
320-117508-37	NK283621, S. calypteata, L, MSB1011430, P40								
320-117508-38	NK283622, L, S. calypteata, MSB1011451, P41	54	84	94	96	90		93	88
320-117508-38 - DL	NK283622, L, S. calypteata, MSB1011451, P41						95		
320-117508-39	NK283626, S. calypteata, L, MSB1011466, P42	52	81	98	103			103	146
320-117508-39 - DL	NK283626, S. calypteata, L, MSB1011466, P42					83	85		
320-117508-40	NK283627, S. calypteata, L, MSB1011473, P43	69	89	115	111			112	140
320-117508-40 - DL	NK283627, S. calypteata, L, MSB1011473, P43					87	86		
320-117508-41	NK283629, S. calypteata, Liver, MSB1011446, P44	72	111	128	137			125	155 *5+
320-117508-41 - DL	NK283629, S. calypteata, Liver, MSB1011446, P44					88	90		
320-117508-42	NK283631, L, A. americana, MSB1011511, P45	73	88	105	109	89	69	107	134

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# Isotope Dilution Summary

Client: University of New Mexico

Job ID: 320-117508-1

Project/Site: UNM\_PFAS in Tissue, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-117508-42 - DL	NK283631, L. A. americana, MS								
320-117508-43	NK283633, L. S. clypeata, MSB1011525, P46	76	94	125	114			112	119
320-117508-43 - DL	NK283633, L. S. clypeata, MSB1011525, P46					85	100		
320-117508-44	NK283641, L. S. clypeata, MSB1011577, P47	66	93	105	105	92		102	116
320-117508-44 - DL	NK283641, L. S. clypeata, MSB1011577, P47						104		
320-117508-45	NK283644, S. clypeata, Liver, MSB1011744, P48	80	109	124	108			114	152 *5+
320-117508-45 - DL	NK283644, S. clypeata, Liver, MSB1011744, P48					90	91		
320-117508-46	NK283669, S. clypeata, Liver, MSB1011800, P49	64	94	120	110	91		114	119
320-117508-46 - DL	NK283669, S. clypeata, Liver, MSB1011800, P49						89		
320-117508-47	NK283674, S. clypeata, Liver, MSB1011812, P50	47	81	116	116			117	160 *5+
320-117508-47 - DL	NK283674, S. clypeata, Liver, MSB1011812, P50					86	93		
LCS 320-820079/2-A	Lab Control Sample	67	68	73	67	64	63	66	64
LCS 320-820824/2-A	Lab Control Sample	83	94	97	99	89	95	102	96
LCS 320-820977/2-A	Lab Control Sample	104	96	107	105	97	101	110	98
LCSD 320-820079/3-A	Lab Control Sample Dup	91	77	98	86	86	87	91	86
LCSD 320-820824/3-A	Lab Control Sample Dup	78	88	99	90	90	89	102	92
LCSD 320-820977/3-A	Lab Control Sample Dup	86	89	114	96	99	101	105	95
MB 320-820079/1-A	Method Blank	75	80	83	80	68	71	79	72
MB 320-820824/1-A	Method Blank	89	76	99	88	88	88	99	91
MB 320-820977/1-A	Method Blank	90	85	88	93	91	92	98	91
Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)	
		87	112	90	153 *5+	127		499 *5+	
320-117508-1	NK14474, MSB18488, Pool1, P								
320-117508-1 - RA	NK14474, MSB18488, Pool1, P1						153 *5+		
320-117508-2	NK9098, Liver, P2	83	101	84	133	101	81	452 *5+	
320-117508-3	NK2445, Liver, AFP7B, P3	85	94	84	77	78	77	300 *5+	
320-117508-4	NK2444, Liver, AFP7A, P4	76	92	80	81	112	81	480 *5+	
320-117508-5	NK35660, MSB29117, P5	86	98	87	142	155 *5+	97	454 *5+	
320-117508-6	NK35661, MSB29140, P6	74	85	78	146	140		323 *5+	
320-117508-6 - RA	NK35661, MSB29140, P6						188 *5+		
320-117508-7	NK35655, MSB29134, P7	73	82	75	169 *5+	135		81	
320-117508-7 - RA	NK35655, MSB29134, P7						158 *5+		
320-117508-8	NK35811, MSB30651, P8	67	82	72	140	123		391 *5+	
320-117508-8 - RA	NK35811, MSB30651, P8						111		
320-117508-9	NK35643, MSB29100, P9	104	120	104	234 *5+	192 *5+	149	572 *5+	
320-117508-10	NK170946, P10	64	89	76	97	80	72	367 *5+	
320-117508-11	NK100328, Liver, AEPIR, P11	82	88	85	121	90	113	431 *5+	
320-117508-12	NK165232, MSB26431, P12	88	93	84	155 *5+	112	123	400 *5+	
320-117508-13	NK35676, MSB29118, P14	64	84	75	126	93	91	406 *5+	
320-117508-14	NK35678, MSB29131, P15	47	72	73	122	91		286 *5+	

Eurofins Sacramento

# Isotope Dilution Summary

Client: University of New Mexico

Job ID: 320-117508-1

Project/Site: UNM\_PFAS in Tissue, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)						
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)
320-117508-14 - RA	NK35678, MSB29131, P15						111	
320-117508-15	NK35669, MSB29093, P16	90	107	100	183 *5+	157 *5+		465 *5+
320-117508-15 - RA	NK35669, MSB29093, P16						189 *5+	
320-117508-16	NK35935, MSB39605, P17	64	95	87	143	132	162 *5+	311 *5+
320-117508-17	NK35958, MSB40165, P18	86	106	99	141	98	108	448 *5+
320-117508-18	NK35816, MSB30670, P19	88	111	98	171 *5+	159 *5+	141	479 *5+
320-117508-19	NK35804, MSB30716, P20	78	105	97	232 *5+	242 *5+	271 *5+	451 *5+
320-117508-20	NK35876, MSB39746, P22	101	118	104	160 *5+	183 *5+	146	442 *5+
320-117508-21	NK35910, MSB39349, P23	80	106	96	213 *5+	127	140	559 *5+
320-117508-22	NK35817, MSB30650, P24	95	106	103	162 *5+	146	138	605 *5+
320-117508-23	Pool 25, Duck PFAS, P25	88	110	101	172 *5+	168 *5+	136	581 *5+
320-117508-24	NK282630, MSB50169, P26	88	107	99	240 *5+	141	148	374 *5+
320-117508-25	NK276851, MSB46239, P28	80	97	91	124	100	96	403 *5+
320-117508-26	NK282547, MSB49842, P29	81	110	104	188 *5+	151 *5+	139	560 *5+
320-117508-27	NK276660, MSB45963, P30	80	99	91	106	127	93	518 *5+
320-117508-28	NK282696, MSB50223, P31	108	119	109	265 *5+	207 *5+	158 *5+	429 *5+
320-117508-29	NK283601, Spat. Cly, Liver, ABJ34298, MSB1011285, P32	99			147	133		632 *5+
320-117508-29 - RA	NK283601, Spat. Cly, Liver, ABJ34298, MSB1011285, P32						123	
320-117508-29 - DL	NK283601, Spat. Cly, Liver, ABJ34298, MSB1011285, P32		133	95				
320-117508-30	NK283602, JLW125, S. Calypeata, L, MSB1011279, P33	110		66	165 *5+	132		594 *5+
320-117508-30 - RA	NK283602, JLW125, S. Calypeata, L, MSB1011279, P33						107	
320-117508-30	NK283602, JLW125, S. Calypeata, L, MSB1011279, P33		96	90				
320-117508-31	NK283605, Liver, Spatula, MSB1011318, P34	89			125	162 *5+		572 *5+
320-117508-31 - RA	NK283605, Liver, Spatula, MSB1011318, P34						104	
320-117508-31 - DL	NK283605, Liver, Spatula, MSB1011318, P34		96	88				
320-117508-32	NK283606, Spatula, Liver, MSB1011339, P35	79			116	109		480 *5+
320-117508-32 - RA	NK283606, Spatula, Liver, MSB1011339, P35						90	
320-117508-32 - DL	NK283606, Spatula, Liver, MSB1011339, P35		88	77				
320-117508-33	NK283607, S. calypeata, Liver, MSB1011310, P36	88			141	161 *5+		585 *5+
320-117508-33 - DL	NK283607, S. calypeata, Liver, MSB1011310, P36		116	88				
320-117508-33 - RA	NK283607, S. calypeata, Liver, MSB1011310, P36						101	
320-117508-34	NK283608, S. calypeata, L, MSB1011324, P37	99			149	151 *5+		661 *5+
320-117508-34 - DL	NK283608, S. calypeata, L, MSB1011324, P37		121	82				
320-117508-34 - RA	NK283608, S. calypeata, L, MSB1011324, P37						151 *5+	

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# Isotope Dilution Summary

Client: University of New Mexico

Job ID: 320-117508-1

Project/Site: UNM\_PFAS in Tissue, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)						
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)
320-117508-35	NK283615, S. calyptata, L, MSE	102						
320-117508-35 - DL	NK283615, S. calyptata, L, MSB1011402, P38		100	81				
320-117508-35 - RA	NK283615, S. calyptata, L, MSB1011402, P38						111	
320-117508-36	NK283619, S. calyptata, L, MSB1011416, P39	97				131	130	534 *5+
320-117508-36 - DL	NK283619, S. calyptata, L, MSB1011416, P39		115	73				
320-117508-36 - RA	NK283619, S. calyptata, L, MSB1011416, P39						105	
320-117508-37	NK283621, S. calyptata, L, MSB1011430, P40	88		86	139	198 *5+		533 *5+
320-117508-37 - RA	NK283621, S. calyptata, L, MSB1011430, P40						118	
320-117508-37	NK283621, S. calyptata, L, MSB1011430, P40		91	77				
320-117508-38	NK283622, L, S. calyptata, MSB1011451, P41	89			130	125	92	359 *5+
320-117508-38 - DL	NK283622, L, S. calyptata, MSB1011451, P41		102	77				
320-117508-39	NK283626, S. calyptata, L, MSB1011466, P42	87			126	172 *5+	125	628 *5+
320-117508-39 - DL	NK283626, S. calyptata, L, MSB1011466, P42		131	76				
320-117508-40	NK283627, S. calyptata, L, MSB1011473, P43	98			156 *5+	150	118	619 *5+
320-117508-40 - DL	NK283627, S. calyptata, L, MSB1011473, P43		128	66				
320-117508-41	NK283629, S. calyptata, Liver, MSB1011446, P44	106			117	119	111	561 *5+
320-117508-41 - DL	NK283629, S. calyptata, Liver, MSB1011446, P44		117	78				
320-117508-42	NK283631, L, A. americana, MSB1011511, P45	103		80	130	151 *5+	84	578 *5+
320-117508-42 - DL	NK283631, L, A. americana, MSB1011511, P45		102	84				
320-117508-43	NK283633, L, S. clypeata, MSB1011525, P46	103			116	125	100	496 *5+
320-117508-43 - DL	NK283633, L, S. clypeata, MSB1011525, P46		128	90				
320-117508-44	NK283641, L, S. clypeata, MSB1011577, P47	89			119	98	88	448 *5+
320-117508-44 - DL	NK283641, L, S. clypeata, MSB1011577, P47		127	95				
320-117508-45	NK283644, S. clypeata, Liver, MSB1011744, P48	103			120	102	96	597 *5+
320-117508-45 - DL	NK283644, S. clypeata, Liver, MSB1011744, P48		122	83				
320-117508-46	NK283669, S. clypeata, Liver, MSB1011800, P49	114			108	91	87	539 *5+
320-117508-46 - DL	NK283669, S. clypeata, Liver, MSB1011800, P49		108	75				
320-117508-47	NK283674, S. clypeata, Liver, MSB1011812, P50	94			115	133	112	679 *5+
320-117508-47 - DL	NK283674, S. clypeata, Liver, MSB1011812, P50		128	88				

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# Isotope Dilution Summary

Client: University of New Mexico

Job ID: 320-117508-1

Project/Site: UNM\_PFAS in Tissue, Holloman

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

Matrix: Tissue

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)						
		C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)	M102FTS (25-150)
LCS 320-820079/2-A	Lab Control Sample	70	76	73	71	66	56	259 *5+
LCS 320-820824/2-A	Lab Control Sample	106	115	103	108	114	102	294 *5+
LCS 320-820977/2-A	Lab Control Sample	118	117	109	99	80	80	275 *5+
LCSD 320-820079/3-A	Lab Control Sample Dup	84	102	94	78	87	79	332 *5+
LCSD 320-820824/3-A	Lab Control Sample Dup	113	105	104	114	109	96	338 *5+
LCSD 320-820977/3-A	Lab Control Sample Dup	95	111	103	88	80	83	309 *5+
MB 320-820079/1-A	Method Blank	67	87	84	73	79	68	307 *5+
MB 320-820824/1-A	Method Blank	86	101	94	109	112	108	400 *5+
MB 320-820977/1-A	Method Blank	73	96	95	96	94	79	335 *5+

### Surrogate Legend

PFBA = 13C4 PFBA

PPPeA = 13C5 PPPeA

PFHxA = 13C2 PFHxA

C4PFHA = 13C4 PFHpA

PFOA = 13C4 PFOA

PFNA = 13C5 PFNA

PFDA = 13C2 PFDA

PFUnA = 13C2 PFUnA

C3PFBS = 13C3 PFBS

PFHxS = 18O2 PFHxS

PFOS = 13C4 PFOS

M242FTS = M2-4:2 FTS

M262FTS = M2-6:2 FTS

M282FTS = M2-8:2 FTS

M102FTS = 13C2 10:2 FTS

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS

**Lab Sample ID: MB 320-820079/1-A**

**Matrix: Tissue**

**Analysis Batch: 820819**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 820079**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Total PFOA	ND		1.0	0.20	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.10	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.27	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Total PFHxS	ND		1.0	0.15	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
L-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Br-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
Total PFOS	ND		2.5	0.20	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
4:2 FTS	ND		1.0	0.27	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
6:2 FTS	ND		1.0	0.42	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
8:2 FTS	ND		1.0	0.10	ug/Kg		12/06/24 12:01	12/10/24 09:14	1
10:2 FTS	ND		1.0	0.10	ug/Kg		12/06/24 12:01	12/10/24 09:14	1

Isotope Dilution	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	75		25 - 150		12/06/24 12:01	12/10/24 09:14
13C5 PFPeA	80		25 - 150		12/06/24 12:01	12/10/24 09:14
13C2 PFHxA	83		25 - 150		12/06/24 12:01	12/10/24 09:14
13C4 PFHpA	80		25 - 150		12/06/24 12:01	12/10/24 09:14
13C4 PFOA	68		25 - 150		12/06/24 12:01	12/10/24 09:14
13C5 PFNA	71		25 - 150		12/06/24 12:01	12/10/24 09:14
13C2 PFDA	79		25 - 150		12/06/24 12:01	12/10/24 09:14
13C2 PFUnA	72		25 - 150		12/06/24 12:01	12/10/24 09:14
13C3 PFBS	67		25 - 150		12/06/24 12:01	12/10/24 09:14
18O2 PFHxS	87		25 - 150		12/06/24 12:01	12/10/24 09:14
13C4 PFOS	84		25 - 150		12/06/24 12:01	12/10/24 09:14
M2-4:2 FTS	73		25 - 150		12/06/24 12:01	12/10/24 09:14
M2-6:2 FTS	79		25 - 150		12/06/24 12:01	12/10/24 09:14
M2-8:2 FTS	68		25 - 150		12/06/24 12:01	12/10/24 09:14
13C2 10:2 FTS	307 *5+		25 - 150		12/06/24 12:01	12/10/24 09:14

**Lab Sample ID: LCS 320-820079/2-A**

**Matrix: Tissue**

**Analysis Batch: 820819**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 820079**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	10.0	10.4		ug/Kg		104	76 - 136

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-820079/2-A**

**Matrix: Tissue**

**Analysis Batch: 820819**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 820079**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoropentanoic acid (PFPeA)	10.0	9.28		ug/Kg		93	69 - 129
Perfluorohexanoic acid (PFHxA)	10.0	9.11		ug/Kg		91	71 - 131
Perfluoroheptanoic acid (PFHpA)	10.0	10.6		ug/Kg		106	71 - 131
L-Perfluoroctanoic acid	10.0	10.8		ug/Kg		108	72 - 132
Total PFOA	10.0	10.8		ug/Kg		108	
Perfluorononanoic acid (PFNA)	10.0	10.2		ug/Kg		102	73 - 133
Perfluorodecanoic acid (PFDA)	10.0	10.9		ug/Kg		109	72 - 132
Perfluoroundecanoic acid (PFUnA)	10.0	9.34		ug/Kg		93	66 - 126
Perfluorobutanesulfonic acid (PFBS)	8.88	7.29		ug/Kg		82	69 - 129
Perfluoropentanesulfonic acid (PFPeS)	9.40	9.13		ug/Kg		97	66 - 126
Total PFHxS	9.12	8.53		ug/Kg		94	
L-Perfluorohexanesulfonic acid	9.12	8.53		ug/Kg		94	62 - 122
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.5		ug/Kg		110	76 - 136
L-Perfluoroctanesulfonic acid	9.30	9.33		ug/Kg		100	68 - 141
Total PFOS	9.30	9.33		ug/Kg		100	
4:2 FTS	9.38	9.46		ug/Kg		101	68 - 143
6:2 FTS	9.52	10.2		ug/Kg		107	73 - 139
8:2 FTS	9.60	11.1		ug/Kg		115	75 - 135
10:2 FTS	9.66	8.89		ug/Kg		92	69 - 145

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	67		25 - 150
13C5 PFPeA	68		25 - 150
13C2 PFHxA	73		25 - 150
13C4 PFHpA	67		25 - 150
13C4 PFOA	64		25 - 150
13C5 PFNA	63		25 - 150
13C2 PFDA	66		25 - 150
13C2 PFUnA	64		25 - 150
13C3 PFBS	70		25 - 150
18O2 PFHxS	76		25 - 150
13C4 PFOS	73		25 - 150
M2-4:2 FTS	71		25 - 150
M2-6:2 FTS	66		25 - 150
M2-8:2 FTS	56		25 - 150
13C2 10:2 FTS	259 *5+		25 - 150

**Lab Sample ID: LCSD 320-820079/3-A**

**Matrix: Tissue**

**Analysis Batch: 820819**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 820079**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	10.0	10.3		ug/Kg		103	76 - 136	1	30
Perfluoropentanoic acid (PFPeA)	10.0	10.9		ug/Kg		109	69 - 129	16	30
Perfluorohexanoic acid (PFHxA)	10.0	10.0		ug/Kg		100	71 - 131	9	30
Perfluoroheptanoic acid (PFHpA)	10.0	12.1		ug/Kg		121	71 - 131	13	30

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-820079/3-A**

**Matrix: Tissue**

**Analysis Batch: 820819**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 820079**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
L-Perfluoroctanoic acid	10.0	10.2		ug/Kg		102	72 - 132	5	30
Total PFOA	10.0	10.2		ug/Kg		102		5	
Perfluorononanoic acid (PFNA)	10.0	10.6		ug/Kg		106	73 - 133	4	30
Perfluorodecanoic acid (PFDA)	10.0	11.1		ug/Kg		111	72 - 132	1	30
Perfluoroundecanoic acid (PFUnA)	10.0	9.86		ug/Kg		99	66 - 126	5	30
Perfluorobutanesulfonic acid (PFBS)	8.88	9.17		ug/Kg		103	69 - 129	23	30
Perfluoropentanesulfonic acid (PFPeS)	9.40	11.7		ug/Kg		124	66 - 126	24	30
Total PFHxS	9.12	8.62		ug/Kg		95		1	
L-Perfluorohexanesulfonic acid	9.12	8.62		ug/Kg		95	62 - 122	1	30
Perfluoroheptanesulfonic acid (PFHpS)	9.54	11.5		ug/Kg		121	76 - 136	10	30
L-Perfluoroctanesulfonic acid	9.30	10.2		ug/Kg		110	68 - 141	9	30
Total PFOS	9.30	10.2		ug/Kg		110		9	
4:2 FTS	9.38	13.0	*1	ug/Kg		139	68 - 143	32	30
6:2 FTS	9.52	10.2		ug/Kg		107	73 - 139	0	30
8:2 FTS	9.60	11.8		ug/Kg		122	75 - 135	6	30
10:2 FTS	9.66	9.87		ug/Kg		102	69 - 145	10	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	91		25 - 150
13C5 PFPeA	77		25 - 150
13C2 PFHxA	98		25 - 150
13C4 PFHpA	86		25 - 150
13C4 PFOA	86		25 - 150
13C5 PFNA	87		25 - 150
13C2 PFDA	91		25 - 150
13C2 PFUnA	86		25 - 150
13C3 PFBS	84		25 - 150
18O2 PFHxS	102		25 - 150
13C4 PFOS	94		25 - 150
M2-4:2 FTS	78		25 - 150
M2-6:2 FTS	87		25 - 150
M2-8:2 FTS	79		25 - 150
13C2 10:2 FTS	332 *5+		25 - 150

**Lab Sample ID: MB 320-820824/1-A**

**Matrix: Tissue**

**Analysis Batch: 821645**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 820824**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		12/10/24 03:40	12/12/24 22:55	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		12/10/24 03:40	12/12/24 22:55	1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg		12/10/24 03:40	12/12/24 22:55	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		12/10/24 03:40	12/12/24 22:55	1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/10/24 03:40	12/12/24 22:55	1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/10/24 03:40	12/12/24 22:55	1
Total PFOA	ND		1.0	0.20	ug/Kg		12/10/24 03:40	12/12/24 22:55	1

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: MB 320-820824/1-A**

**Matrix: Tissue**

**Analysis Batch: 821645**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 820824**

Analyte	Result	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier								
Perfluorononanoic acid (PFNA)	ND			1.0	0.18	ug/Kg				1
Perfluorodecanoic acid (PFDA)	ND			1.0	0.10	ug/Kg				1
Perfluoroundecanoic acid (PFUnA)	ND			1.0	0.27	ug/Kg				1
Perfluorobutanesulfonic acid (PFBS)	ND			1.0	0.17	ug/Kg				1
Perfluoropentanesulfonic acid (PFPeS)	ND			1.0	0.18	ug/Kg				1
Br-Perfluorohexanesulfonic acid	ND			1.0	0.15	ug/Kg				1
Total PFHxS	ND			1.0	0.15	ug/Kg				1
L-Perfluorohexanesulfonic acid	ND			1.0	0.15	ug/Kg				1
Perfluoroheptanesulfonic acid (PFHpS)	ND			1.0	0.19	ug/Kg				1
L-Perfluoroctanesulfonic acid	ND			2.5	0.20	ug/Kg				1
Br-Perfluoroctanesulfonic acid	ND			2.5	0.20	ug/Kg				1
Total PFOS	ND			2.5	0.20	ug/Kg				1
4:2 FTS	ND			1.0	0.27	ug/Kg				1
6:2 FTS	ND			1.0	0.42	ug/Kg				1
8:2 FTS	ND			1.0	0.10	ug/Kg				1
10:2 FTS	ND			1.0	0.10	ug/Kg				1

### MB MB

Isotope Dilution	%Recovery	MB		Limits	Prepared	Analyzed	Dil Fac
		Qualifier					
13C4 PFBA	89			25 - 150			1
13C5 PFPeA	76			25 - 150			1
13C2 PFHxA	99			25 - 150			1
13C4 PFHpA	88			25 - 150			1
13C4 PFOA	88			25 - 150			1
13C5 PFNA	88			25 - 150			1
13C2 PFDA	99			25 - 150			1
13C2 PFUnA	91			25 - 150			1
13C3 PFBS	86			25 - 150			1
18O2 PFHxS	101			25 - 150			1
13C4 PFOS	94			25 - 150			1
M2-4:2 FTS	109			25 - 150			1
M2-6:2 FTS	112			25 - 150			1
M2-8:2 FTS	108			25 - 150			1
13C2 10:2 FTS	400 *5+			25 - 150			1

**Lab Sample ID: LCS 320-820824/2-A**

**Matrix: Tissue**

**Analysis Batch: 821645**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 820824**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Perfluorobutanoic acid (PFBA)	10.0	8.85		ug/Kg		88	76 - 136
Perfluoropentanoic acid (PFPeA)	10.0	8.99		ug/Kg		90	69 - 129
Perfluorohexanoic acid (PFHxA)	10.0	8.95		ug/Kg		89	71 - 131
Perfluoroheptanoic acid (PFHpA)	10.0	9.55		ug/Kg		95	71 - 131
L-Perfluoroctanoic acid	10.0	9.58		ug/Kg		96	72 - 132
Total PFOA	10.0	9.58		ug/Kg		96	
Perfluorononanoic acid (PFNA)	10.0	9.04		ug/Kg		90	73 - 133
Perfluorodecanoic acid (PFDA)	10.0	9.67		ug/Kg		97	72 - 132

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-820824/2-A**

**Matrix: Tissue**

**Analysis Batch: 821645**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 820824**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoroundecanoic acid (PFUnA)	10.0	9.29		ug/Kg	93	66 - 126	
Perfluorobutanesulfonic acid (PFBS)	8.88	8.07		ug/Kg	91	69 - 129	
Perfluoropentanesulfonic acid (PFPeS)	9.40	8.59		ug/Kg	91	66 - 126	
Total PFHxS	9.12	7.53		ug/Kg	83		
L-Perfluorohexanesulfonic acid	9.12	7.53		ug/Kg	83	62 - 122	
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.2		ug/Kg	107	76 - 136	
L-Perfluoroctanesulfonic acid	9.30	8.87		ug/Kg	95	68 - 141	
Total PFOS	9.30	8.87		ug/Kg	95		
4:2 FTS	9.38	9.63		ug/Kg	103	68 - 143	
6:2 FTS	9.52	8.97		ug/Kg	94	73 - 139	
8:2 FTS	9.60	9.72		ug/Kg	101	75 - 135	
10:2 FTS	9.66	9.12		ug/Kg	94	69 - 145	

Isotope Dilution	%Recovery	LCS Qualifier	Limits
13C4 PFBA	83		25 - 150
13C5 PFPeA	94		25 - 150
13C2 PFHxA	97		25 - 150
13C4 PFHpA	99		25 - 150
13C4 PFOA	89		25 - 150
13C5 PFNA	95		25 - 150
13C2 PFDA	102		25 - 150
13C2 PFUnA	96		25 - 150
13C3 PFBS	106		25 - 150
18O2 PFHxS	115		25 - 150
13C4 PFOS	103		25 - 150
M2-4:2 FTS	108		25 - 150
M2-6:2 FTS	114		25 - 150
M2-8:2 FTS	102		25 - 150
13C2 10:2 FTS	294 *5+		25 - 150

**Lab Sample ID: LCSD 320-820824/3-A**

**Matrix: Tissue**

**Analysis Batch: 821645**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 820824**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	10.0	10.5		ug/Kg	105	76 - 136	17	30
Perfluoropentanoic acid (PFPeA)	10.0	10.3		ug/Kg	103	69 - 129	14	30
Perfluorohexanoic acid (PFHxA)	10.0	9.15		ug/Kg	91	71 - 131	2	30
Perfluoroheptanoic acid (PFHpA)	10.0	10.8		ug/Kg	108	71 - 131	12	30
L-Perfluoroctanoic acid	10.0	9.98		ug/Kg	100	72 - 132	4	30
Total PFOA	10.0	9.98		ug/Kg	100		4	
Perfluorononanoic acid (PFNA)	10.0	9.88		ug/Kg	99	73 - 133	9	30
Perfluorodecanoic acid (PFDA)	10.0	9.60		ug/Kg	96	72 - 132	1	30
Perfluoroundecanoic acid (PFUnA)	10.0	9.56		ug/Kg	96	66 - 126	3	30

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-820824/3-A**

**Matrix: Tissue**

**Analysis Batch: 821645**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 820824**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
				ug/Kg	92	Limits	1	30
Perfluorobutanesulfonic acid (PFBS)	8.88	8.19						
Perfluoropentanesulfonic acid (PFPeS)	9.40	8.17		ug/Kg	87	66 - 126	5	30
Total PFHxS	9.12	8.79		ug/Kg	96		15	
L-Perfluorohexanesulfonic acid	9.12	8.79		ug/Kg	96	62 - 122	15	30
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.7		ug/Kg	112	76 - 136	5	30
L-Perfluoroctanesulfonic acid	9.30	8.97		ug/Kg	96	68 - 141	1	30
Total PFOS	9.30	8.97		ug/Kg	96		1	
4:2 FTS	9.38	9.31		ug/Kg	99	68 - 143	3	30
6:2 FTS	9.52	10.0		ug/Kg	106	73 - 139	11	30
8:2 FTS	9.60	10.2		ug/Kg	107	75 - 135	5	30
10:2 FTS	9.66	8.84		ug/Kg	92	69 - 145	3	30

**LCSD LCSD**

<b>Isotope Dilution</b>	<b>LCSD</b>	<b>LCSD</b>	<b>Qualifier</b>	<b>Limits</b>
13C4 PFBA	78			25 - 150
13C5 PFPeA	88			25 - 150
13C2 PFHxA	99			25 - 150
13C4 PFHpA	90			25 - 150
13C4 PFOA	90			25 - 150
13C5 PFNA	89			25 - 150
13C2 PFDA	102			25 - 150
13C2 PFUnA	92			25 - 150
13C3 PFBS	113			25 - 150
18O2 PFHxS	105			25 - 150
13C4 PFOS	104			25 - 150
M2-4:2 FTS	114			25 - 150
M2-6:2 FTS	109			25 - 150
M2-8:2 FTS	96			25 - 150
13C2 10:2 FTS	338 *5+			25 - 150

**Lab Sample ID: MB 320-820977/1-A**

**Matrix: Tissue**

**Analysis Batch: 821394**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 820977**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.0	0.24	ug/Kg		12/10/24 13:20	12/11/24 19:07	1
Perfluoropentanoic acid (PFPeA)	ND		1.0	0.18	ug/Kg		12/10/24 13:20	12/11/24 19:07	1
Perfluorohexanoic acid (PFHxA)	ND		1.0	0.27	ug/Kg		12/10/24 13:20	12/11/24 19:07	1
Perfluoroheptanoic acid (PFHpA)	ND		1.0	0.12	ug/Kg		12/10/24 13:20	12/11/24 19:07	1
L-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/10/24 13:20	12/11/24 19:07	1
Br-Perfluoroctanoic acid	ND		1.0	0.20	ug/Kg		12/10/24 13:20	12/11/24 19:07	1
Total PFOA	ND		1.0	0.20	ug/Kg		12/10/24 13:20	12/11/24 19:07	1
Perfluorononanoic acid (PFNA)	ND		1.0	0.18	ug/Kg		12/10/24 13:20	12/11/24 19:07	1
Perfluorodecanoic acid (PFDA)	ND		1.0	0.10	ug/Kg		12/10/24 13:20	12/11/24 19:07	1
Perfluoroundecanoic acid (PFUnA)	ND		1.0	0.27	ug/Kg		12/10/24 13:20	12/11/24 19:07	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.0	0.17	ug/Kg		12/10/24 13:20	12/11/24 19:07	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.0	0.18	ug/Kg		12/10/24 13:20	12/11/24 19:07	1

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: MB 320-820977/1-A**

**Matrix: Tissue**

**Analysis Batch: 821394**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 820977**

Analyte	MB		RL	MDL	Unit	D	Prepared		Analyzed	Dil Fac	
	Result	Qualifier					Prepared	Analyzed			
Br-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg					1	
Total PFHxS	ND		1.0	0.15	ug/Kg					1	
L-Perfluorohexanesulfonic acid	ND		1.0	0.15	ug/Kg					1	
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.0	0.19	ug/Kg					1	
L-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg					1	
Br-Perfluoroctanesulfonic acid	ND		2.5	0.20	ug/Kg					1	
Total PFOS	ND		2.5	0.20	ug/Kg					1	
4:2 FTS	ND		1.0	0.27	ug/Kg					1	
6:2 FTS	ND		1.0	0.42	ug/Kg					1	
8:2 FTS	ND		1.0	0.10	ug/Kg					1	
10:2 FTS	ND		1.0	0.10	ug/Kg					1	
MB		MB									
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac		
13C4 PFBA	90		25 - 150				12/10/24 13:20	12/11/24 19:07	1		12
13C5 PFPeA	85		25 - 150				12/10/24 13:20	12/11/24 19:07	1		13
13C2 PFHxA	88		25 - 150				12/10/24 13:20	12/11/24 19:07	1		14
13C4 PFHpA	93		25 - 150				12/10/24 13:20	12/11/24 19:07	1		
13C4 PFOA	91		25 - 150				12/10/24 13:20	12/11/24 19:07	1		
13C5 PFNA	92		25 - 150				12/10/24 13:20	12/11/24 19:07	1		
13C2 PFDA	98		25 - 150				12/10/24 13:20	12/11/24 19:07	1		
13C2 PFUnA	91		25 - 150				12/10/24 13:20	12/11/24 19:07	1		
13C3 PFBS	73		25 - 150				12/10/24 13:20	12/11/24 19:07	1		
18O2 PFHxS	96		25 - 150				12/10/24 13:20	12/11/24 19:07	1		
13C4 PFOS	95		25 - 150				12/10/24 13:20	12/11/24 19:07	1		
M2-4:2 FTS	96		25 - 150				12/10/24 13:20	12/11/24 19:07	1		
M2-6:2 FTS	94		25 - 150				12/10/24 13:20	12/11/24 19:07	1		
M2-8:2 FTS	79		25 - 150				12/10/24 13:20	12/11/24 19:07	1		
13C2 10:2 FTS	335	*5+	25 - 150				12/10/24 13:20	12/11/24 19:07	1		

**Lab Sample ID: LCS 320-820977/2-A**

**Matrix: Tissue**

**Analysis Batch: 821394**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 820977**

Analyte	Spike		Result	LCS Qualifier	Unit	D	%Rec	%Rec	
	Added	LCS						Limits	
Perfluorobutanoic acid (PFBA)		10.0	9.58		ug/Kg		96	76 - 136	
Perfluoropentanoic acid (PFPeA)		10.0	10.1		ug/Kg		101	69 - 129	
Perfluorohexanoic acid (PFHxA)		10.0	9.55		ug/Kg		95	71 - 131	
Perfluoroheptanoic acid (PFHpA)		10.0	10.5		ug/Kg		105	71 - 131	
L-Perfluoroctanoic acid		10.0	9.77		ug/Kg		98	72 - 132	
Total PFOA		10.0	9.77		ug/Kg		98		
Perfluorononanoic acid (PFNA)		10.0	9.65		ug/Kg		97	73 - 133	
Perfluorodecanoic acid (PFDA)		10.0	10.4		ug/Kg		104	72 - 132	
Perfluoroundecanoic acid (PFUnA)		10.0	10.1		ug/Kg		101	66 - 126	
Perfluorobutanesulfonic acid (PFBS)		8.88	8.41		ug/Kg		95	69 - 129	
Perfluoropentanesulfonic acid (PFPeS)		9.40	8.78		ug/Kg		93	66 - 126	
Total PFHxS		9.12	8.39		ug/Kg		92		

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCS 320-820977/2-A**

**Matrix: Tissue**

**Analysis Batch: 821394**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 820977**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
L-Perfluorohexanesulfonic acid	9.12	8.39		ug/Kg		92	62 - 122
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.4		ug/Kg		109	76 - 136
L-Perfluoroctanesulfonic acid	9.30	9.38		ug/Kg		101	68 - 141
Total PFOS	9.30	9.38		ug/Kg		101	
4:2 FTS	9.38	10.1		ug/Kg		107	68 - 143
6:2 FTS	9.52	10.8		ug/Kg		113	73 - 139
8:2 FTS	9.60	11.8		ug/Kg		123	75 - 135
10:2 FTS	9.66	9.74		ug/Kg		101	69 - 145

Isotope Dilution	%Recovery	LCS Qualifier	Limits
13C4 PFBA	104		25 - 150
13C5 PFPeA	96		25 - 150
13C2 PFHxA	107		25 - 150
13C4 PFHpA	105		25 - 150
13C4 PFOA	97		25 - 150
13C5 PFNA	101		25 - 150
13C2 PFDA	110		25 - 150
13C2 PFUnA	98		25 - 150
13C3 PFBS	118		25 - 150
18O2 PFHxS	117		25 - 150
13C4 PFOS	109		25 - 150
M2-4:2 FTS	99		25 - 150
M2-6:2 FTS	80		25 - 150
M2-8:2 FTS	80		25 - 150
13C2 10:2 FTS	275 *5+		25 - 150

**Lab Sample ID: LCSD 320-820977/3-A**

**Matrix: Tissue**

**Analysis Batch: 821394**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 820977**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
Perfluorobutanoic acid (PFBA)	10.0	11.2		ug/Kg		112	76 - 136	15
Perfluoropentanoic acid (PFPeA)	10.0	9.99		ug/Kg		100	69 - 129	1
Perfluorohexanoic acid (PFHxA)	10.0	9.29		ug/Kg		93	71 - 131	3
Perfluoroheptanoic acid (PFHpA)	10.0	10.8		ug/Kg		108	71 - 131	3
L-Perfluoroctanoic acid	10.0	9.73		ug/Kg		97	72 - 132	0
Total PFOA	10.0	9.73		ug/Kg		97		0
Perfluorononanoic acid (PFNA)	10.0	9.27		ug/Kg		93	73 - 133	4
Perfluorodecanoic acid (PFDA)	10.0	10.5		ug/Kg		105	72 - 132	1
Perfluoroundecanoic acid (PFUnA)	10.0	10.1		ug/Kg		101	66 - 126	0
Perfluorobutanesulfonic acid (PFBS)	8.88	9.34		ug/Kg		105	69 - 129	10
Perfluoropentanesulfonic acid (PFPeS)	9.40	11.2		ug/Kg		120	66 - 126	24
Total PFHxS	9.12	8.55		ug/Kg		94		2
L-Perfluorohexanesulfonic acid	9.12	8.55		ug/Kg		94	62 - 122	2
Perfluoroheptanesulfonic acid (PFHpS)	9.54	10.9		ug/Kg		114	76 - 136	5

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# QC Sample Results

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Method: B/L/T PFAS - Branched, Linear and Total PFAS (Continued)

**Lab Sample ID: LCSD 320-820977/3-A**

**Matrix: Tissue**

**Analysis Batch: 821394**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 820977**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
L-Perfluorooctanesulfonic acid	9.30	9.47		ug/Kg		102	68 - 141	1	30
Total PFOS	9.30	9.47		ug/Kg		102		1	
4:2 FTS	9.38	9.88		ug/Kg		105	68 - 143	2	30
6:2 FTS	9.52	10.8		ug/Kg		113	73 - 139	0	30
8:2 FTS	9.60	10.7		ug/Kg		111	75 - 135	10	30
10:2 FTS	9.66	10.3		ug/Kg		106	69 - 145	5	30

Isotope Dilution	LCSD	LCSD	Limits
	%Recovery	Qualifier	
13C4 PFBA	86		25 - 150
13C5 PFPeA	89		25 - 150
13C2 PFHxA	114		25 - 150
13C4 PFHpA	96		25 - 150
13C4 PFOA	99		25 - 150
13C5 PFNA	101		25 - 150
13C2 PFDA	105		25 - 150
13C2 PFUnA	95		25 - 150
13C3 PFBS	95		25 - 150
18O2 PFHxS	111		25 - 150
13C4 PFOS	103		25 - 150
M2-4:2 FTS	88		25 - 150
M2-6:2 FTS	80		25 - 150
M2-8:2 FTS	83		25 - 150
13C2 10:2 FTS	309 *5+		25 - 150

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# QC Association Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## LCMS

### Prep Batch: 820079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-1	NK14474, MSB18488, Pool1, P1	Total/NA	Tissue	SHAKE	820080
320-117508-1 - RA	NK14474, MSB18488, Pool1, P1	Total/NA	Tissue	SHAKE	820080
320-117508-2	NK9098, Liver, P2	Total/NA	Tissue	SHAKE	820080
320-117508-3	NK2445, Liver, AFP7B, P3	Total/NA	Tissue	SHAKE	820080
320-117508-4	NK2444, Liver, AFP7A, P4	Total/NA	Tissue	SHAKE	820080
320-117508-5	NK35660, MSB29117, P5	Total/NA	Tissue	SHAKE	820080
320-117508-6	NK35661, MSB29140, P6	Total/NA	Tissue	SHAKE	820080
320-117508-6 - RA	NK35661, MSB29140, P6	Total/NA	Tissue	SHAKE	820080
320-117508-7 - RA	NK35655, MSB29134, P7	Total/NA	Tissue	SHAKE	820080
320-117508-7	NK35655, MSB29134, P7	Total/NA	Tissue	SHAKE	820080
320-117508-8	NK35811, MSB30651, P8	Total/NA	Tissue	SHAKE	820080
320-117508-8 - RA	NK35811, MSB30651, P8	Total/NA	Tissue	SHAKE	820080
320-117508-9	NK35643, MSB29100, P9	Total/NA	Tissue	SHAKE	820080
320-117508-10	NK170946, P10	Total/NA	Tissue	SHAKE	820080
320-117508-11	NK100328, Liver, AEPIR, P11	Total/NA	Tissue	SHAKE	820080
320-117508-12	NK165232, MSB26431, P12	Total/NA	Tissue	SHAKE	820080
320-117508-13	NK35676, MSB29118, P14	Total/NA	Tissue	SHAKE	820080
320-117508-14	NK35678, MSB29131, P15	Total/NA	Tissue	SHAKE	820080
320-117508-14 - RA	NK35678, MSB29131, P15	Total/NA	Tissue	SHAKE	820080
320-117508-15 - RA	NK35669, MSB29093, P16	Total/NA	Tissue	SHAKE	820080
320-117508-15	NK35669, MSB29093, P16	Total/NA	Tissue	SHAKE	820080
320-117508-16	NK35935, MSB39605, P17	Total/NA	Tissue	SHAKE	820080
320-117508-17	NK35958, MSB40165, P18	Total/NA	Tissue	SHAKE	820080
320-117508-18	NK35816, MSB30670, P19	Total/NA	Tissue	SHAKE	820080
320-117508-19	NK35804, MSB30716, P20	Total/NA	Tissue	SHAKE	820080
320-117508-20	NK35876, MSB39746, P22	Total/NA	Tissue	SHAKE	820080
MB 320-820079/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-820079/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-820079/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

### Pre Prep Batch: 820080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-1	NK14474, MSB18488, Pool1, P1	Total/NA	Tissue	In-House	
320-117508-1 - RA	NK14474, MSB18488, Pool1, P1	Total/NA	Tissue	In-House	
320-117508-2	NK9098, Liver, P2	Total/NA	Tissue	In-House	
320-117508-3	NK2445, Liver, AFP7B, P3	Total/NA	Tissue	In-House	
320-117508-4	NK2444, Liver, AFP7A, P4	Total/NA	Tissue	In-House	
320-117508-5	NK35660, MSB29117, P5	Total/NA	Tissue	In-House	
320-117508-6 - RA	NK35661, MSB29140, P6	Total/NA	Tissue	In-House	
320-117508-6	NK35661, MSB29140, P6	Total/NA	Tissue	In-House	
320-117508-7	NK35655, MSB29134, P7	Total/NA	Tissue	In-House	
320-117508-7 - RA	NK35655, MSB29134, P7	Total/NA	Tissue	In-House	
320-117508-8	NK35811, MSB30651, P8	Total/NA	Tissue	In-House	
320-117508-8 - RA	NK35811, MSB30651, P8	Total/NA	Tissue	In-House	
320-117508-9	NK35643, MSB29100, P9	Total/NA	Tissue	In-House	
320-117508-10	NK170946, P10	Total/NA	Tissue	In-House	
320-117508-11	NK100328, Liver, AEPIR, P11	Total/NA	Tissue	In-House	
320-117508-12	NK165232, MSB26431, P12	Total/NA	Tissue	In-House	
320-117508-13	NK35676, MSB29118, P14	Total/NA	Tissue	In-House	
320-117508-14	NK35678, MSB29131, P15	Total/NA	Tissue	In-House	
320-117508-14 - RA	NK35678, MSB29131, P15	Total/NA	Tissue	In-House	

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# QC Association Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## LCMS (Continued)

### Pre Prep Batch: 820080 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-15 - RA	NK35669, MSB29093, P16	Total/NA	Tissue	In-House	
320-117508-15	NK35669, MSB29093, P16	Total/NA	Tissue	In-House	
320-117508-16	NK35935, MSB39605, P17	Total/NA	Tissue	In-House	
320-117508-17	NK35958, MSB40165, P18	Total/NA	Tissue	In-House	
320-117508-18	NK35816, MSB30670, P19	Total/NA	Tissue	In-House	
320-117508-19	NK35804, MSB30716, P20	Total/NA	Tissue	In-House	
320-117508-20	NK35876, MSB39746, P22	Total/NA	Tissue	In-House	

### Analysis Batch: 820819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-1	NK14474, MSB18488, Pool1, P1	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-2	NK9098, Liver, P2	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-3	NK2445, Liver, AFP7B, P3	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-4	NK2444, Liver, AFP7A, P4	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-5	NK35660, MSB29117, P5	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-6	NK35661, MSB29140, P6	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-7	NK35655, MSB29134, P7	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-8	NK35811, MSB30651, P8	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-10	NK170946, P10	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-11	NK100328, Liver, AEPIR, P11	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-12	NK165232, MSB26431, P12	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-13	NK35676, MSB29118, P14	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-14	NK35678, MSB29131, P15	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-15	NK35669, MSB29093, P16	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-16	NK35935, MSB39605, P17	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-17	NK35958, MSB40165, P18	Total/NA	Tissue	B/L/T PFAS	820079
MB 320-820079/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	820079
LCS 320-820079/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	820079
LCSD 320-820079/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	820079

### Pre Prep Batch: 820822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-21	NK35910, MSB39349, P23	Total/NA	Tissue	In-House	
320-117508-22	NK35817, MSB30650, P24	Total/NA	Tissue	In-House	
320-117508-23	Pool 25, Duck PFAS, P25	Total/NA	Tissue	In-House	
320-117508-24	NK282630, MSB50169, P26	Total/NA	Tissue	In-House	
320-117508-25	NK276851, MSB46239, P28	Total/NA	Tissue	In-House	
320-117508-26	NK282547, MSB49842, P29	Total/NA	Tissue	In-House	
320-117508-27	NK276660, MSB45963, P30	Total/NA	Tissue	In-House	
320-117508-28	NK282696, MSB50223, P31	Total/NA	Tissue	In-House	
320-117508-29 - RA	NK283601, Spat. Cly, Liver, ABJ34298, MSB101	Total/NA	Tissue	In-House	
320-117508-29 - DL	NK283601, Spat. Cly, Liver, ABJ34298, MSB101	Total/NA	Tissue	In-House	
320-117508-29	NK283601, Spat. Cly, Liver, ABJ34298, MSB101	Total/NA	Tissue	In-House	
320-117508-30	NK283602, JLW125, S. Calypeata, L, MSB10112	Total/NA	Tissue	In-House	
320-117508-30 - RA	NK283602, JLW125, S. Calypeata, L, MSB10112	Total/NA	Tissue	In-House	
320-117508-31 - DL	NK283605, Liver, Spatula, MSB1011318, P34	Total/NA	Tissue	In-House	
320-117508-31	NK283605, Liver, Spatula, MSB1011318, P34	Total/NA	Tissue	In-House	
320-117508-31 - RA	NK283605, Liver, Spatula, MSB1011318, P34	Total/NA	Tissue	In-House	
320-117508-32 - RA	NK283606, Spatula, Liver, MSB1011339, P35	Total/NA	Tissue	In-House	
320-117508-32 - DL	NK283606, Spatula, Liver, MSB1011339, P35	Total/NA	Tissue	In-House	
320-117508-32	NK283606, Spatula, Liver, MSB1011339, P35	Total/NA	Tissue	In-House	

Eurofins Sacramento

# QC Association Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## LCMS (Continued)

### Pre Prep Batch: 820822 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-33 - RA	NK283607, S. calypteata, Liver, MSB1011310, P:	Total/NA	Tissue	In-House	
320-117508-33	NK283607, S. calypteata, Liver, MSB1011310, P:	Total/NA	Tissue	In-House	
320-117508-33 - DL	NK283607, S. calypteata, Liver, MSB1011310, P:	Total/NA	Tissue	In-House	
320-117508-34 - DL	NK283608, S. calypteata, L, MSB1011324, P37	Total/NA	Tissue	In-House	
320-117508-34 - RA	NK283608, S. calypteata, L, MSB1011324, P37	Total/NA	Tissue	In-House	
320-117508-34	NK283608, S. calypteata, L, MSB1011324, P37	Total/NA	Tissue	In-House	
320-117508-35	NK283615, S. calypteata, L, MSB1011402, P38	Total/NA	Tissue	In-House	
320-117508-35 - DL	NK283615, S. calypteata, L, MSB1011402, P38	Total/NA	Tissue	In-House	
320-117508-35 - RA	NK283615, S. calypteata, L, MSB1011402, P38	Total/NA	Tissue	In-House	
320-117508-36	NK283619, S. calypteata, L, MSB1011416, P39	Total/NA	Tissue	In-House	
320-117508-36 - RA	NK283619, S. calypteata, L, MSB1011416, P39	Total/NA	Tissue	In-House	
320-117508-36 - DL	NK283619, S. calypteata, L, MSB1011416, P39	Total/NA	Tissue	In-House	
320-117508-37	NK283621, S. calypteata, L, MSB1011430, P40	Total/NA	Tissue	In-House	
320-117508-37 - RA	NK283621, S. calypteata, L, MSB1011430, P40	Total/NA	Tissue	In-House	
320-117508-38	NK283622, L, S. calypteata, MSB1011451, P41	Total/NA	Tissue	In-House	
320-117508-38 - DL	NK283622, L, S. calypteata, MSB1011451, P41	Total/NA	Tissue	In-House	
320-117508-39	NK283626, S. calypteata, L, MSB1011466, P42	Total/NA	Tissue	In-House	
320-117508-39 - DL	NK283626, S. calypteata, L, MSB1011466, P42	Total/NA	Tissue	In-House	
320-117508-40	NK283627, S. calypteata, L, MSB1011473, P43	Total/NA	Tissue	In-House	
320-117508-40 - DL	NK283627, S. calypteata, L, MSB1011473, P43	Total/NA	Tissue	In-House	

### Prep Batch: 820824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-21	NK35910, MSB39349, P23	Total/NA	Tissue	SHAKE	820822
320-117508-22	NK35817, MSB30650, P24	Total/NA	Tissue	SHAKE	820822
320-117508-23	Pool 25, Duck PFAS, P25	Total/NA	Tissue	SHAKE	820822
320-117508-24	NK282630, MSB50169, P26	Total/NA	Tissue	SHAKE	820822
320-117508-25	NK276851, MSB46239, P28	Total/NA	Tissue	SHAKE	820822
320-117508-26	NK282547, MSB49842, P29	Total/NA	Tissue	SHAKE	820822
320-117508-27	NK276660, MSB45963, P30	Total/NA	Tissue	SHAKE	820822
320-117508-28	NK282696, MSB50223, P31	Total/NA	Tissue	SHAKE	820822
320-117508-29 - DL	NK283601, Spat. Cly, Liver, ABJ34298, MSB101:	Total/NA	Tissue	SHAKE	820822
320-117508-29	NK283601, Spat. Cly, Liver, ABJ34298, MSB101:	Total/NA	Tissue	SHAKE	820822
320-117508-29 - RA	NK283601, Spat. Cly, Liver, ABJ34298, MSB101:	Total/NA	Tissue	SHAKE	820822
320-117508-30	NK283602, JLW125, S. Calypeata, L, MSB10112:	Total/NA	Tissue	SHAKE	820822
320-117508-30 - RA	NK283602, JLW125, S. Calypeata, L, MSB10112:	Total/NA	Tissue	SHAKE	820822
320-117508-31 - DL	NK283605, Liver, Spatula, MSB1011318, P34	Total/NA	Tissue	SHAKE	820822
320-117508-31 - RA	NK283605, Liver, Spatula, MSB1011318, P34	Total/NA	Tissue	SHAKE	820822
320-117508-31	NK283605, Liver, Spatula, MSB1011318, P34	Total/NA	Tissue	SHAKE	820822
320-117508-32	NK283606, Spatula, Liver, MSB1011339, P35	Total/NA	Tissue	SHAKE	820822
320-117508-32 - RA	NK283606, Spatula, Liver, MSB1011339, P35	Total/NA	Tissue	SHAKE	820822
320-117508-32 - DL	NK283606, Spatula, Liver, MSB1011339, P35	Total/NA	Tissue	SHAKE	820822
320-117508-33 - RA	NK283607, S. calypteata, Liver, MSB1011310, P:	Total/NA	Tissue	SHAKE	820822
320-117508-33 - DL	NK283607, S. calypteata, Liver, MSB1011310, P:	Total/NA	Tissue	SHAKE	820822
320-117508-33	NK283607, S. calypteata, Liver, MSB1011310, P:	Total/NA	Tissue	SHAKE	820822
320-117508-34 - DL	NK283608, S. calypteata, L, MSB1011324, P37	Total/NA	Tissue	SHAKE	820822
320-117508-34 - RA	NK283608, S. calypteata, L, MSB1011324, P37	Total/NA	Tissue	SHAKE	820822
320-117508-34	NK283608, S. calypteata, L, MSB1011324, P37	Total/NA	Tissue	SHAKE	820822
320-117508-35 - RA	NK283615, S. calypteata, L, MSB1011402, P38	Total/NA	Tissue	SHAKE	820822
320-117508-35 - DL	NK283615, S. calypteata, L, MSB1011402, P38	Total/NA	Tissue	SHAKE	820822
320-117508-35	NK283615, S. calypteata, L, MSB1011402, P38	Total/NA	Tissue	SHAKE	820822

Eurofins Sacramento

# QC Association Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## LCMS (Continued)

### Prep Batch: 820824 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-36 - DL	NK283619, S. calyptata, L, MSB1011416, P39	Total/NA	Tissue	SHAKE	820822
320-117508-36	NK283619, S. calyptata, L, MSB1011416, P39	Total/NA	Tissue	SHAKE	820822
320-117508-36 - RA	NK283619, S. calyptata, L, MSB1011416, P39	Total/NA	Tissue	SHAKE	820822
320-117508-37 - RA	NK283621, S. calyptata, L, MSB1011430, P40	Total/NA	Tissue	SHAKE	820822
320-117508-37	NK283621, S. calyptata, L, MSB1011430, P40	Total/NA	Tissue	SHAKE	820822
320-117508-38	NK283622, L, S. calyptata, MSB1011451, P41	Total/NA	Tissue	SHAKE	820822
320-117508-38 - DL	NK283622, L, S. calyptata, MSB1011451, P41	Total/NA	Tissue	SHAKE	820822
320-117508-39 - DL	NK283626, S. calyptata, L, MSB1011466, P42	Total/NA	Tissue	SHAKE	820822
320-117508-39	NK283626, S. calyptata, L, MSB1011466, P42	Total/NA	Tissue	SHAKE	820822
320-117508-40	NK283627, S. calyptata, L, MSB1011473, P43	Total/NA	Tissue	SHAKE	820822
320-117508-40 - DL	NK283627, S. calyptata, L, MSB1011473, P43	Total/NA	Tissue	SHAKE	820822
MB 320-820824/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-820824/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-820824/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

### Pre Prep Batch: 820939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-41	NK283629, S. calyptata, Liver, MSB1011446, P4	Total/NA	Tissue	In-House	
320-117508-41 - DL	NK283629, S. calyptata, Liver, MSB1011446, P4	Total/NA	Tissue	In-House	
320-117508-42	NK283631, L, A. americana, MSB1011511, P45	Total/NA	Tissue	In-House	
320-117508-42 - DL	NK283631, L, A. americana, MSB1011511, P45	Total/NA	Tissue	In-House	
320-117508-43 - DL	NK283633, L, S. clypeata, MSB1011525, P46	Total/NA	Tissue	In-House	
320-117508-43	NK283633, L, S. clypeata, MSB1011525, P46	Total/NA	Tissue	In-House	
320-117508-44 - DL	NK283641, L, S. clypeata, MSB1011577, P47	Total/NA	Tissue	In-House	
320-117508-44	NK283641, L, S. clypeata, MSB1011577, P47	Total/NA	Tissue	In-House	
320-117508-45	NK283644, S. clypeata, Liver, MSB1011744, P48	Total/NA	Tissue	In-House	
320-117508-45 - DL	NK283644, S. clypeata, Liver, MSB1011744, P48	Total/NA	Tissue	In-House	
320-117508-46	NK283669, S. clypeata, Liver, MSB1011800, P49	Total/NA	Tissue	In-House	
320-117508-46 - DL	NK283669, S. clypeata, Liver, MSB1011800, P49	Total/NA	Tissue	In-House	
320-117508-47	NK283674, S. clypeata, Liver, MSB1011812, P50	Total/NA	Tissue	In-House	
320-117508-47 - DL	NK283674, S. clypeata, Liver, MSB1011812, P50	Total/NA	Tissue	In-House	

### Prep Batch: 820977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-41	NK283629, S. calyptata, Liver, MSB1011446, P4	Total/NA	Tissue	SHAKE	820939
320-117508-41 - DL	NK283629, S. calyptata, Liver, MSB1011446, P4	Total/NA	Tissue	SHAKE	820939
320-117508-42	NK283631, L, A. americana, MSB1011511, P45	Total/NA	Tissue	SHAKE	820939
320-117508-42 - DL	NK283631, L, A. americana, MSB1011511, P45	Total/NA	Tissue	SHAKE	820939
320-117508-43 - DL	NK283633, L, S. clypeata, MSB1011525, P46	Total/NA	Tissue	SHAKE	820939
320-117508-43	NK283633, L, S. clypeata, MSB1011525, P46	Total/NA	Tissue	SHAKE	820939
320-117508-44 - DL	NK283641, L, S. clypeata, MSB1011577, P47	Total/NA	Tissue	SHAKE	820939
320-117508-44	NK283641, L, S. clypeata, MSB1011577, P47	Total/NA	Tissue	SHAKE	820939
320-117508-45	NK283644, S. clypeata, Liver, MSB1011744, P48	Total/NA	Tissue	SHAKE	820939
320-117508-45 - DL	NK283644, S. clypeata, Liver, MSB1011744, P48	Total/NA	Tissue	SHAKE	820939
320-117508-46	NK283669, S. clypeata, Liver, MSB1011800, P49	Total/NA	Tissue	SHAKE	820939
320-117508-46 - DL	NK283669, S. clypeata, Liver, MSB1011800, P49	Total/NA	Tissue	SHAKE	820939
320-117508-47	NK283674, S. clypeata, Liver, MSB1011812, P50	Total/NA	Tissue	SHAKE	820939
320-117508-47 - DL	NK283674, S. clypeata, Liver, MSB1011812, P50	Total/NA	Tissue	SHAKE	820939
MB 320-820977/1-A	Method Blank	Total/NA	Tissue	SHAKE	
LCS 320-820977/2-A	Lab Control Sample	Total/NA	Tissue	SHAKE	
LCSD 320-820977/3-A	Lab Control Sample Dup	Total/NA	Tissue	SHAKE	

Eurofins Sacramento

# QC Association Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## LCMS

### Analysis Batch: 821391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-1 - RA	NK14474, MSB18488, Pool1, P1	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-6 - RA	NK35661, MSB29140, P6	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-7 - RA	NK35655, MSB29134, P7	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-8 - RA	NK35811, MSB30651, P8	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-9	NK35643, MSB29100, P9	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-14 - RA	NK35678, MSB29131, P15	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-15 - RA	NK35669, MSB29093, P16	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-18	NK35816, MSB30670, P19	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-19	NK35804, MSB30716, P20	Total/NA	Tissue	B/L/T PFAS	820079
320-117508-20	NK35876, MSB39746, P22	Total/NA	Tissue	B/L/T PFAS	820079

### Analysis Batch: 821394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-41	NK283629, S. calyptata, Liver, MSB1011446, P4	Total/NA	Tissue	B/L/T PFAS	820977
320-117508-42	NK283631, L. A. americana, MSB1011511, P45	Total/NA	Tissue	B/L/T PFAS	820977
320-117508-43	NK283633, L. S. clypeata, MSB1011525, P46	Total/NA	Tissue	B/L/T PFAS	820977
320-117508-44	NK283641, L. S. clypeata, MSB1011577, P47	Total/NA	Tissue	B/L/T PFAS	820977
320-117508-45	NK283644, S. clypeata, Liver, MSB1011744, P48	Total/NA	Tissue	B/L/T PFAS	820977
320-117508-46	NK283669, S. clypeata, Liver, MSB1011800, P49	Total/NA	Tissue	B/L/T PFAS	820977
320-117508-47	NK283674, S. clypeata, Liver, MSB1011812, P50	Total/NA	Tissue	B/L/T PFAS	820977
MB 320-820977/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	820977
LCS 320-820977/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	820977
LCSD 320-820977/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	820977

### Analysis Batch: 821644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-41 - DL	NK283629, S. calyptata, Liver, MSB1011446, P4	Total/NA	Tissue	B/L/T PFAS	820977
320-117508-43 - DL	NK283633, L. S. clypeata, MSB1011525, P46	Total/NA	Tissue	B/L/T PFAS	820977
320-117508-44 - DL	NK283641, L. S. clypeata, MSB1011577, P47	Total/NA	Tissue	B/L/T PFAS	820977
320-117508-45 - DL	NK283644, S. clypeata, Liver, MSB1011744, P48	Total/NA	Tissue	B/L/T PFAS	820977
320-117508-46 - DL	NK283669, S. clypeata, Liver, MSB1011800, P49	Total/NA	Tissue	B/L/T PFAS	820977
320-117508-47 - DL	NK283674, S. clypeata, Liver, MSB1011812, P50	Total/NA	Tissue	B/L/T PFAS	820977

### Analysis Batch: 821645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-21	NK35910, MSB39349, P23	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-22	NK35817, MSB30650, P24	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-23	Pool 25, Duck PFAS, P25	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-24	NK282630, MSB50169, P26	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-25	NK276851, MSB46239, P28	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-26	NK282547, MSB49842, P29	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-27	NK276660, MSB45963, P30	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-28	NK282696, MSB50223, P31	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-29	NK283601, Spat. Cly, Liver, ABJ34298, MSB101	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-30	NK283602, JLW125, S. Calypeata, L, MSB10112	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-31	NK283605, Liver, Spatula, MSB1011318, P34	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-32	NK283606, Spatula, Liver, MSB1011339, P35	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-33	NK283607, S. calyptata, Liver, MSB1011310, P36	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-34	NK283608, S. calyptata, L, MSB1011324, P37	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-35	NK283615, S. calyptata, L, MSB1011402, P38	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-36	NK283619, S. calyptata, L, MSB1011416, P39	Total/NA	Tissue	B/L/T PFAS	820824

Eurofins Sacramento

# QC Association Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## LCMS (Continued)

### Analysis Batch: 821645 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-37	NK283621, S. calypteata, L, MSB1011430, P40	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-38	NK283622, L, S. calypteata, MSB1011451, P41	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-39	NK283626, S. calypteata, L, MSB1011466, P42	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-40	NK283627, S. calypteata, L, MSB1011473, P43	Total/NA	Tissue	B/L/T PFAS	820824
MB 320-820824/1-A	Method Blank	Total/NA	Tissue	B/L/T PFAS	820824
LCS 320-820824/2-A	Lab Control Sample	Total/NA	Tissue	B/L/T PFAS	820824
LCSD 320-820824/3-A	Lab Control Sample Dup	Total/NA	Tissue	B/L/T PFAS	820824

### Analysis Batch: 822235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-29 - RA	NK283601, Spat. Cly, Liver, ABJ34298, MSB101	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-30 - RA	NK283602, JLW125, S. Calypeata, L, MSB10112	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-31 - DL	NK283605, Liver, Spatula, MSB1011318, P34	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-31 - RA	NK283605, Liver, Spatula, MSB1011318, P34	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-32 - DL	NK283606, Spatula, Liver, MSB1011339, P35	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-32 - RA	NK283606, Spatula, Liver, MSB1011339, P35	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-33 - DL	NK283607, S. calypteata, Liver, MSB1011310, P	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-33 - RA	NK283607, S. calypteata, Liver, MSB1011310, P	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-34 - DL	NK283608, S. calypteata, L, MSB1011324, P37	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-34 - RA	NK283608, S. calypteata, L, MSB1011324, P37	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-35 - DL	NK283615, S. calypteata, L, MSB1011402, P38	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-35 - RA	NK283615, S. calypteata, L, MSB1011402, P38	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-36 - DL	NK283619, S. calypteata, L, MSB1011416, P39	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-36 - RA	NK283619, S. calypteata, L, MSB1011416, P39	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-37 - RA	NK283621, S. calypteata, L, MSB1011430, P40	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-38 - DL	NK283622, L, S. calypteata, MSB1011451, P41	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-39 - DL	NK283626, S. calypteata, L, MSB1011466, P42	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-40 - DL	NK283627, S. calypteata, L, MSB1011473, P43	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-42 - DL	NK283631, L, A. americana, MSB1011511, P45	Total/NA	Tissue	B/L/T PFAS	820977

### Analysis Batch: 822525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-29 - DL	NK283601, Spat. Cly, Liver, ABJ34298, MSB101	Total/NA	Tissue	B/L/T PFAS	820824

### Analysis Batch: 823808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117508-30	NK283602, JLW125, S. Calypeata, L, MSB10112	Total/NA	Tissue	B/L/T PFAS	820824
320-117508-37	NK283621, S. calypteata, L, MSB1011430, P40	Total/NA	Tissue	B/L/T PFAS	820824

Eurofins Sacramento

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK14474, MSB18488, Pool1, P1**

**Lab Sample ID: 320-117508-1**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			0.97 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 10:12	S1C	EET SAC
Total/NA	Prep	SHAKE	RA		0.97 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	821391	12/11/24 14:35	S1C	EET SAC

**Client Sample ID: NK9098, Liver, P2**

**Lab Sample ID: 320-117508-2**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.19 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 10:31	S1C	EET SAC

**Client Sample ID: NK2445, Liver, AFP7B, P3**

**Lab Sample ID: 320-117508-3**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.08 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 10:51	S1C	EET SAC

**Client Sample ID: NK2444, Liver, AFP7A, P4**

**Lab Sample ID: 320-117508-4**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.04 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 11:10	S1C	EET SAC

**Client Sample ID: NK35660, MSB29117, P5**

**Lab Sample ID: 320-117508-5**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.04 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 11:30	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35661, MSB29140, P6**

**Lab Sample ID: 320-117508-6**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.03 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 11:49	S1C	EET SAC
Total/NA	Prep	SHAKE	RA		1.03 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	821391	12/11/24 14:55	S1C	EET SAC

**Client Sample ID: NK35655, MSB29134, P7**

**Lab Sample ID: 320-117508-7**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.01 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 12:08	S1C	EET SAC
Total/NA	Prep	SHAKE	RA		1.01 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	821391	12/11/24 15:14	S1C	EET SAC

**Client Sample ID: NK35811, MSB30651, P8**

**Lab Sample ID: 320-117508-8**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.06 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 12:47	S1C	EET SAC
Total/NA	Prep	SHAKE	RA		1.06 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	821391	12/11/24 15:34	S1C	EET SAC

**Client Sample ID: NK35643, MSB29100, P9**

**Lab Sample ID: 320-117508-9**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.08 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821391	12/11/24 15:53	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK170946, P10**  
**Date Collected: 12/04/24 00:00**  
**Date Received: 12/05/24 09:35**

**Lab Sample ID: 320-117508-10**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			0.98 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 13:26	S1C	EET SAC

**Client Sample ID: NK100328, Liver, AEPIR, P11**  
**Date Collected: 12/04/24 00:00**  
**Date Received: 12/05/24 09:35**

**Lab Sample ID: 320-117508-11**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			0.96 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 13:45	S1C	EET SAC

**Client Sample ID: NK165232, MSB26431, P12**  
**Date Collected: 12/04/24 00:00**  
**Date Received: 12/05/24 09:35**

**Lab Sample ID: 320-117508-12**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			0.86 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 14:05	S1C	EET SAC

**Client Sample ID: NK35676, MSB29118, P14**  
**Date Collected: 12/04/24 00:00**  
**Date Received: 12/05/24 09:35**

**Lab Sample ID: 320-117508-13**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.00 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 14:24	S1C	EET SAC

**Client Sample ID: NK35678, MSB29131, P15**  
**Date Collected: 12/04/24 00:00**  
**Date Received: 12/05/24 09:35**

**Lab Sample ID: 320-117508-14**  
**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.02 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 14:44	S1C	EET SAC
Total/NA	Prep	SHAKE	RA		1.02 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	821391	12/11/24 16:12	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35669, MSB29093, P16**

**Lab Sample ID: 320-117508-15**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			0.99 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 15:03	S1C	EET SAC
Total/NA	Prep	SHAKE	RA		0.99 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	821391	12/11/24 16:32	S1C	EET SAC

**Client Sample ID: NK35935, MSB39605, P17**

**Lab Sample ID: 320-117508-16**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.01 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 15:23	S1C	EET SAC

**Client Sample ID: NK35958, MSB40165, P18**

**Lab Sample ID: 320-117508-17**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.00 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	820819	12/10/24 15:42	S1C	EET SAC

**Client Sample ID: NK35816, MSB30670, P19**

**Lab Sample ID: 320-117508-18**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.96 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821391	12/11/24 16:51	S1C	EET SAC

**Client Sample ID: NK35804, MSB30716, P20**

**Lab Sample ID: 320-117508-19**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			1.07 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821391	12/11/24 17:11	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK35876, MSB39746, P22**

**Lab Sample ID: 320-117508-20**

Matrix: Tissue

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			0.99 g	10.0 mL	820079	12/06/24 12:01	ATB	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820080	12/06/24 12:03	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821391	12/11/24 17:49	S1C	EET SAC

**Client Sample ID: NK35910, MSB39349, P23**

**Lab Sample ID: 320-117508-21**

Matrix: Tissue

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			0.97 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/12/24 23:53	S1C	EET SAC

**Client Sample ID: NK35817, MSB30650, P24**

**Lab Sample ID: 320-117508-22**

Matrix: Tissue

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			0.95 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 00:13	S1C	EET SAC

**Client Sample ID: Pool 25, Duck PFAS, P25**

**Lab Sample ID: 320-117508-23**

Matrix: Tissue

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			0.89 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 00:32	S1C	EET SAC

**Client Sample ID: NK282630, MSB50169, P26**

**Lab Sample ID: 320-117508-24**

Matrix: Tissue

Date Collected: 12/04/24 00:00

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			0.68 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 00:51	S1C	EET SAC

Eurofins Sacramento

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## **Client Sample ID: NK276851, MSB46239, P28**

## **Lab Sample ID: 320-117508-25**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			0.78 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 01:11	S1C	EET SAC

## **Client Sample ID: NK282547, MSB49842, P29**

## **Lab Sample ID: 320-117508-26**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.10 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 01:30	S1C	EET SAC

## **Client Sample ID: NK276660, MSB45963, P30**

## **Lab Sample ID: 320-117508-27**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			0.58 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 01:50	S1C	EET SAC

## **Client Sample ID: NK282696, MSB50223, P31**

## **Lab Sample ID: 320-117508-28**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			0.57 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 02:29	S1C	EET SAC

## **Client Sample ID: NK283601, Spat. Cly, Liver, ABJ34298, MSB1011285, P32**

## **Lab Sample ID: 320-117508-29**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.67 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 02:48	S1C	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	RA		1.67 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	822235	12/16/24 20:53	S1C	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	DL		1.67 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	822525	12/17/24 08:32	S1C	EET SAC

Eurofins Sacramento

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283602, JLW125, S. Calypeata, L, MSB1011279, P33**

**Lab Sample ID: 320-117508-30**

Date Collected: 12/04/24 00:00

Matrix: Tissue

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.02 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 03:07	S1C	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	RA		1.02 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	822235	12/16/24 16:21	S1C	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.02 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		100	1 mL	1 mL	823808	12/21/24 00:33	S1C	EET SAC

**Client Sample ID: NK283605, Liver, Spatula, MSB1011318, P34**

**Lab Sample ID: 320-117508-31**

Date Collected: 12/04/24 00:00

Matrix: Tissue

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.16 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 03:27	S1C	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	DL		1.16 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	822235	12/16/24 17:19	S1C	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	RA		1.16 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	822235	12/16/24 21:12	S1C	EET SAC

**Client Sample ID: NK283606, Spatula, Liver, MSB1011339, P35**

**Lab Sample ID: 320-117508-32**

Date Collected: 12/04/24 00:00

Matrix: Tissue

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.06 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 03:46	S1C	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	DL		1.06 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	822235	12/16/24 17:39	S1C	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	RA		1.06 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	822235	12/16/24 21:32	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283607, S. calyptata, Liver,  
 MSB1011310, P36**

**Lab Sample ID: 320-117508-33**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.13 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 04:06	S1C	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	DL		1.13 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	822235	12/16/24 17:58	S1C	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	RA		1.13 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	822235	12/16/24 21:51	S1C	EET SAC

**Client Sample ID: NK283608, S. calyptata, L, MSB1011324,  
 P37**

**Lab Sample ID: 320-117508-34**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.32 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 04:25	S1C	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	DL		1.32 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	822235	12/16/24 18:18	S1C	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	RA		1.32 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	822235	12/16/24 22:11	S1C	EET SAC

**Client Sample ID: NK283615, S. calyptata, L, MSB1011402,  
 P38**

**Lab Sample ID: 320-117508-35**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.06 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 04:44	S1C	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	DL		1.06 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	822235	12/16/24 18:56	S1C	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	RA		1.06 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	822235	12/16/24 22:30	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283619, S. calyptata, L, MSB1011416,  
 P39**

**Lab Sample ID: 320-117508-36**

Date Collected: 12/04/24 00:00

Matrix: Tissue

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.33 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 05:04	S1C	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	DL		1.33 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	822235	12/16/24 19:16	S1C	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	RA		1.33 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	822235	12/16/24 22:49	S1C	EET SAC

**Client Sample ID: NK283621, S. calyptata, L, MSB1011430,**

**Lab Sample ID: 320-117508-37**

P40

Date Collected: 12/04/24 00:00

Matrix: Tissue

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.31 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 05:23	S1C	EET SAC
Total/NA	Pre Prep	In-House	RA		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	RA		1.31 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	RA	1	1 mL	1 mL	822235	12/16/24 16:41	S1C	EET SAC
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.31 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		100	1 mL	1 mL	823808	12/21/24 00:52	S1C	EET SAC

**Client Sample ID: NK283622, L, S. calyptata, MSB1011451,**

**Lab Sample ID: 320-117508-38**

P41

Date Collected: 12/04/24 00:00

Matrix: Tissue

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.29 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 06:02	S1C	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	DL		1.29 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	822235	12/16/24 19:35	S1C	EET SAC

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# Lab Chronicle

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283626, S. calypeata, L, MSB1011466, P42**

**Lab Sample ID: 320-117508-39**

Date Collected: 12/04/24 00:00

Matrix: Tissue

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.42 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 06:21	S1C	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	DL		1.42 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	822235	12/16/24 19:55	S1C	EET SAC

**Client Sample ID: NK283627, S. calypeata, L, MSB1011473, P43**

**Lab Sample ID: 320-117508-40**

Date Collected: 12/04/24 00:00

Matrix: Tissue

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE			1.27 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821645	12/13/24 06:41	S1C	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820822	12/10/24 03:38	R1T	EET SAC
Total/NA	Prep	SHAKE	DL		1.27 g	10.0 mL	820824	12/10/24 03:40	ATB	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	822235	12/16/24 20:14	S1C	EET SAC

**Client Sample ID: NK283629, S. calypeata, Liver, MSB1011446, P44**

**Lab Sample ID: 320-117508-41**

Date Collected: 12/04/24 00:00

Matrix: Tissue

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE			0.80 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821394	12/11/24 20:05	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE	DL		0.80 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	821644	12/12/24 17:44	P1R	EET SAC

**Client Sample ID: NK283631, L, A. americana, MSB1011511, P45**

**Lab Sample ID: 320-117508-42**

Date Collected: 12/04/24 00:00

Matrix: Tissue

Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE			1.10 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821394	12/11/24 20:25	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE	DL		1.10 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	822235	12/17/24 00:26	S1C	EET SAC

Eurofins Sacramento

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283633, L, S. clypeata, MSB1011525, P46**

**Lab Sample ID: 320-117508-43**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE			1.12 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821394	12/11/24 20:44	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE	DL		1.12 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	821644	12/12/24 18:04	P1R	EET SAC

**Client Sample ID: NK283641, L, S. clypeata, MSB1011577, P47**

**Lab Sample ID: 320-117508-44**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE			1.11 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821394	12/11/24 21:04	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE	DL		1.11 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	821644	12/12/24 18:23	P1R	EET SAC

**Client Sample ID: NK283644, S. clypeata, Liver, MSB1011744,**

**Lab Sample ID: 320-117508-45**

**P48**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE			1.15 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821394	12/11/24 21:23	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE	DL		1.15 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	821644	12/12/24 18:43	P1R	EET SAC

**Client Sample ID: NK283669, S. clypeata, Liver, MSB1011800,**

**Lab Sample ID: 320-117508-46**

**P49**

**Matrix: Tissue**

Date Collected: 12/04/24 00:00  
 Date Received: 12/05/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE			1.13 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821394	12/11/24 21:42	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE	DL		1.13 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	821644	12/12/24 19:02	P1R	EET SAC

Eurofins Sacramento

# Lab Chronicle

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

**Client Sample ID: NK283674, S. clypeata, Liver, MSB1011812,  
 P50**

**Lab Sample ID: 320-117508-47**

**Date Collected: 12/04/24 00:00**  
**Date Received: 12/05/24 09:35**

**Matrix: Tissue**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Pre Prep	In-House			1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE			1.17 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS		1	1 mL	1 mL	821394	12/11/24 22:02	P1R	EET SAC
Total/NA	Pre Prep	In-House	DL		1.0 g	1.0 g	820939	12/10/24 11:38	MKC	EET SAC
Total/NA	Prep	SHAKE	DL		1.17 g	10.0 mL	820977	12/10/24 13:20	MKC	EET SAC
Total/NA	Analysis	B/L/T PFAS	DL	100	1 mL	1 mL	821644	12/12/24 19:21	P1R	EET SAC

**Laboratory References:**

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

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Eurofins Sacramento

# Accreditation/Certification Summary

Client: University of New Mexico

Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

## Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468	01-20-27
Arizona	State	AZ0708	08-11-25
Arkansas DEQ	State	88-0691	05-18-25
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-25
Florida	NELAP	E87570	06-30-25
Georgia	State	4040	01-29-25
Hawaii	State	Eurofins Sacramento	01-29-25
Illinois	NELAP	200060	03-31-25
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-25
Louisiana (All)	NELAP	01944	06-30-25
Maine	State	CA00004	04-14-26
Michigan	State	9947	01-29-25
Minnesota	NELAP	2749448	12-31-25
Nevada	State	CA00044	07-31-25
New Hampshire	NELAP	2997	04-19-25
New Jersey	NELAP	CA005	06-30-25
New York	NELAP	11666	04-01-25
Ohio	State	41252	01-29-25
Oregon	NELAP	4040	01-29-25
Texas	NELAP	T104704399-23-17	05-31-25
US Fish & Wildlife	US Federal Programs	A22139	04-30-25
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-25
Virginia	NELAP	460278	03-14-25
Washington	State	C581	05-05-25
West Virginia (DW)	State	9930C	01-31-25
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Sacramento

## Method Summary

Client: University of New Mexico  
Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

Method	Method Description	Protocol	Laboratory
B/L/T PFAS	Branched, Linear and Total PFAS	EPA	EET SAC
In-House	Tissue Preparation/Homgenization	NOAA	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

### Protocol References:

EPA = US Environmental Protection Agency

NOAA = National Marine Fisheries Service, National Oceanic And Atmospheric Administration, Seattle, WA, November 1988

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

### Laboratory References:

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

# Sample Summary

Client: University of New Mexico  
 Project/Site: UNM\_PFAS in Tissue, Holloman

Job ID: 320-117508-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-117508-1	NK14474, MSB18488, Pool1, P1	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-2	NK9098, Liver, P2	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-3	NK2445, Liver, AFP7B, P3	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-4	NK2444, Liver, AFP7A, P4	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-5	NK35660, MSB29117, P5	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-6	NK35661, MSB29140, P6	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-7	NK35655, MSB29134, P7	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-8	NK35811, MSB30651, P8	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-9	NK35643, MSB29100, P9	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-10	NK170946, P10	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-11	NK100328, Liver, AEPIR, P11	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-12	NK165232, MSB26431, P12	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-13	NK35676, MSB29118, P14	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-14	NK35678, MSB29131, P15	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-15	NK35669, MSB29093, P16	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-16	NK35935, MSB39605, P17	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-17	NK35958, MSB40165, P18	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-18	NK35816, MSB30670, P19	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-19	NK35804, MSB30716, P20	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-20	NK35876, MSB39746, P22	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-21	NK35910, MSB39349, P23	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-22	NK35817, MSB30650, P24	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-23	Pool 25, Duck PFAS, P25	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-24	NK282630, MSB50169, P26	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-25	NK276851, MSB46239, P28	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-26	NK282547, MSB49842, P29	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-27	NK276660, MSB45963, P30	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-28	NK282696, MSB50223, P31	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-29	NK283601, Spat. Cly, Liver, ABJ34298, MSB1011285, P32	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-30	NK283602, JLW125, S. Calypteata, L, MSB1011279, P33	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-31	NK283605, Liver, Spatula, MSB1011318, P34	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-32	NK283606, Spatula, Liver, MSB1011339, P35	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-33	NK283607, S. calypteata, Liver, MSB1011310, P36	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-34	NK283608, S. calypteata, L, MSB1011324, P37	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-35	NK283615, S. calypteata, L, MSB1011402, P38	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-36	NK283619, S. calypteata, L, MSB1011416, P39	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-37	NK283621, S. calypteata, L, MSB1011430, P40	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-38	NK283622, L, S. calypteata, MSB1011451, P41	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-39	NK283626, S. calypteata, L, MSB1011466, P42	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-40	NK283627, S. calypteata, L, MSB1011473, P43	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-41	NK283629, S. calypteata, Liver, MSB1011446, P44	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-42	NK283631, L, A. americana, MSB1011511, P45	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-43	NK283633, L, S. clypteata, MSB1011525, P46	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-44	NK283641, L, S. clypteata, MSB1011577, P47	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-45	NK283644, S. clypteata, Liver, MSB1011744, P48	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-46	NK283669, S. clypteata, Liver, MSB1011800, P49	Tissue	12/04/24 00:00	12/05/24 09:35
320-117508-47	NK283674, S. clypteata, Liver, MSB1011812, P50	Tissue	12/04/24 00:00	12/05/24 09:35

## **Chain of Custody Record**

eurofins

En la mar Té y  
azúcar.

Client Contact		Report To: Jean-Luc Cartron and Christopher Witt	Site Contact:	Date: 12/04/2024	COC No:					
Jean-Luc Cartron UNM jlec@unm.edu		email: jlec@unm.edu,cwitt@unm.edu	Lab Contact: Linda Laver	Carrier: FedEx	1 of 2 COCs					
Christopher Witt, UNM, cwitt@unm.edu		Analysis Turnaround Time		Job No.						
Mariel Campbell, UNM, campmc@unm.edu		Business Days (BD)								
		TAT if different from Above _____								
		<input type="checkbox"/> 2 weeks								
		<input type="checkbox"/> 1 week								
		<input type="checkbox"/> 2 days								
		<input type="checkbox"/> 1 day								
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample Enter requested analyses in these fields	320-117508 Chain of Custody		Sample Specific Notes:
NK14474, MSB18488, Pool1, P1		4-Dec-24		liver		1				Pool 1
NK9098, Liver, P2		4-Dec-24		liver		1				Pool 2
NK 2445, Liver, AFP7B, P3		4-Dec-24		liver		1				Pool 3
NK2444, Liver AFP7A, P4		4-Dec-24		liver		1				Pool 4
NK35660, MSB29117, P5		4-Dec-24		liver		1				Pool 5
NK35661, MSB29140, P6		4-Dec-24		liver		1				Pool 6
NK35655, MSB29134, P7		4-Dec-24		liver		1				Pool 7
NK35811, MSB30651, P8		4-Dec-24		liver		1				Pool 8
NK35643, MSB29100, P9		4-Dec-24		liver		1				Pool 9
NK170946, P10		4-Dec-24		liver		1				Pool 10
NK100328, Liver, AEP1R, P11		4-Dec-24		liver		1				Pool 11
NK165232, MSB26431, P12		4-Dec-24		liver		1				Pool 12
NK35676, MSB29118, P14		4-Dec-24		liver		1				Pool 14
NK35678, MSB29131, P15		4-Dec-24		liver		1				Pool 15
NK35669, MSB29093, P16		4-Dec-24		liver		1				Pool 16
NK35935, MSB39605, P17		4-Dec-24		liver		1				Pool 17
NK35958, MSB40165, P18		4-Dec-24		liver		1				Pool 18
NK35816, MSB30670, P19		4-Dec-24		liver		1				Pool 19
NK35804, MSB30716, P20		4-Dec-24		liver		1				Pool 20
NK35876, MSB39746, P22		4-Dec-24		liver		1				Pool 22
NK35910, MSB39349, P23		4-Dec-24		liver		1				Pool 23
NK35817 MSB30650, P24		4-Dec-24		liver		1				Pool 24
						1				
Preservation Used: 1= Ice, 2= HCl; 3= H <sub>2</sub> SO <sub>4</sub> ; 4= HNO <sub>3</sub> ; 5= NaOH, 6= Other		ice								
Possible Hazard Identification								Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)		
<input checked="" type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	Poison B	Unstable	<input type="checkbox"/>	<input type="checkbox"/> Return To Client	<input checked="" type="checkbox"/> Disposal By Lab	<input type="checkbox"/> Archive For	Months	
Special Instructions/QC Requirements & Comments: Page 1 of 2 for same shipment and COC. Missing Pools 13 and 21 use Pool numbers for tracking and reporting										
Relinquished by: Mariel L. Campbell		Company: Museum of SW Biology		Date/Time: 12/4/2024	Received by: <i>SJ</i>	Company: <i>EECTSAC</i>	Date/Time: <i>12/12/24 0935</i>			
Relinquished by:		Company:		Date/Time:	Received by: <i>SJ</i>	Company:	Date/Time: <i>30/12/24 0935</i>			
Relinquished by:		Company:		Date/Time:	Received by:	Company:	Date/Time:			

-12.3 °C

## Chain of Custody Record

eurofins

Entered to Lab  
System

Client Contact	Report To: Jean-Luc Cartron and Christopher Witt	Site Contact:	Date: 12/04/2024	COC No:	
Jean-Luc Cartron UNM jlec@unm.edu	email: jlec@unm.edu,cwitt@unm.edu	Lab Contact: Linda Laver	Carrier: FedEx	2 of 2 COCs	
Christopher Witt, UNM cwitt@unm.edu					
Mariel Campbell, UNM, campmjc@unm.edu					
Analysis Turnaround Time					
Business Days (BD)					
TAT if different from Above _____					
<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day					
Enter response if analysis in these fields					
Field Sampler					
Sample Specific Notes:					
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	
Pool 25, Duck PFAS, P25	4-Dec-24		liver	1	
NK282630, MSB50169 P26	4-Dec-24		liver	1	
NK276851 MSB46239 P28	4-Dec-24		liver	1	
NK282547, MSB49842, P29	4-Dec-24		liver	1	
NK276660, MSB45963, P30	4-Dec-24		liver	1	
NK282696, MSB50223, P31	4-Dec-24		liver	1	
NK283601 Spat. Cly Liver ABJ34298, MSB1011285, P32	4-Dec-24		liver	1	
NK283602, JLW125, S. Calyptea, L, MSB1011279, P33	4-Dec-24		liver	1	
NK283605, Liver, Spatula, MSB1011318, P34	4-Dec-24		liver	1	
NK283606, Spatula, Liver, MSB1011339, P35	4-Dec-24		liver	1	
NK283607, S. calyptea, Liver, MSB1011310, P36	4-Dec-24		liver	1	
NK283608, S. calyptea, L, MSB1011324, P37	4-Dec-24		liver	1	
NK283615, S. calyptea, L, MSB1011402, P38	4-Dec-24		liver	1	
NK283619, S. calyptea, L, MSB1011416, P39	4-Dec-24		liver	1	
NK283621, S. calyptea, L, MSB1011430, P40	4-Dec-24		liver	1	
NK283622, L, S. calyptea, MSB1011451 P41	4-Dec-24		liver	1	
NK283626, S. calyptea, L, MSB1011466, P42	4-Dec-24		liver	1	
NK283627, S. calyptea, L, MSB1011473, P43	4-Dec-24		liver	1	
NK283629 S. calyptea, Liver MSB1011446, P44	4-Dec-24		liver	1	
NK283631, L, A. americana, MSB1011511, P45	4-Dec-24		liver	1	
NK283633, L, S. clypeata, MSB1011525 P46	4-Dec-24		liver	1	
NK283641 L, S. clypeata, MSB1011577 P47	4-Dec-24		liver		
NK283644, S. clypeata, Liver MSB1011744, P48	4-Dec-24		liver		
NK283669 S. clypeata, Liver, MSB1011800, P49	4-Dec-24		liver		
NK283674, S. clypeata, Liver MSB1011812, P50	4-Dec-24		liver		
Preservation Used. 1=Ice, 2=HCl; 3=H <sub>2</sub> SO <sub>4</sub> ; 4=HNO <sub>3</sub> ; 5=NaOH, 6=Other ice					
Possible Hazard Identification			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab	
Special Instructions/QC Requirements & Comments. Page 2 of 2 for same shipment and COC. Missing Pool 27- use Pool numbers for tracking and reporting					
Relinquished by: Mariel L. Campbell	Company: Museum of SW Biology	Date/Time: 12/4/2024	Received by: <i>S</i>	Company: <i>SETSC</i>	Date/Time: <i>12/19/24 0935</i>
Relinquished by	Company	Date/Time:	Received by: <i>S</i>	Company	Date/Time: <i>12/19/24</i>
Relinquished by	Company	Date/Time:	Received by	Company	Date/Time:

~ 12.3°C



## Environment Testing

Loc: 320

117508

Sacramento Sample  
Receiving Notes (SSRN)Tracking # 7704 9866 6565

Job \_\_\_\_\_

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
GSL / OnTrac / Goldstreak / USPS / Other \_\_\_\_\_

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations  
File in the job folder with the COC

Therm ID: <u>604</u> Corr Factor (+/-) <u>N/A</u> °C Ice <u>  </u> Wet <u>  </u> Gel <u>  </u> Other <u>Dry ice</u>	Notes: <u>Sample #45 and</u> <u>POC do not match:</u> <u>COC: NK783644</u> <u>cont: NK783644</u>
Cooler Custody Seal <u>  </u>	
Cooler ID <u>  </u>	
Temp Observed <u>-12.3</u> °C Corrected <u>-12.3</u> °C From Temp Blank <input type="checkbox"/> Sandwich <input checked="" type="checkbox"/> Sidewall <input type="checkbox"/>	
<b>Opening/Processing The Shipment</b> Cooler compromised/tampered with? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Cooler Temperature is acceptable? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Frozen samples show signs of thaw? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Initials <u>SG</u> Date <u>12/17/24</u> <u>SG 12/17/24</u>	<u>SO 12/17/24</u>
<b>Unpacking/Labeling The Samples</b> Containers are not broken or leaking? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Samples compromised/tampered with? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> COC is complete w/o discrepancies <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sample custody seal? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Sample containers have legible labels? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sample date/times are provided? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Appropriate containers are used? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sample bottles are completely filled? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sample preservatives verified? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Is the Field Sampler's name on COC? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Samples w/o discrepancies? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Zero headspace?* <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Alkalinity has no headspace? <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Perchlorate has headspace? (Methods 314, 331, 6850) <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Multiphasic samples are not present? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Trizma Lot #(s)  Ammonium Acetate Lot #(s)
<small>*Containers requiring zero headspace have no headspace, or bubble &lt; 6 mm (1/4")</small>	<b>Login Completion</b> Receipt Temperature on COC? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> NCM Filed? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Samples received within hold time? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Log Release checked in TALS? <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Initials: <u>DM</u> Date: <u>12/05/24</u>	Initials <u>DM</u> Date <u>12/05/24</u>

# Appendix B

## Necropsy Results

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**New Mexico Department of Agriculture****Veterinary Diagnostic Services**

1101 Camino de Salud, NE  
Albuquerque, New Mexico 87102  
(505) 383-9299 phone  
(505) 383-9294 fax

**Case #:** 24-20096

Owner: UNM Museum of Southwestern Bio

ID: NK284442

Species: Killdeer

Breed: Killdeer

DR. JEAN-LUC E. CARTRON  
Geologic Associates, Inc.  
6020 Academy Road NE, Suite  
ALBUQUERQUE, NM 87109

**Received:** 07/11/24**Reported:** 08/13/24**Final Report****NECROPSY**

The carcass presented for postmortem examination was an adult, 76 grams, male, *Charadrius vociferus* (killdeer) identified as "NK284442". The bird was in good body condition with minimal postmortem decomposition. The liver mass was 2.02 grams. The combined kidney mass was 0.75 grams. The testicles were 0.06 centimeters x 0.04 centimeters. There were no significant lesions in the trachea, esophagus, lungs, airsacs, heart, liver, spleen, proventriculus, ventriculus, small intestine, large intestine, pancreas, testicles, kidneys, skeletal muscle, or brain.

**HISTOPATHOLOGY**

There are rare perivascular infiltrates of small numbers of lymphocytes and plasma cells in the lung.

There are small numbers of perivascular infiltrates of small numbers of lymphocytes, plasma cells, and macrophages in the portal areas of the liver.

The lumen of the proventriculus contains two small degenerate helminths.

There are no significant microscopic lesions in the trachea, esophagus, thyroid tissue, heart, skeletal muscle, spleen, kidneys, ventriculus, small intestine, large intestine, pancreas, adrenal glands, testicles, or brain.

**FINAL COMMENTS**

The changes in the organs (mild perivascular inflammation in the lung and liver and endoparasitism in the proventriculus) are background lesions and likely of no clinical significance. There is no evidence of an infectious disease, neoplasia, or toxicosis.

**CASE DIAGNOSIS**

ENDOPARASITISM

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**

**End of Report**

**New Mexico Department of Agriculture****Veterinary Diagnostic Services**

1101 Camino de Salud, NE  
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**Case #:** 24-20097Owner: UNM Museum of Southwestern Bio  
ID: NK284443Species:  
Breed:

DR. JEAN-LUC E. CARTRON  
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ALBUQUERQUE, NM 87109

**Received:** 07/11/24  
**Reported:** 08/13/24  
**Final Report**

**NECROPSY**

The carcass presented for postmortem examination was an adult, 322 grams, male, *Recurvirostra americana* (American avocet) identified as "NK284443". The bird was in good body condition with minimal postmortem decomposition. The bird had been gunshot. The liver mass was 9.12 grams. The combined kidney mass was 2.9 grams. The testicles were 0.07 centimeters x 0.03 centimeters. The lumen of the small intestine contained at least one adult cestode (tapeworm). There were no significant lesions in the trachea, esophagus, lungs, airsacs, heart, liver, spleen, proventriculus, ventriculus, large intestine, pancreas, testicles, kidneys, skeletal muscle, or brain.

**HISTOPATHOLOGY**

The portal areas of the liver contain small numbers of lymphocytes and plasma cells.

The myofibers of the heart contain moderate amounts of perinuclear golden-brown pigment consistent with lipofuscin in the cytoplasm. There are rare perivasculär infiltrates of small numbers of lymphocytes in the myocardium.

There are small numbers of myofibers in the skeletal muscle that contain small amounts of perimembrane golden-brown pigment consistent with lipofuscin in the cytoplasm. There are rare perivasculär infiltrates of small numbers of lymphocytes.

The interstitium of the testicles contain infiltrates of moderate numbers of lymphocytes with lesser numbers of plasma cells and macrophages. The lymphocytes often extend into the seminiferous tubules where there is degeneration and necrosis of the spermatogenic epithelium and Sertoli cells and almost a complete absence of spermatozoa production.

The lumen of the small intestine contains an adult cestode (tapeworm). The lamina propria of the mucosal epithelium of the large intestine contains numerous lymphocytes, eosinophils, and lesser numbers of plasma cells. The mesentery contains perivasculär infiltrates of moderate numbers of lymphocytes and plasma cells.

There are perivasculär infiltrates of moderate numbers of lymphocytes and plasma cells on the serosa of the proventriculus.

There are perivasculär infiltrates of moderate numbers of lymphocytes and plasma cells in the fat adjacent to the spleen.

The mucosal epithelium and submucosa of the ventriculus contain multiple eosinophilic granulomas characterized by a brightly eosinophilic center of necrotic debris surrounded by macrophages, multinucleated giant cells, eosinophils and small numbers of lymphocytes. One eosinophilic granuloma contains a degenerate nematode. There are large numbers of eosinophils in the lamina propria of the ventriculus. There are rare tangential segments of larval rhabditiform nematodes in the mucosal epithelium of the ventriculus one of which is associated with a large brightly eosinophilic focus of necrosis. The kolin layer contains small numbers of degenerate nematodes.

There are no significant microscopic lesions in the lung, trachea, esophagus, thymus, spleen, kidneys, large intestine, pancreas, adrenal glands, or brain.

**FINAL COMMENTS**

Most of the lesions in this bird are inflammatory lesions associated with endoparasitism in the small intestine and ventriculus. The inflammation in the mesentery, fat adjacent to the spleen, and in the liver are likely in response to endoparasitism. The bird has lipofuscin in the heart and skeletal muscle. Lipofuscin is considered a "wear-and-tear" pigment that accumulates as an animal ages. It is most commonly seen microscopically in older animals.

The bird also has moderate to severe lymphocytic orchitis (inflammation of the testicles) the cause of which could not be determined. There is degeneration and necrosis of the spermatogenic epithelium and Sertoli cells with almost complete absence of spermatozoa production associated with the orchitis. The orchitis is likely a sporadic event that only occurred in this bird.

**CASE DIAGNOSIS**

ENDOPARASITISM

ORCHITIS

John Ragsdale , DVM, PhD  
Diplomate, ACVP

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**  
**End of Report**

**New Mexico Department of Agriculture**  
**Veterinary Diagnostic Services**  
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**Case #:** 24-20098  
**Owner:** UNM Museum of Southwestern Bio  
**ID:** NK204441  
**Species:** Red-winged Blackbird  
**Breed:** Red-winged Blackbird

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**Received:** 07/11/24  
**Reported:** 08/13/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 37 grams, female, *Agelaius phoeniceus* (red-winged blackbird) identified as "NK284441". The bird was in good body condition with minimal postmortem decomposition. The liver mass was 1.33 grams. The combined kidney mass was 0.41 grams. The ovary was 0.06 centimeters x 0.04 centimeters with the largest ovum having a diameter of 0.015 centimeters. There were no significant lesions in the trachea, esophagus, lungs, airsacs, heart, liver, spleen, proventriculus, ventriculus, small intestine, large intestine, pancreas, testicles, kidneys, skeletal muscle, or brain.

## HISTOPATHOLOGY

There are no significant microscopic lesions in the lung, trachea, esophagus, thyroid tissue, heart, liver, spleen, proventriculus, ventriculus, small intestine, large intestine, pancreas, ovary, oviduct, kidney, adrenal glands, skeletal muscle, or brain.

## FINAL COMMENTS

There was no evidence of infectious disease, neoplasia, parasitism, or toxicosis.

## CASE DIAGNOSIS

### NORMAL TISSUE

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**  
**End of Report**

**New Mexico Department of Agriculture**  
**Veterinary Diagnostic Services**  
1101 Camino de Salud, NE  
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**Case #:** 24-20099  
**Owner:** UNM Museum of Southwestern Bio  
**ID:** NK284445  
**Species:** Red-winged Blackbird  
**Breed:** Red-winged Blackbird

DR. JEAN-LUC E. CARTRON  
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**Received:** 07/11/24  
**Reported:** 08/13/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 38 grams, female, *Agelaius phoeniceus* (red-winged blackbird) identified as "NK284445". The bird was in good body condition with minimal postmortem decomposition. The liver mass was 1.16 grams. The combined kidney mass was 0.51 grams. The ovary was 0.12 centimeters x 0.04 centimeters with largest ovum having a diameter of 0.015 centimeters. There were no significant lesions in the trachea, esophagus, lungs, airsacs, heart, liver, spleen, proventriculus, ventriculus, small intestine, large intestine, pancreas, testicles, kidneys, skeletal muscle, or brain.

## HISTOPATHOLOGY

There are no significant microscopic lesions in the lung, trachea, esophagus, heart, liver, spleen, kidneys, adrenal glands, proventriculus, ventriculus, small intestine, large intestine, pancreas, ovary, oviduct, skeletal muscle, or brain.

## FINAL COMMENTS

There is no evidence of an infectious disease, neoplasia, parasitism, or toxicosis.

## CASE DIAGNOSIS

NORMAL TISSUE

---

John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**  
**End of Report**

**New Mexico Department of Agriculture**  
**Veterinary Diagnostic Services**  
1101 Camino de Salud, NE  
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**Case #:** 24-20100  
**Owner:** UNM Museum of Southwestern Bio  
**ID:** NK204447  
**Species:**  
**Breed:**

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**Received:** 07/11/24  
**Reported:** 08/13/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 31 grams, female, *Tyrannus verticalis* (western kingbird) identified as "NK284447". The bird was in good body condition with minimal postmortem decomposition. The liver mass was 0.92 grams. The combined kidney mass was 0.45 grams. The ovary was 0.08 centimeters x 0.04 centimeters with the largest ovum having a diameter of 0.05 centimeters. There was an approximately 5 cm long thin white nematode in the right abdominal air sac. There were no significant lesions in the trachea, esophagus, lungs, heart, liver, spleen, proventriculus, ventriculus, small intestine, large intestine, pancreas, testicles, kidneys, skeletal muscle, or brain.

## HISTOPATHOLOGY

The portal vein adjacent to the liver contains paired adult (female and male) flukes. The flukes are surrounded by fibrin and macrophages. There are small numbers of portal areas in the liver that contain flukes eggs surrounded by variable numbers of macrophages mixed with lesser numbers of lymphocytes and eosinophils. There are also small numbers of filamentous bacteria surrounded by and within the cytoplasm of macrophages in one portal area.

The lumen of the small intestine contained a cross-section of a single small nematode.

The kidneys contain small numbers of interstitial infiltrates of macrophages and lymphocytes that widely separate the tubules.

There are no significant microscopic lesions in the trachea, esophagus, lungs, heart, spleen, ovary, oviduct, proventriculus, ventriculus, large intestine, pancreas, skeletal muscle, or brain.

## FINAL COMMENTS

The bird had an air sac nematode, nematodes in the small intestine (endoparasitism), and flukes within the portal vein (avian schistosomiasis). The mild lymphohistiocytic interstitial nephritis could have been the result of parasite migration through a kidney. There was no evidence of an infectious disease, neoplasia, or toxicosis.

## CASE DIAGNOSIS

NEPHRITIS - INTERSTITIAL  
PARASITISM - HELMINTH

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

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**New Mexico Department of Agriculture****Veterinary Diagnostic Services**

1101 Camino de Salud, NE  
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**Case #:** 24-20101

Owner: UNM Museum of Southwestern Bio

ID: NK284451

Species: Bird NOS

Breed: Bird NOS

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**Received:** 07/11/24**Reported:** 08/13/24**Final Report****NECROPSY**

The carcass presented for postmortem examination was an adult, 10 grams, male, *Geothlypis trichas* (common yellowthroat) identified as "NK284451". The bird was in good body condition with minimal postmortem decomposition. The liver mass was 0.27 grams. The combined kidney mass was 0.08 grams. The testicles were 0.09 centimeters x 0.06 centimeters. The pectoral muscles contained numerous approximately 0.4 cm x 0.1 cm white oblong foci with smaller numbers of similar foci in skeletal muscle throughout the body. There were no significant lesions in the trachea, esophagus, lungs, airsacs, heart, liver, spleen, proventriculus, ventriculus, small intestine, large intestine, pancreas, testicles, kidneys, or brain.

**HISTOPATHOLOGY**

The skeletal muscle contains multiple large ovoid protozoal cysts that measure up to 5,116 um x 1,387 um within an individual myofiber. The cysts contained numerous approximately 10 um long bradyzoites.

The dorsal aspect of a cerebral hemisphere has a small focus of perivascular to diffuse infiltrates of small numbers of microglia, lymphocytes, and rare hemosiderin-laden macrophages.

There are no significant microscopic lesions in the trachea, esophagus, lung, heart, liver, proventriculus, ventriculus, small intestine, large intestine, pancreas, kidneys, adrenal gland, or testicles.

**FINAL COMMENTS**

The bird had embedded *Sarcocystis* species protozoal cysts in the skeletal muscle (sarcocystosis, rice breast disease). It also had a small focus of nonsuppurative encephalitis that was likely associated with prior trauma to the area. The hemosiderin within macrophages in the focus indicates previous hemorrhage in the area. There were no other lesions to indicate an infectious disease, neoplasia, or toxicosis.

**CASE DIAGNOSIS**

SARCOCYSTIS

ENCEPHALITIS - NONSUPPURATIVE

PARASITISM - PROTOZOAN

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

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**End of Report**

**New Mexico Department of Agriculture**  
**Veterinary Diagnostic Services**  
1101 Camino de Salud, NE  
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**Case #:** 24-20102  
**Owner:** UNM Museum of Southwestern Bio  
**ID:** NK284449  
**Species:** Bird NOS  
**Breed:** Bird NOS

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**Received:** 07/11/24  
**Reported:** 08/13/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 11 grams, male, *Geothlypis trichas* (common yellowthroat) identified as "NK284449". The bird was in good body condition with minimal postmortem decomposition. The liver mass was 0.28 grams. The combined kidney mass was 0.15 grams. The testicles were 0.08 centimeters x 0.06 centimeters. There were no significant lesions in the trachea, esophagus, lungs, airsacs, heart, liver, spleen, proventriculus, ventriculus, small intestine, large intestine, pancreas, testicles, kidneys, skeletal muscle, or brain.

## HISTOPATHOLOGY

There are no significant microscopic lesions in the trachea, esophagus, thyroid tissue, lungs, heart, liver, kidneys, testicles, proventriculus, ventriculus, small intestine, large intestine, pancreas, skeletal muscle, or brain.

## FINAL COMMENTS

There is no evidence of an infectious disease, parasitism, neoplasia, or toxicosis.

## CASE DIAGNOSIS

NORMAL TISSUE

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

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**Case #:** 24-20103  
**Owner:** UNM Museum of Southwestern Bio  
**ID:** NK204444  
**Species:** Red-winged Blackbird  
**Breed:** Red-winged Blackbird

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**Received:** 07/11/24  
**Reported:** 08/13/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 36 grams, female, *Agelaius phoeniceus* (red-winged blackbird) identified as "NK284444". The bird was in good body condition with minimal postmortem decomposition. The liver mass was 1.10 grams. The combined kidney mass was 0.43 grams. The ovary was 0.06 centimeters x 0.04 centimeters with the largest ovum having a diameter of 0.01 centimeters. There were no significant lesions in the trachea, esophagus, lungs, airsacs, heart, liver, spleen, proventriculus, ventriculus, small intestine, large intestine, pancreas, testicles, kidneys, skeletal muscle, or brain.

## HISTOPATHOLOGY

There are no significant microscopic lesions in the trachea, esophagus, lungs, heart, liver, spleen, kidney, adrenal glands, proventriculus, ventriculus, small intestine, large intestine, pancreas, ovary, oviduct, skeletal muscle, or brain.

## FINAL COMMENTS

There is no evidence of an infectious disease, neoplasia, parasitism, or toxicosis.

## CASE DIAGNOSIS

NORMAL TISSUE

---

John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**  
**End of Report**

**New Mexico Department of Agriculture**  
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Case #: 24-20104  
Owner: UNM Museum of Southwestern Bio  
ID: NK284448  
Species:  
Breed:

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Received: 07/11/24  
Reported: 08/13/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 34 grams, male, *Tyrannus verticalis* (western kingbird) identified as "NK284448". The bird was in good body condition with minimal postmortem decomposition. The liver mass was 1.09 grams. The combined kidney mass was 0.50 grams. The testicles were 0.06 centimeters x 0.03 centimeters. There were no significant lesions in the trachea, esophagus, lungs, airsacs, heart, liver, spleen, proventriculus, ventriculus, small intestine, large intestine, pancreas, testicles, kidneys, skeletal muscle, or brain.

## HISTOPATHOLOGY

The seminiferous tubules in the right and left testicles are shrunken and separated by a relative increased amount of interstitium. The seminiferous tubules are lined by a thin layer of mostly Sertoli cells with a few spermatogenic epithelial cells. There is no spermatozoa production in the seminiferous tubules or spermatozoa in the epididymis.

The lumen of the small intestine contains an adult cestode (tapeworm).

There are no significant microscopic lesions in the trachea, esophagus, lungs, heart, liver, spleen, kidneys, proventriculus, ventriculus, large intestine, pancreas, skeletal muscle, or brain.

## FINAL COMMENTS

The bird had testicular atrophy that was most likely due to seasonal atrophy/testicular inactivity. However, comparison of the testicles of other adult male western kingbirds in mid-July would be necessary to confirm that suspicion. The bird also had an adult tapeworm in the small intestine. There was no evidence of an infectious disease, neoplasia, or toxicosis.

## CASE DIAGNOSIS

ENDOPARASITISM  
TESTICULAR ATROPHY

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John Ragsdale, DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

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**Case #:** 24-20105

Owner: UNM Museum of Southwestern Bio

ID: NK284450

Species: Bird NOS

Breed: Bird NOS

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**Received:** 07/11/24**Reported:** 08/13/24**Final Report****NECROPSY**

The carcass presented for postmortem examination was an adult, 9 grams, female, *Geothlypis trichas* (common yellowthroat) identified as "NK284450". The bird was in good body condition with minimal postmortem decomposition. The liver mass was 0.338 grams. The combined kidney mass was 0.11 grams. The ovary was 0.06 centimeters x 0.06 centimeters with the largest ovum being 0.01 centimeters in diameter. There were no significant lesions in the trachea, esophagus, lungs, airsacs, heart, liver, spleen, proventriculus, ventriculus, small intestine, large intestine, pancreas, testicles, kidneys, skeletal muscle, or brain.

**HISTOPATHOLOGY**

There are no significant microscopic lesions in the trachea, esophagus, lungs, heart, liver, kidneys, proventriculus, ventriculus, small intestine, large intestine, pancreas, skeletal muscle, or brain.

**FINAL COMMENTS**

There is no evidence of infectious disease, neoplasia, parasitism, or toxicosis.

**CASE DIAGNOSIS****NORMAL TISSUE**

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**  
**End of Report**

**New Mexico Department of Agriculture**  
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**Case #:** 24-20106  
**Owner:** UNM Museum of Southwestern Bio  
**ID:** NK284446  
**Species:** Red-winged Blackbird  
**Breed:** Red-winged Blackbird

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**Received:** 07/11/24  
**Reported:** 08/13/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 37 grams, female, *Agelaius phoeniceus* (red-winged blackbird) identified as "NK284446". The bird was in good body condition with minimal postmortem decomposition. The liver mass was 1.30 grams. The combined kidney mass was 0.44 grams. The ovary was 0.06 centimeters x 0.04 centimeters with the largest ovum have a diameter of 0.015 centimeters. There were no significant lesions in the trachea, esophagus, lungs, airsacs, heart, liver, spleen, proventriculus, ventriculus, small intestine, large intestine, pancreas, testicles, kidneys, skeletal muscle, or brain.

## HISTOPATHOLOGY

The liver contains a few portal areas that contain infiltrates of small numbers lymphocytes, macrophages and plasma cells.

There are no significant microscopic lesions in the trachea, esophagus, lungs, heart, spleen, kidneys, adrenal glands, ovary, oviduct, proventriculus, ventriculus, small intestine, large intestine, pancreas, skeletal muscle, or brain.

## FINAL COMMENTS

The bird had very mild inflammation in the portal areas of the liver. This is common in many species, including domestic species, and is not clinically significant. There is no evidence of infectious disease, parasitism, neoplasia, or toxicosis.

## CASE DIAGNOSIS

INFLAMMATION

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

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**End of Report**

**New Mexico Department of Agriculture****Veterinary Diagnostic Services**

1101 Camino de Salud, NE  
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**Case #:** 24-15155Owner: UNM MUSEUM OF SOUTHWESTERN BIO  
ID: NK311130Species:  
Breed:

DR. JEAN-LUC E. CARTRON  
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**Received:** 05/16/24  
**Reported:** 06/20/24  
**Final Report**

**CASE HISTORY**

Specimen collected at Holloman Lake in Otero County, New Mexico. High exposure to PFAS very likely based on recent published research. Goal of necropsy is to document pathology related to PFAS at the organ and tissue levels. Specimens should be returned to UNM MSB and 1g of muscle tissue needed for PFAS screening.

**NECROPSY**

This is the body of a 44 g, adult, male, *Dipodomys merriami*, with minimal autolysis (necropsy performed within hours of death). The liver weighs 1.5 g, and the kidneys both weigh 0.5 g. All organs are within normal limits grossly.

**HISTOPATHOLOGY**

1. and 2. Brain: Multiple levels of brain are examined. There are no significant findings.
3. Heart: There are no significant findings.
- Trachea: There are no significant findings.
- Esophagus: There are no significant findings.
- Thyroid: There are no significant findings.
4. Trachea: There are no significant findings
- Esophagus: There are no significant findings
- Lung: There is diffuse vascular congestion. There are multifocal to coalescing areas of mild to moderate acute hemorrhage within alveolar spaces.
5. Liver: There is diffuse vascular congestion. There is mild intracytoplasmic vacuolation of hepatocytes; vacuoles are clear and indistinct (normal for post-prandial mouse).
6. Kidney: There is diffuse vascular congestion.
- Liver: There are no new findings.
7. Pancreas: There are no significant findings.
- Spleen: There are no significant findings
- Favor urinary bladder: Portions of the mucosa appear sloughed (post-mortem change).
- Adrenal gland: There are no significant findings.
- Fat: There are no significant findings.
8. Stomach: There are no significant findings.
- Small intestine: There are no significant findings.
- Pancreas: There are no significant findings.
- Large intestine: There are no significant findings.
9. Testicle: There are no significant findings.
- Eye: There are no significant findings.
- Skin: There are no significant findings.
- Pancreas: There are no significant findings.
- Small intestine: There are no significant findings.
10. Bone marrow (femur, ribs), bone, and surrounding skeletal muscle: There are no significant findings.

**FINAL COMMENTS**

**\*\*Please see addendum below \*\***

There were no significant findings in this animal on gross necropsy or microscopic exam. The acute hemorrhage in the lungs is interpreted as agonal or perimortem trauma. *Francisella tularensis* and *Yersinia pestis* were not cultured from this animal. PFAS analysis is pending.

Note: For thoroughness, I am seeking the opinions of other pathologists on the liver and adrenals in this case. When completed, the results will be included in an addendum.

**ADDENDA COMMENTS**

Addendum 06/20/24: The slides with liver and adrenals were shared with Dr. Donna Kusewitt for a formal consult. Dr. John Ragsdale also consulted on the liver, informally. I have copied Dr. Kusewitt's complete assessment below, including her interpretations. Note:

Some of the slides also had other organs, and she commented on them, as well.

In summary, Dr. Kusewitt notes the presence of occasional, small aggregates of enlarged hepatocytes. She notes that these are called "altered foci", and are not unusual -at least in *Mus musculus* – and can increase with age and exposure to some carcinogens. She thinks the liver vacuolation is within normal limits for a non-fasted mouse. Dr. Ragsdale thought that, while the liver vacuolation could be within normal limits for a post-prandial mouse, and he wouldn't call it a toxic hepatopathy, he can't rule out the vacuolation isn't due to a xenobiotic.

Overall, while the "altered foci" described above may just be a non-specific, age related change, and we cannot attribute them to PFAS with the information we have, this may be a change worth exploring in future animals.

PFAS analysis is pending for this animal.

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#### **Dr. Kusewitt's assessment:**

Case Number: V24 15155 (Slides 5 and 7)

Animal Number: NK 311130

Species: *Dipodomys merriami*

Sex: Male

Organ: Liver

Post mortem condition: Good

Observations: Hepatic lobules are not as well-defined as in some other rodent species. There is moderate, diffuse vacuolation of hepatocytes; vacuoles are ragged. This vacuolar change is interpreted as glycogen accumulation. There is mild variation in the size of hepatocyte nuclei and small numbers of binucleate hepatocytes are present. At a few sites on the surface of the liver there are small poorly defined aggregates of enlarged hepatocytes. There is a single small focus of lymphocytes adjacent to a central vein. There is no evidence of neoplasia or infectious disease.

Organ: Pancreas

Post mortem condition: Good

Observations: Acini and islets are easily identified. There is no evidence of neoplasia or inflammation.

Organ: Spleen

Post mortem condition: Good

Observations: The spleen is somewhat contracted, as evidenced by pleating of the organ capsule. Multiple lymphoid follicles are present; active germinal centers are not seen. In the centers of many follicles there are small aggregates of amorphous eosinophilic material interpreted as amyloid. Little evidence of extramedullary hematopoiesis is seen. There is no evidence of neoplasia or inflammation.

Organ: Urinary bladder

Post mortem condition: Moderate autolysis

Observations: The bladder is distended. No calculi are seen within the bladder and there is no evidence of neoplasia or inflammation.

Organ: Adrenals

Post mortem condition: Good

Observations: The adrenal surfaces are smooth. All layers of the cortices are present and symmetrical. The medullae are unexceptional. A muscular artery and ganglion adjacent to one adrenal are normal in appearance. There is no evidence of neoplasia or inflammation.

**Interpretation:** Liver vacuolation is within normal limits for an animal that is not fasting. Variation in the size of liver nuclei and the presence of binucleate hepatocytes are typical of rodents. The presence of lymphocytes adjacent to a blood vessel is considered an incidental finding. Foci of enlarged hepatocytes are called "altered foci" and are not an unusual finding at least in *Mus musculus*, and increase in number with age and with exposure to some carcinogens.

The low level of extramedullary hematopoiesis in the red pulp of the spleen indicates that the animal was not anemic. The absence of prominent germinal follicles in the white pulp suggests the absence of any marked antigenic stimulus. Amyloid within the spleen is not an unusual finding in the spleens of some species.

Pancreas, urinary bladder, and adrenals show no evidence of pathologic processes.

Donna F. Kusewitt, DVM, PhD

Diplomate, ACVP

Veterinary Pathologist

#### **CASE DIAGNOSIS**

NO DIAGNOSIS

Confidential report intended for individual/organization addressed. Results apply to samples as received.  
End of Report

New Mexico Department of Agriculture

Veterinary Diagnostic Services  
1101 Camino de Salud, NE  
Albuquerque, New Mexico 87102  
(505) 383-9299 phone  
(505) 383-9294 fax

VDS LAB USE ONLY  
Date Received Case No.

S116124 V24 15155

Veterinarian: TERESA GARCIA  
Clinic: C300 VDS  
Address:

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Mobile: \_\_\_\_\_ Alternate: \_\_\_\_\_  
Email: \_\_\_\_\_

\_\_\_\_ Phone \_\_\_\_ Fax \_\_\_\_ Email Report

TESTS REQUESTED

- Bacteriology       Cytology  
 Bacteriology & Sensi.       Histopath . . . IHC  
 CBC/CheM Panel       Necropsy  
 \*CBC only . . . \*Chem only       Parasitology  
 \*CBC/Fibrinogen only       Mycology  
 Plague/Tularemia       Serology  
 PCR       Toxicology  
 Other \_\_\_\_\_

Date Shipped \_\_\_\_\_ VIA  
\_\_\_\_ DMC Courier \_\_\_\_ Owner \_\_\_\_ Vet \_\_\_\_ Mail

No. specimens \_\_\_\_\_ Date taken 05/16/24  
No. in herd \_\_\_\_\_ Date onset \_\_\_\_\_

\_\_\_\_ UPS \_\_\_\_ FedEx \_\_\_\_ Other \_\_\_\_\_

Sick \_\_\_\_ Dead \_\_\_\_  
Necropsy disposal method \_\_\_\_\_

Owner Name UNM Museum of Southwestern  
Biology, Mammal Division

Male \_\_\_\_ Neutered \_\_\_\_ Female \_\_\_\_ Spayed \_\_\_\_

Animal Name/ID \_\_\_\_\_

Age \_\_\_\_ yrs \_\_\_\_ mths \_\_\_\_ wks \_\_\_\_ days \_\_\_\_ fetus

Species \_\_\_\_\_ Breed \_\_\_\_\_

Agent(s) suspected \_\_\_\_\_

SPECIMEN(S) SUBMITTED

- Brain  
 Eye V24-15155  
 Heart  
 Lung  
 Trachea  
 Stomach V24-15156  
 Stomach Contents  
 Small Intestine  
 Large Intestine  
 Cecum  
 Liver V24-15157  
 Spleen  
 Kidney V24-15158  
 Urinary Bladder  
 Skin  
 EDTA Blood  
 Serum  
 Urine V24-15159  
 Carcass
- ① NK 311130 Dipodomys merriami  
② NK 311134 Peromyscus leucopus  
③ NK 311139 Peromyscus  
NK 311135 Mus musculus  
⑤ NK 311138 Peromyscus leucopus

HISTORY

specimen collected at Holloman  
Lake in Otero County, New Mexico.  
High exposure to PFAS very  
likely based on recent published  
research. Goal of pathology  
to document any pathology  
related to PFAS at the organ  
and tissue levels

Specimen should be returned to  
UNM MSB and 1g of muscle  
tissue needed for PFAS  
screening.

VDS LAB USE ONLY

Specimens received  
5 CARCASS

Referred to/Case Coordinator

VDS / TG

Received by AP

Entered by \_\_\_\_\_

NMDA/VDS Form: QS-006 (08/15)

Date: 5/16/2024

Accession: 15155

NK 311130

Animal weight: 44g

Muscle collected for PFAS: Yes

Liver weight: 1.5g

Kidney L weight: 0.5g

Kidney R weight: 0.5g

Kidney collected for microplastics: No

Gross findings: all organs within normal limits  
(gall bladder not found)

Histology:

Skin (where):

Muscle (which):

Femur (bone marrow)

Spleen

Pancreas (around spleen)

Liver

Kidney (side):

Adrenal:

Lymph nodes (mesenteric):

Bladder

GI (stomach and intestines)

Reproductive tract

Tongue

Esophagus

Thyroid, trachea (en bloc):

Lung

Heart

Brain

Salivary gland

Merriam's Kangaroo rat  
(*Dipodomys merriami*)

Male

dentition: ok

65235

**New Mexico Department of Agriculture****Veterinary Diagnostic Services**

1101 Camino de Salud, NE  
Albuquerque, New Mexico 87102  
(505) 383-9299 phone  
(505) 383-9294 fax

**Case #:** 24-15156Owner: UNM MUSEUM OF SOUTHWESTERN BIO  
ID: NK31134Species:  
Breed:

DR. JEAN-LUC E. CARTRON  
Geologic Associates, Inc.  
6020 Academy Road NE, Suite  
ALBUQUERQUE, NM 87109

**Received:** 05/16/24  
**Reported:** 06/20/24  
**Final Report**

**CASE HISTORY**

Specimen collected at Holloman Lake in Otero County, New Mexico. High exposure to PFAS very likely based on recent published research. Goal of necropsy is to document pathology related to PFAS at the organ and tissue levels. Specimens should be returned to UNM MSB and 1g of muscle tissue needed for PFAS screening.

**NECROPSY**

This is the body of a 19 g, adult, male, *Peromyscus leucopus*. The liver weighs between 1 g and 1.5 g. The kidneys both weigh less than 0.5 g. There are no significant gross findings.

**HISTOPATHOLOGY**

1. Brain: There are no significant findings.
2. Tongue: In the skeletal muscle, there is a foreign material (plant matter) surrounded by a focal aggregate of macrophages, polymorphonuclear cells, with occasional multinucleated cells, lymphocytes, and plasma cells. There are occasional intracytoplasmic protozoal cysts (sarcocysts), with no associated inflammation.
- Esophagus: In the submucosa, there is foreign material (plant matter) surrounded by a focal aggregate of macrophages, polymorphonuclear cells, with occasional multinucleated cells.
- Thyroid: There are no significant findings.
- Trachea: There is hemorrhage in the lumen, with no lesions in the mucosa or surrounding tissue (agonal or from the lungs).
- Fat: There are no significant findings.
- Heart: There are no significant findings.
- Lungs: There is diffuse congestion and variable atelectasis.
- Salivary gland: There are no significant findings.
3. Lungs: There are changes as described above. In addition, there are occasional areas of mild hemorrhage in the alveolar spaces. There are occasional interstitial aggregates of macrophages, polymorphonuclear cells, lymphocytes and plasma cells.
- Heart: There are no significant findings.
- Esophagus: There are no significant findings.
4. Liver: There is diffuse vascular congestion. There are occasional granulomas within the parenchyma, and one has an intralesional fluke. There are occasional pigment granulomas.
5. Kidney: There are rare aggregates of lymphocytes in the renal pelvis.
- Liver: There are no new findings.
6. Pancreas: There are no significant findings.
- Liver: There are no new findings.
- Adrenal gland: There are no significant findings.
- Spleen: Lymphoid follicles in the white pulp are expanded, and occasionally coalesce. There are mixed small mature lymphocytes, lymphoblasts, and macrophages, in these areas.
- Bone marrow: There are no significant findings.
7. Stomach: There are no significant findings.
- Pancreas: There are no significant findings.
- Lymphoid tissue: Adjacent to the pancreas, is lymphoid tissue with germinal centers and sheets of plasma cells, lymphocytes, and macrophages.
- Small intestine: There is moderate to severe autolysis of the mucosa. There are no overt significant findings.
8. Skin: There are occasional sarcocysts within underlying skeletal muscle.
- Eye: There are no significant findings.
9. Testicle: There are no significant findings.
- Urinary bladder: There are no significant findings.
10. Bone marrow, bone, and surrounding skeletal muscle: There are occasional sarcocysts within the skeletal muscle. There are no other significant findings.

**FINAL COMMENTS**

**\*\*Please note addendum below\*\***

There are multiple inflammatory changes in this mouse, attributable to either foreign material (tongue and esophagus), parasites (liver), or other causes (lung). The inflammation in the lung is chronic and mild, and although the exact cause was not seen

histologically, I suspect it may be parasitic, or potentially environmental irritation (eg inorganic dust), but the exact cause is unknown. The mild hemorrhage is interpreted as agonal or perimortem trauma. The cause of the lymphoid hyperplasia in the spleen is not clear, but is likely due to chronic antigenic stimulus.

Regarding PFAS – While the exact cause of the inflammation in the lungs and hyperplasia in the spleen is not clear, I lean towards them not being related to PFAS. The changes documented in the peer-reviewed literature in the spleen are of atrophy, not hypertrophy of lymphoid cells.

*Francisella tularensis* and *Yersinia pestis* were not cultured from this animal. PFAS analysis is pending.

Note: For thoroughness, I am seeking the opinions of other pathologists in this case. When completed, the results will be included in an addendum.

Guo, H. (2021) Perfluorooctanoic acid (PFOA) exposure induces splenic atrophy via overactivation of macrophages in male mice, Journal of Hazardous Materials, Volume 407, 2021

## **Diagnoses**

Tongue: Focal granulomatous glossitis with intralesional foreign material (plant material)

Liver: Mild to moderate, granulomatous hepatitis with intralesional trematodes

Spleen: Lymphofollicular hyperplasia

Lung: 1) Mild, chronic, interstitial pneumonia; 2) Mild acute hemorrhage (perimortem change)

Esophagus: Focal granulomatous esophagitis with intralesional foreign material (plant material)

## **ADDENDA COMMENTS**

Addendum 06/20/24: The slides with liver and adrenals were shared with Dr. Donna Kusewitt for a formal consult. Dr. John Ragsdale also assessed a few of the slides, informally. I have copied Dr. Kusewitt's complete assessment below, including her interpretations.

Note: Some of the slides also had other organs, and she commented on them, as well.

I note that in the cuts of tissue present on her slides, the liver flukes were not present – I saw them in the original slides, and Dr. Ragsdale agreed with this interpretation. Thus, the inflammation in the liver is interpreted as secondary to these parasites. He also noted a cestode within a lymph node adjacent to the pancreas.

PFAS analysis is pending for this animal.

## **Dr. Kusewitt's assessment:**

Case Number: V24-15156 (Slides 4 and 6)

Animal Number: NK311134

Species: *Peromyscus leucopus*

Sex: Male

Organ: Liver

Post mortem condition: Good

Observations: Hepatic lobules are clearly defined. Most hepatocytes contain few vacuoles, although around some central veins there are small numbers of hepatocytes with clear vacuoles in the cytoplasm. These vacuoles are interpreted as fat droplets. Many hepatocytes throughout the hepatic lobules contain small amounts of finely granular brown pigment interpreted as bile. There is moderate variation in the size of hepatocyte nuclei and small numbers of binucleate hepatocytes are present. The hepatic parenchyma contains two granulomas of moderate size. Each granuloma is characterized by a central aggregate of macrophages, some of which have multiple nuclei, surrounded by a rim of lymphoid cells. No microorganisms are evident within granulomas. In one granuloma, many macrophages contain bile pigment. Small aggregates of lymphoid cells lie adjacent to a few bile ducts and one blood vessel. There is no evidence of neoplasia.

Organ: Spleen

Post mortem condition: Good

Observations: The spleen contains multiple lymphoid follicles, many of which have prominent germinal centers. The red pulp contains numerous cells of the erythropoietic series. There is no evidence of neoplasia.

Organ: Pancreas

Post mortem condition: Mild autolysis

Observations: Acini and islets are readily distinguished. There is no evidence of inflammation or neoplasia.

Organ: Adrenal

Post mortem condition: Good

Observations: The adrenal surface is smooth. All layers of the cortex are present and symmetrical. The medulla is unexceptional. There is no evidence of neoplasia or inflammation.

Organ: Bone marrow

Post mortem condition: Good

**Observations:** A small sample of bone marrow is present. The marrow is highly cellular and contains cells of all hematopoietic series. There is no evidence of neoplasia.

**Interpretation:** Liver vacuolation in rodents is highly variable, depending on the feeding status. In the present case, the extent and pattern of vacuolation are within normal limits. Variation in the size of liver nuclei and the presence of binucleate hepatocytes are typical of rodents. The liver granulomas do not appear to be associated with an infectious organism; their etiology is unclear. The cause of the bile droplet accumulation within hepatocytes is not apparent. The presence of lymphocytes adjacent to a few bile ducts and a blood vessel is considered an incidental finding.

The presence of prominent germinal centers in splenic white pulp suggests antigenic stimulation. Marked erythropoiesis in the splenic red pulp is consistent with response to anemia.

Pancreas, adrenal, and bone marrow show no evidence of pathologic processes.

Donna F. Kusewitt, DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

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Teresa Garcia , DVM  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**  
**End of Report**

NEW MEXICO DEPARTMENT OF AGRICULTURE  
VETERINARY DIAGNOSTIC SERVICES  
PATHOLOGY TEST REQUEST FORM

V24  
15156

Case #

\*\* Return form to Receiving staff following procedure(s). \*\*

- No Tests Required
  - Add Insurance/Forensic Charge
  - SLD Rabies case only
- Decap performed: \_\_\_\_\_  
(initials/date)

Submitter: GARCIA  
Owner: VNM  
Animal ID(s): NK311134

Date Received: 5/16/18  
Pathologist: TG

**Histopathology**

NOTES:

- Various Tissues
- Single Tissue Source: \_\_\_\_\_

**Bacteriology**

Pooled Cases  No  Yes Case #s Pooled

\* Additional specific testing

Source(s) <u>Lung, liver, spleen</u>	Pooled <input checked="" type="checkbox"/>	Specific Requests * <u>Streptococcus</u>	Anaerobic <input type="checkbox"/>	Sensi <input type="checkbox"/>
Source(s) _____	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>

**Molecular Biology**

Pooled Cases  No  Yes Case #s Pooled

\* Specify test method

* Test <u>Hog, liver, spleen</u>	Pooled <input type="checkbox"/>	Referral Lab _____	Date Routed _____	Courier _____	Initials _____
Source(s) _____	<input type="checkbox"/>	_____	_____	_____	_____
* Test _____	Pooled <input type="checkbox"/>	Referral Lab _____	Date Routed _____	Courier _____	Initials _____
Source(s) _____	<input type="checkbox"/>	_____	_____	_____	_____
* Test _____	Pooled <input type="checkbox"/>	Referral Lab _____	Date Routed _____	Courier _____	Initials _____
Source(s) _____	<input type="checkbox"/>	_____	_____	_____	_____

**Virology / Other**

Pooled Cases  No  Yes Case #s Pooled

\* Specify test method

* Test <u>PRSS</u>	Pooled <input type="checkbox"/>	Referral Lab _____	Date Routed _____	Courier _____	Initials _____
Source(s) <u>sheathed muscle</u>	<input type="checkbox"/>	_____	_____	_____	_____
* Test _____	Pooled <input type="checkbox"/>	Referral Lab _____	Date Routed _____	Courier _____	Initials _____
Source(s) _____	<input type="checkbox"/>	_____	_____	_____	_____
* Test _____	Pooled <input type="checkbox"/>	Referral Lab _____	Date Routed _____	Courier _____	Initials _____
Source(s) _____	<input type="checkbox"/>	_____	_____	_____	_____

**Storage of specimens**

\*Locations include: room temperature = RT, refrigerator = R, refrigerator freezer = RF, deep freeze = D, ultralow freezer = U

Date _____	Specimen(s) _____	Location* _____	Requested storage time _____
Date _____	Specimen(s) _____	Location* _____	Requested storage time _____

VDS FORM: PA-009

Form PA-009 - Pathology Test Request Form - Version 2.0, Index Form PA-009, Printed: 06-Jun-2018 16:52  
Authorised on: 06-Jun-2018, Authorised by: Kim Ethridgehill, Unique Reference: 820-71508757 See iPassport for review timelines

EB / Date: \_\_\_\_\_

Author(s): John Ragsdale, Kim Ethridgehill

Page 1 of 1

Date: 5/16/2024  
Accession: V24-15156 NK31134 *Peromyscus leucopus*

Animal weight: 19g Male

Muscle collected for PFAS: yes (femoral, tibial, pectoral) 0.5g

Liver weight: 1g - 1.5g

Kidney L weight: < 0.5g

Kidney R weight: < 0.5g

Kidney collected for microplastics: no

Gross findings: every organ within normal limits

#### Histology:

Skin (where):

Muscle (which):

Femur (bone marrow)

Spleen

Pancreas (around spleen)

Liver

Kidney (side):

Adrenal:

Lymph nodes (mesenteric):

Bladder

GI (stomach and intestines)

Reproductive tract

Tongue

Esophagus

Thyroid, trachea (en bloc):

Lung

Heart

Brain

Salivary gland

**New Mexico Department of Agriculture****Veterinary Diagnostic Services**

1101 Camino de Salud, NE  
Albuquerque, New Mexico 87102  
(505) 383-9299 phone  
(505) 383-9294 fax

**Case #:**

24-15157

**Owner:**

UNM MUSEUM OF SOUTHWESTERN BIO

**ID:**

NK311139

**Species:****Breed:**

DR. JEAN-LUC E. CARTRON  
Geologic Associates, Inc.  
6020 Academy Road NE, Suite  
ALBUQUERQUE, NM 87109

**Received:** 05/16/24**Reported:** 06/20/24**Final Report****CASE HISTORY**

Specimen collected at Holloman Lake in Otero County, New Mexico. High exposure to PFAS very likely based on recent published research. Goal of necropsy is to document pathology related to PFAS at the organ and tissue levels. Specimens should be returned to UNM MSB and 1g of muscle tissue needed for PFAS screening.

**NECROPSY**

This is the body of a 27.5 g, male, adult, *Peromyscus maniculatus*, with minimal autolysis (necropsied within hours of death). The liver weighs 1.5 g, and an enhanced reticular pattern is seen diffusely. The kidneys both weigh less than 0.5 g. The adrenal glands are symmetrical, but appear subjectively enlarged. The stomach is distended by ingested food.

**HISTOPATHOLOGY**

1. and 2. Brain: Multiple sections of brain are examined. There are no significant findings.
3. Esophagus: There are occasional intracytoplasmic protozoal cysts (sarcocysts) within skeletal muscle fibers in the wall of the esophagus, with no associated inflammation.
- Trachea: There are no significant findings.
- Thyroid: There are no significant findings.
- Brain: There are no significant findings.
- Brown fat: There are no significant findings.
- Peripheral nerve: There are no significant findings.
4. Heart: There are no significant findings.
- Lung: There are multifocal to coalescing areas of mild to moderate hemorrhage within alveolar spaces, occasionally disrupting alveolar septa; this affects approximately 15% of the pulmonary parenchyma in examined sections.
- Trachea: There are no significant findings.
- Esophagus: There are no significant findings.
5. and 6. Liver: There is diffuse vascular congestion.
7. Adrenal gland: There is diffuse hypertrophy of adrenocortical cells, with severe anisocytosis and anisokaryosis of adrenal cortical cells (zona fasciculata, potentially reticularis), and occasional multinucleation.
- Kidney: There are no significant findings.
- Spleen: There are no significant findings.
- Pancreas: There are no significant findings.
8. Testicles: There are no significant findings.
- Eye: There are no significant findings.
- Skin: There are no significant findings.
9. Small intestine: Some sections have moderate to severe autolysis of the mucosa. There are no overt significant findings.
- Large intestine: There are no overt significant findings.
- Stomach: There are no significant findings.
- Pancreas: There are no significant findings.
10. Bone marrow, bone, and surrounding skeletal muscle (femur and ribs): There are no significant findings

**FINAL COMMENTS****\*\*Please see addendum\*\***

The findings with the most potential for significance in this case are in the adrenal gland, however, the exact significance of the findings is unclear. The adrenal glands were subjectively enlarged on gross necropsy, and, on microscopic exam, in the adrenal cortex, there were changes most consistent with hypertrophy (enlarged cells), with anisocytosis (differing cell size), anisokaryosis (differing nuclear size), and there were multinucleated cells. The portion of the cortex involved is the zona fasciculata, and potentially the zona reticularis (the zona reticularis is not delineated in mice on routine histology). The zona fasciculata secretes glucocorticoids – hormones involved in the stress response.

I shared this case with Dr. John Ragsdale. As far as we are aware, these changes are not normal findings in the mouse adrenal gland. However, I note that most of what is documented in the adrenal gland is from laboratory or captive mice. I am hesitant to say that these changes are definitively abnormal in a wild *Peromyscus maniculatus* without more information (eg could this be some kind of seasonal change?) I have ordered an article via interlibrary loan that details the adrenal gland in a wild mouse of the same

genus (*Peromyscus leucopus* - Costa 1968) – results will be released in an addendum.

Again, the exact diagnosis and significance of these changes are not clear, but, using guidelines from the International Harmonization of Nomenclature and Diagnostic Criteria for Lesions in Rats and Mice, the changes are most consistent with diffuse cortical hypertrophy of the adrenal gland (Brändli-Baiocco et al. 2018). I note that the anisocytosis, anisokaryosis, and multinucleation seen in this case are not described in the context of hypertrophy in these guidelines. Diffuse adrenocortical hypertrophy is typically caused by increased ACTH – either due to stress or disease, or exogenously administered ACTH (Brändli-Baiocco et al. 2018). This guide notes that xenobiotics that inhibit steroid synthesis can cause hypertrophy, but typically they also cause increased vacuolation – I do not see overtly increased vacuolation in this case. Again, I am not sure if this is a normal change for a wild mouse of this genus and species, and hopefully the abovementioned paper will provide additional information.

Regarding potential links to PFAS - Without controlled studies detailing similar changes in mice, it is difficult to assign underlying cause to this change in the adrenal cortex. While I cannot say it is due to PFAS, at this time, I cannot rule out that it is due to PFAS. A brief literature review finds that various PFAS have been found to affect the production of glucocorticoids ( Ying Y, et al. 2024; Pereiro, N et al. 2014; Pötzl B, et al 2024 ), and while some describe the general thickening of the zona fasciculata, I did not find any studies detailing the microscopic changes seen here. Note: I have one of these articles on ILL regarding morphologic changes, but I do not expect the changes to be similar to those seen here based on the abstract. I would also want to make sure muscle sampled from this animal had elevated PFAS (elevated PFAS are expected based on environmental levels).

If you are interested, I think it would be helpful to submit the slide with the adrenal gland to a veterinary pathologist with specialization in toxicology pathology and mice– please let me know if you are interested in doing so.

Other findings:

The liver change seen grossly (enhanced reticular pattern) was microscopically found to be diffuse congestion of vessels. This is a non-specific finding that is likely incidental, and likely occurred as the animal was dying. There were no changes in the heart to suggest it was due to heart failure, or other changes in the liver suggestive of hepatic pathology.

There was hemorrhage in the lung – both John and I agree this is likely an agonal change or due to trauma at the time of death. We did not see evidence of pneumonia or other lung pathology.

*Francisella tularensis* and *Yersinia pestis* were not cultured from this mouse.

I could not find an average and standard deviation for organ values for wild *Peromyscus maniculatus*, however, there is a paper with organ masses for captive *Peromyscus maniculatus*, with average values and standard error – see below.

Please contact me with any questions or concerns.

#### References:

- Brändli-Baiocco et al. (2018) Nonproliferative and Proliferative Lesions of the Rat and Mouse Endocrine System. J Toxicol Pathol. 31(3 Suppl):1S-95S  
Costa, J.L. (1968), Histological, histochemical, and cytological observations on the adrenal gland of the wild white-footed mouse, *Peromyscus leucopus*. Anat. Rec., 162: 275-287.  
Hayssen, V. (2001) Body and organ mass in agouti and non-agouti deer mice (*Peromyscus maniculatus*), Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology, Volume 130, Issue 2 Pages 311-321  
Pereiro, N et al. (2014) Regulation of corticosterone secretion is modified by PFOS exposure at different levels of the hypothalamic–pituitary–adrenal axis in adult male rats, Toxicology Letters, Volume 230, Issue 2, 2014, Pages 252-262  
Pötzl B, et al (2024) Endocrine Disruptors: Focus on the Adrenal Cortex. Horm Metab Res. Jan;56(1):78-90.  
Ying Y, et al. (2024) Perfluorotetradecanoic acid exposure to adult male rats stimulates corticosterone biosynthesis but inhibits aldosterone production. Environmental Toxicology. 39(5): 2610-2622.

#### Diagnoses

Adrenal gland: Severe, adrenocortical hypertrophy with anisocytosis, anisokaryosis, and multinucleated cells

Lungs: Multifocal to coalescing, moderate, pulmonary hemorrhage

#### ADDENDA COMMENTS

Addendum 06/20/24: The slides with liver and adrenals were shared with Dr. Donna Kusewitt for a formal consult. Dr. John Ragsdale also assessed a few of the slides, informally. I have copied Dr. Kusewitt's complete assessment below, including her interpretations. Note: Some of the slides also had other organs, and she commented on them, as well.

Dr. Kusewitt thinks the adrenal is within normal limits, and in a personal communication told me the adrenals and male sex organs of *Peromyscus* can vary among populations, depending on living conditions, and time of year. Further, the changes in the paper referenced above note descriptions of changes in wild *Peromyscus* adrenals similar to the ones seen here. Thus, ultimately, it is most likely the changes in the adrenal are within normal variations for this genus.

PFAS analysis is pending for this animal.

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#### Dr. Kusewitt's assessment:

Case Number: V24 15157 (slides 5 and 7)

Animal Number: NK 311139

Species: *Peromyscus maniculatus*

Sex: Male

Organ: Liver

Post mortem condition: Mild autolysis

Observations: Hepatic lobules are discernible. There is very slight diffuse ragged vacuolation of hepatocyte cytoplasm interpreted as glycogen accumulation. In some centrilobular areas, hepatocytes contain clear-edged vacuoles interpreted as fat droplets. There is mild variation in the size of hepatocyte nuclei and small numbers of binucleate hepatocytes are present. Multiple portal triads contain lymphoid cells; lymphoid cells are generally few in number. There is no evidence of neoplasia.

Organ: Spleen

Post mortem condition: Good

Observations: The spleen contains multiple lymphoid follicles, some of which contain evident germinal centers. There is moderate extramedullary hematopoiesis in the red pulp; most hematopoietic cells are of the erythroid lineage. There is no evidence of neoplasia disease.

Organ: Kidney

Post mortem condition: Moderate autolysis

Observations: Glomeruli are small and uniform in size and cellularity. Tubular lumina do not contain casts or proteinaceous fluid. No aggregates of inflammatory cells or interstitial fibrosis is seen. There is no evidence of neoplasia or infectious disease.

Organ: Adrenals

Post mortem condition: Good

Observations: The surfaces of the adrenals are smooth. Multiple layers of cells are seen in the cortex, but layers are not as well-defined as in some other animals examined, and there is more variation in nuclear size than in the adrenal of some other animals. The medulla is present in only one adrenal and it is unexceptional in appearance. There is no evidence of neoplasia or infectious disease.

**Interpretation:** Liver vacuolation in rodents is highly variable, depending on the feeding status. In the present case, the extent and pattern of vacuolation is within normal limits. Variation in the size of liver nuclei and the presence of binucleate hepatocytes are typical of rodents. The presence of lymphoid cells in multiple portal triads suggests a mild triaditis, likely an incidental lesion.

Changes in the white and red pulp of the spleen are mild and likely to be within normal limits.

There is no evidence of pathologic processes in kidneys or adrenals.

---

Donna F. Kusewitt, DVM, PhD

Diplomate, ACVP

Veterinary Pathologist

---

Teresa Garcia , DVM

Diplomate, ACVP

Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**

**End of Report**

NEW MEXICO DEPARTMENT OF AGRICULTURE  
VETERINARY DIAGNOSTIC SERVICES  
PATHOLOGY TEST REQUEST FORM

V24

15157

Case #

\*\* Return form to Receiving staff following procedure(s). \*\*

- No Tests Required
- Add Insurance/Forensic Charge
- SLD Rabies case only
- Decap performed: \_\_\_\_\_  
(Initials/date)

Submitter: GARCIA  
Owner: UNM  
Animal ID(s): NK 311139

Date Received: 5/16/12  
Pathologist: TG

Histopathology

NOTES:

<input checked="" type="checkbox"/> Various Tissues	
<input type="checkbox"/> Single Tissue Source: _____	

Bacteriology

Pooled Cases  No  Yes Case #s Pooled

Source(s) Lung, liver, spleen	Pooled Specific Requests* <input checked="" type="checkbox"/> Ultramicrotomy	Anaerobic <input type="checkbox"/>	Sensi <input type="checkbox"/>
Source(s) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Molecular Biology

Pooled Cases  No  Yes Case #s Pooled

* Test _____ Source(s) _____	Pooled <input type="checkbox"/>	Referral Lab _____	Date Routed _____	Courier _____	Initials _____
* Test _____ Source(s) _____	Pooled <input type="checkbox"/>	Referral Lab _____	Date Routed _____	Courier _____	Initials _____
* Test _____ Source(s) _____	Pooled <input type="checkbox"/>	Referral Lab _____	Date Routed _____	Courier _____	Initials _____

Virology / Other

Pooled Cases  No  Yes Case #s Pooled

* Test PPBS Source(s) skeletal muscle	Pooled <input type="checkbox"/>	Referral Lab _____	Date Routed _____	Courier _____	Initials _____
* Test _____ Source(s) _____	Pooled <input type="checkbox"/>	Referral Lab _____	Date Routed _____	Courier _____	Initials _____
* Test _____ Source(s) _____	Pooled <input type="checkbox"/>	Referral Lab _____	Date Routed _____	Courier _____	Initials _____

Storage of specimens

\*Locations include: room temperature = RT, refrigerator = R, refrigerator freezer = RF, deep freeze = D, ultralow freezer = U

Date _____	Specimen(s) _____	Location* _____	Requested storage time _____
Date _____	Specimen(s) _____	Location* _____	Requested storage time _____

VDS FORM: PA-009

Form PA-009 - Pathology Test Request Form - Version: 2.0 Index Form PA-009 Printed: 06-Jun-2018 16:52

Authorised on: 06-Jun-2018 Authorised by: Kim Ethridgehill, Unique Reference: 820-71508757 See iPassport for review timelines

EB / Date: \_\_\_\_\_

Author(s): John Ragsdale, Kim Ethridgehill

Page 1 of 1

Date: 5/16/2024  
Accession: V24-15157 NK311139 Peromyscus maniculatus  
Animal weight: 27.5g male  
Muscle collected for PFAS: femoral, tibial, pedal: 1g  
Liver weight: 1.5  
Kidney L weight: < 0.5g  
Kidney R weight: < 0.5g  
Kidney collected for microplastics: no

Gross findings: enhanced reticular pattern (liver, more pronounced in the left lobe) - photo.  
Adrenal glands symmetrical but subjective larger than in other *Peromyscus* specimen (but <sup>#1 species</sup>)  
Full stomach, distended by digested food

Histology:

Skin (where):  
Muscle (which):  
Femur (bone marrow)  
Spleen  
Pancreas (around spleen)  
Liver  
Kidney (side):  
Adrenal:  
Lymph nodes (mesenteric):  
Bladder  
GI (stomach and intestines)  
Reproductive tract  
Tongue  
Esophagus  
Thyroid, trachea (en bloc):  
Lung  
Heart  
Brain  
Salivary gland

**New Mexico Department of Agriculture**  
**Veterinary Diagnostic Services**  
1101 Camino de Salud, NE  
Albuquerque, New Mexico 87102  
(505) 383-9299 phone  
(505) 383-9294 fax

Case #: 24-15158  
Owner: UNM MUSEUM OF SOUTHWESTERN BIO  
ID: NK311135  
Species:  
Breed:

DR. JEAN-LUC E. CARTRON  
Geologic Associates, Inc.  
6020 Academy Road NE, Suite  
ALBUQUERQUE, NM 87109

Received: 05/16/24  
Reported: 06/20/24  
**Final Report**

## CASE HISTORY

Specimen collected at Holloman Lake in Otero County, New Mexico. High exposure to PFAS very likely based on recent published research. Goal of necropsy is to document pathology related to PFAS at the organ and tissue levels. Specimens should be returned to UNM MSB and 1g of muscle tissue needed for PFAS screening.

## NECROPSY

This is the body of a 13 g, adult, male *Mus musculus*, with minimal autolysis (necropsy within hours of death). The liver weighs between 0.5 g and 1.0 g. The kidneys are greater than 0 g but less than 0.5 g. Organs are within normal limits grossly.

## HISTOPATHOLOGY

1. Brain: There are no significant findings.
- Salivary gland: There are no significant findings.
- Bone marrow: There are no significant findings.
2. Thyroid and parathyroid: There are no significant findings.
- Trachea: There are no significant findings.
- Esophagus: There are no significant findings.
- Heart: There are no significant findings.
- Lungs: There is diffuse vascular congestion, with variable atelectasis.
3. Liver: There is diffuse vascular congestion. Occasionally, there is mild intracytoplasmic vacuolation in hepatocytes (within normal limits for post-prandial mouse).
4. Pancreas: There are no significant findings.
- Kidney: There are no significant findings.
- Lymph node: There are no significant findings.
5. Testicle: There are no significant findings.
- Fat: There are no significant findings.
- Adrenal gland: There are no significant findings.
6. Small intestine: There is moderate to severe autolysis of the mucosa. There is increased mitotic activity/turnover in the crypts, but there are no increased chronic inflammatory cells at the base of the lamina propria.
7. Brain: There are no significant findings.
8. Bone marrow, bone, and surrounding skeletal muscle: There are no significant findings.

## FINAL COMMENTS

**\*\*Please see addendum below\*\***

There were no overt significant findings from this animal's gross necropsy and microscopic exam. There were some changes in the small intestine consistent with increased cell turnover, which can suggest enteritis. The villus tips of the intestine in this case are autolyzed, which makes interpretation a bit difficult (this unfortunately can happen even with necropsy within hours of death, given the number of bacteria in the GI tract). While this may be an enteritis, I do not see changes suggestive of Inflammatory bowel disease (IBD), which has been described in rats treated with PFOS.

While I am not convinced there are any significant changes in the small intestine we can attribute to PFAS, because IBD like lesions have been found in relation to PFAS in rats, I will consult with another pathologist, with results released in an addendum when this is completed, to see if they would consider this an IBD like lesion. I note that, even if other pathologists disagree and think there is an IBD like enteritis, there are so many possible causes of enteritis in a wild animal that it would be difficult to attribute it to PFAS in this case.

*Francisella tularensis* and *Yersinia pestis* were not cultured from this animal. PFAS analysis is pending.

Liang H, Yang M, Zeng C, Wu W, Zhao L, Wang Y. Perfluorooctane sulfonate exerts inflammatory bowel disease-like intestinal injury in rats. PeerJ. 2021

## ADDENDA COMMENTS

Addendum 06/20/24: The slides with liver, adrenals, and intestine were shared with Dr. Donna Kusewitt for a formal consult. Note: Some of the slides also had other organs, and she commented on them, as well. Dr. Kusewitt does not interpret an overt enteritis in

these slides, and liver and adrenals are within normal limits.

PFAS analysis is pending for this animal.

---

**Dr. Kusewitt's assessment:**

Case Number: V24 15158 (slides 3,5, and 6)

Animal Number: NK311135

Species: *Mus musculus*

Sex: Male

Organ: Liver

Post mortem condition: Mild autolysis

Observations: Hepatic lobules are discernible. There is very slight diffuse ragged vacuolation of hepatocyte cytoplasm interpreted as glycogen accumulation. In some centrilobular areas, hepatocytes contain clear-edged vacuoles interpreted as fat droplets. There is mild variation in the size of hepatocyte nuclei and small numbers of binucleate hepatocytes are present. A few portal triads contain small numbers of lymphoid cells. A few small, irregular foci of hemorrhage are seen; these are interpreted as artefactual. There is no evidence of neoplasia or infectious disease.

Organs: Testes

Post mortem condition: Good

Observations: Active spermatogenesis is evident in seminiferous tubules. There is no evidence of neoplasia or infectious disease.

Organ: Epididymis

Post mortem condition: Mild autolysis

Observations: Tubules are packed with mature sperm. There is no evidence of neoplasia or infectious disease.

Organ: Adrenal

Post mortem condition: Good

Observations: The adrenal surface is smooth. All layers of the cortex are present and symmetrical. The medulla is unexceptional. There is no evidence of neoplasia or inflammation.

Organ: Stomach

Post mortem condition: Moderate autolysis

Observations: Both glandular and non-glandular portions of the stomach are present. Mucosa in both areas of the stomach is entirely normal in appearance. Food is present in the stomach lumen. There is no evidence of neoplasia or inflammation.

Organ: Small intestine

Post mortem condition: Marked autolysis

Observations: Marked autolysis makes examination of the small intestine somewhat challenging. No shortening or fusion of villi is seen. There is no evidence of ulceration. The lamina propria contains numerous lymphoid cells, but these are uniformly distributed; the number of lymphoid cells is judged to be within normal limits. There is no evidence of neoplasia or inflammation.

Organ: Large intestine and cecum

Post mortem condition: Variable autolysis

Observations: The cecum is too autolytic to evaluate. Better preserved areas of the large intestine are unexceptional. There is no evidence of neoplasia or inflammation.

**Interpretation:** Liver vacuolation is within normal limits for an animal that is not fasting. Variation in the size of liver nuclei and the presence of binucleate hepatocytes are typical of rodents. The presence of lymphocytes adjacent to a few bile ducts is considered an incidental finding.

There is marked spermatogenesis in the testes, and the epididymis examined contains numerous mature sperm. This is compatible with active breeding.

No abnormalities are observed in the stomach or intestine, but post mortem autolysis may mask minor pathologic changes.

No abnormalities are seen in the adrenal.

Donna F. Kusewitt, DVM, PhD

Diplomate, ACVP

Veterinary Pathologist

**CASE DIAGNOSIS**

NO DIAGNOSIS

---

Teresa Garcia , DVM  
Diplomate, ACVP

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**  
**End of Report**

NEW MEXICO DEPARTMENT OF AGRICULTURE  
 VETERINARY DIAGNOSTIC SERVICES  
 PATHOLOGY TEST REQUEST FORM

V24

15158

Case #

\*\* Return form to Receiving staff following procedure(s). \*\*

- No Tests Required
  - Add Insurance/Forensic Charge
  - SLD Rabies case only
- Decap performed: \_\_\_\_\_  
 (initials/date)

Submitter: GARcia  
 Owner: VNM  
 Animal ID(s): NK 311135

Date Received: 5/16/14  
 Pathologist: TG

**Histopathology****NOTES:**

- Various Tissues
- Single Tissue Source: \_\_\_\_\_

**Bacteriology**Pooled Cases  No  Yes Case #s Pooled

Source(s) Lung, Liver, Spleen  
 Source(s) \_\_\_\_\_

Pooled Specific Requests \* Microscopic  Anaerobic  Sensi  
 Mycobacterium

**Molecular Biology**Pooled Cases  No  Yes Case #s Pooled**\* Specify test method**

* Test _____	Pooled <input type="checkbox"/>	Referral Lab	Date Routed	Courier	Initials
Source(s) _____					
* Test _____	Pooled <input type="checkbox"/>	Referral Lab	Date Routed	Courier	Initials
Source(s) _____					
* Test _____	Pooled <input type="checkbox"/>	Referral Lab	Date Routed	Courier	Initials
Source(s) _____					

**Virology / Other**Pooled Cases  No  Yes Case #s Pooled**\* Specify test method**

* Test <u>PPAS</u>	Pooled <input type="checkbox"/>	Referral Lab	Date Routed	Courier	Initials
Source(s) <u>skunk muscle</u>					
* Test _____	Pooled <input type="checkbox"/>	Referral Lab	Date Routed	Courier	Initials
Source(s) _____					
* Test _____	Pooled <input type="checkbox"/>	Referral Lab	Date Routed	Courier	Initials
Source(s) _____					

**Storage of specimens**

\*Locations include: room temperature = RT, refrigerator = R, refrigerator freezer = RF, deep freeze = D, ultralow freezer = U

Date _____	Specimen(s) _____	Location* _____	Requested storage time _____
Date _____	Specimen(s) _____	Location* _____	Requested storage time _____

Date: 5/16/2024  
Accession: V24-15158 NK 311135      Hare major  
Mus musculus

Animal weight: 13g

Muscle collected for PFAS: yes

arm, leg, <0.5g  
posterior

Male

Liver weight: 0.5g - 1g (close to 1g)

Kidney L weight: 0 - 0.5g

Kidney R weight: 0 - 0.5g

Kidney collected for microplastics: ~0

Gross findings: within normal limits

Histology:

Skin (where):

Muscle (which):

Femur (bone marrow)

Spleen

Pancreas (around spleen)

Liver

Kidney (side):

Adrenal:

Lymph nodes (mesenteric):

Bladder

GI (stomach and intestines)

Reproductive tract

Tongue

Esophagus

Thyroid, trachea (en bloc):

Lung

Heart

Brain

Salivary gland

**New Mexico Department of Agriculture**  
**Veterinary Diagnostic Services**  
1101 Camino de Salud, NE  
Albuquerque, New Mexico 87102  
(505) 383-9299 phone  
(505) 383-9294 fax

**Case #:** 24-15159  
**Owner:** UNM MUSEUM OF SOUTHWESTERN BIO  
**ID:** NK311138  
**Species:**  
**Breed:**

DR. JEAN-LUC E. CARTRON  
Geologic Associates, Inc.  
6020 Academy Road NE, Suite  
ALBUQUERQUE, NM 87109

**Received:** 05/16/24  
**Reported:** 06/20/24  
**Final Report**

## CASE HISTORY

Specimen collected at Holloman Lake in Otero County, New Mexico. High exposure to PFAS very likely based on recent published research. Goal of necropsy is to document pathology related to PFAS at the organ and tissue levels. Specimens should be returned to UNM MSB and 1g of muscle tissue needed for PFAS screening.

## NECROPSY

This is the body of a 25.5 g, adult, female, *Peromyscus leucopus*, with minimal autolysis (necropsy performed within hours of death). The liver weighs 1.5 g. Each kidney weighs more than 0 g but less than 0.5 grams. All organs are grossly within normal limits.

## HISTOPATHOLOGY

1. Brain: There are no significant findings.
2. Heart: There are no significant findings.
- Esophagus: There are no significant findings
- Lung: There is diffuse vascular congestion, with variable atelectasis. There is very mild hemorrhage within alveolar spaces.
- Trachea: There are no significant findings
- Fat: There are no significant findings
3. Esophagus: There are occasional protozoal cysts (sarcocysts) within the cytoplasm of skeletal muscle fibers in the wall of the esophagus, with no associated inflammatory response.
- Tongue: There are occasional sarcocysts within skeletal muscle fibers, with no associated inflammatory response.
- Liver: There is mild, intracytoplasmic, indistinct, clear vacuolation of hepatocytes, diffusely (within normal limits for a postprandial mouse).
4. Kidneys: There are no significant findings
- Spleen: There are no significant findings
5. Liver: There are changes as described above. In addition, there are occasional pigment granulomas.
6. Uterus: There are no significant findings.
- Ovaries: There are no significant findings.
7. Eye: There are no significant findings.
- Skin: There are no significant findings
8. Stomach: There are no significant findings
- Pancreas: There are no significant findings
- Small intestine: There are no significant findings
- Large intestine: There are no significant findings
9. Bone marrow, bone, and surrounding skeletal muscle: There are frequent sarcocysts within skeletal muscle fibers. There are no significant findings in the bone marrow or bone.

## FINAL COMMENTS

**\*\*Please see addendum below\*\***

There were no significant findings from this animal's necropsy and microscopic exam. *Francisella tularensis* and *Yersinia pestis* were not cultured from this animal. PFAS analysis is pending. I am consulting with another pathologist on a few organs, and, when completed, results will be released in an addendum.

## ADDENDA COMMENTS

Addendum 06/20/24: The slide with liver was shared with Dr. Donna Kusewitt for a formal consult. Dr. John Ragsdale also assessed the liver, informally. I have copied Dr. Kusewitt's complete assessment below, including her interpretations. Note: The slide also had other organs, and she commented on them, as well.

Dr. Kusewitt interpreted the liver as being within normal limits for a non-fasted rodent. Similar to the liver for V24-15155, Dr. Ragsdale thought that, while the liver vacuolation could be within normal limits for a post-prandial mouse, and he wouldn't call it a toxic hepatopathy, he can't rule out the vacuolation isn't due to a xenobiotic.

PFAS analysis is pending for this animal.

**Dr. Kusewitt's assessment:**

Case Number: V24 15159

Animal Number: NK311138

Species: *Peromyscus leucopus*

Sex: Female

Organ: Liver

Post mortem condition: Mild autolysis

Observations: Hepatic lobules are discernible. There is moderate diffuse ragged vacuolation of hepatocyte cytoplasm interpreted as glycogen accumulation. There is mild variation in the size of hepatocyte nuclei and small numbers of binucleate hepatocytes are present. A few portal triads contain small numbers of lymphoid cells. There is a single small focus of parenchymal necrosis. There is no evidence of neoplasia or infectious disease.

Organ: Gall bladder

Post mortem condition: Moderate autolysis

Observations: No abnormalities are seen.

**Interpretation:** Liver vacuolation in rodents is highly variable, depending on the feeding status. In the present case, the extent and pattern of vacuolation is within normal limits. Variation in the size of liver nuclei and the presence of binucleate hepatocytes are typical of rodents. Lymphoid cells surrounding a few bile ducts and a single small focus of necrosis in the liver are considered incidental findings.

Donna F. Kusewitt, DVM, PhD

Diplomate, ACVP

Veterinary Pathologist

**CASE DIAGNOSIS**

NO DIAGNOSIS

---

Teresa Garcia , DVM

Diplomate, ACVP

Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**

**End of Report**

NEW MEXICO DEPARTMENT OF AGRICULTURE  
VETERINARY DIAGNOSTIC SERVICES  
PATHOLOGY TEST REQUEST FORM

V24

15159

Case #

\*\* Return form to Receiving staff following procedure(s). \*\*

- No Tests Required
- Add Insurance/Forensic Charge
- SLD Rabies case only
- Decap performed: \_\_\_\_\_  
(initials/date)

Submitter: GARCIA  
Owner: UNM  
Animal ID(s): NK311138

Date Received: 5/16/24  
Pathologist: +G

Histopathology

NOTES:

<input checked="" type="checkbox"/> Various Tissues	
<input type="checkbox"/> Single Tissue Source: _____	

Bacteriology

Pooled Cases  No  Yes Case #s Pooled

\* Additional specific testing

Source(s) Lung, Liver, Spleen	<input type="checkbox"/> Pooled	<input checked="" type="checkbox"/> Specific Requests * <i>Wuchereria/Plague</i>	<input type="checkbox"/> Anaerobic	<input type="checkbox"/> Sensi
Source(s) _____	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>

Molecular Biology

Pooled Cases  No  Yes Case #s Pooled

\* Specify test method

* Test <i>PRAS</i>	<input type="checkbox"/> Pooled	Referral Lab	Date Routed	Courier	Initials
Source(s) <i>Skinned muscle (submit 76031421)</i>	<input type="checkbox"/>	_____	_____	_____	_____
* Test <i>(client will submit)</i>	<input type="checkbox"/> Pooled	Referral Lab	Date Routed	Courier	Initials
Source(s) _____	<input type="checkbox"/>	_____	_____	_____	_____
* Test _____	<input type="checkbox"/> Pooled	Referral Lab	Date Routed	Courier	Initials
Source(s) _____	<input type="checkbox"/>	_____	_____	_____	_____

Virology / Other

Pooled Cases  No  Yes Case #s Pooled

\* Specify test method

* Test _____	<input type="checkbox"/> Pooled	Referral Lab	Date Routed	Courier	Initials
Source(s) _____	<input type="checkbox"/>	_____	_____	_____	_____
* Test _____	<input type="checkbox"/> Pooled	Referral Lab	Date Routed	Courier	Initials
Source(s) _____	<input type="checkbox"/>	_____	_____	_____	_____
* Test _____	<input type="checkbox"/> Pooled	Referral Lab	Date Routed	Courier	Initials
Source(s) _____	<input type="checkbox"/>	_____	_____	_____	_____

Storage of specimens

\*Locations include: room temperature = RT, refrigerator = R, refrigerator freezer = RF, deep freeze = D, ultralow freezer = U

Date _____	Specimen(s) _____	Location* _____	Requested storage time _____
Date _____	Specimen(s) _____	Location* _____	Requested storage time _____

VDS FORM: PA-009

Form PA-009 - Pathology Test Request Form - Version 2.0. Index. Form PA-009 Printed 06-Jun-2018 15:52

Authorised on: 06-Jun-2018 Authorised by: Kim Ethridgehill Unique Reference: 820-71608757 See iPassport for review timelines

Author(s): John Pagsdale, Kim Ethridgehill

EB / Date: \_\_\_\_\_

Date: 5/16/2024

Accession: V24-15159 NK311138 *Persomyscus leucopus*

Animal weight: 25.5g

Muscle collected for PFAS: femoral, tibial, and pectoral <0.5g

Liver weight: 1.5g

Kidney L weight: <0.5g

Kidney R weight: <0.5g

Kidney collected for microplastics: no

Gross findings: w. thin normal limits

Female

Histology:

Skin (where):

Muscle (which):

Femur (bone marrow)

Spleen

Pancreas (around spleen)

Liver

Kidney (side):

Adrenal:

Lymph nodes (mesenteric):

Bladder

GI (stomach and intestines)

Reproductive tract

Tongue

Esophagus

Thyroid, trachea (en bloc):

Lung

Heart

Brain

Salivary gland

**New Mexico Department of Agriculture**  
**Veterinary Diagnostic Services**  
1101 Camino de Salud, NE  
Albuquerque, New Mexico 87102  
(505) 383-9299 phone  
(505) 383-9294 fax

Case #: 24-29669  
Owner: UNM Museum of Southwest Biol  
ID: AQ001 NK311147  
Species:  
Breed:

DR. JEAN-LUC E. CARTRON  
Geologic Associates, Inc.  
6020 Academy Road NE, Sui  
ALBUQUERQUE, NM 87109

Received: 11/13/24  
Reported: 12/14/24  
Final Report

## NECROPSY

The carcass presented for postmortem examination was an adult, 39.06 grams, female, Merriam's kangaroo rat. The kangaroo rat was identified as "AQ 001" and "NK311147". The rat was in good body condition with minimal postmortem decomposition. The subcutis and organs were dry and tacky suggesting dehydration. The stomach, small intestine, and large intestine were filled with dark red to black digested blood. The liver mass 1.27 grams. The combined mass of the right and left kidneys was 0.54 grams. There were no other significant lesions.

## HISTOPATHOLOGY

There is multifocal necrosis of the glandular epithelium of the mucosa of the stomach that varies in thickness. The foci of necrosis are filled with necrotic debris, fibrin, hemorrhage, and hemoglobin-breakdown pigments. The submucosa associated with the mucosal epithelial necrosis is edematous. The adjacent gastric glandular epithelium is degenerate with hemorrhage in the associated lamina propria.

There are rare random and multifocal small infiltrates of small numbers of macrophages and lesser numbers of lymphocytes in the liver that are occasionally associated with apoptotic hepatocytes.

There are no significant microscopic lesions in the tongue, larynx, esophagus, trachea, salivary gland, lymph nodes, lung, heart, spleen, kidneys, adrenal glands, small intestine, large intestine, pancreas, uterus, urinary bladder, skeletal muscle, or brain.

## FINAL COMMENTS

The rat had multiple punctate gastric erosions/ulcers that resulted in blood loss into the gastrointestinal tract. The cause of the gastric ulcers could not be determined because there was no evidence of inflammation, infectious organisms, neoplasia, or parasites that could have caused the gastric ulcer. The relationship between the gastric ulcers and PFAS concentrations is not known.

There were rare microgranulomas in the liver of this rat. Microgranulomas are common in the livers of laboratory mice and rats in both control and study populations. The cause of the microgranulomas is not known, and they are typically considered to be nonspecific background changes. The significance of hepatic microgranulomas in wild rats is not known.

Thoolen B, Maronpot R, Harada T, Nyska A, Rousseaux C, Nolte T, *et al.* Proliferative and nonproliferative lesions of the rat and mouse hepatobiliary system. *Tox Pathol.* 2010;38: 5S-81S.

## CASE DIAGNOSIS

GASTRIC ULCER

---

John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**  
**End of Report**

**New Mexico Department of Agriculture**  
**Veterinary Diagnostic Services**  
1101 Camino de Salud, NE  
Albuquerque, New Mexico 87102  
(505) 383-9299 phone  
(505) 383-9294 fax

Case #: 24-29669  
Owner: UNM Museum of Southwest Biol  
ID: AQ001 NK311147  
Species:  
Breed:

DR. JEAN-LUC E. CARTRON  
Geologic Associates, Inc.  
6020 Academy Road NE, Sui  
ALBUQUERQUE, NM 87109

Received: 11/13/24  
Reported: 12/14/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 39.06 grams, female, Merriam's kangaroo rat. The kangaroo rat was identified as "AQ 001" and "NK311147". The rat was in good body condition with minimal postmortem decomposition. The subcutis and organs were dry and tacky suggesting dehydration. The stomach, small intestine, and large intestine were filled with dark red to black digested blood. The liver mass 1.27 grams. The combined mass of the right and left kidneys was 0.54 grams. There were no other significant lesions.

## HISTOPATHOLOGY

There is multifocal necrosis of the glandular epithelium of the mucosa of the stomach that varies in thickness. The foci of necrosis are filled with necrotic debris, fibrin, hemorrhage, and hemoglobin-breakdown pigments. The submucosa associated with the mucosal epithelial necrosis is edematous. The adjacent gastric glandular epithelium is degenerate with hemorrhage in the associated lamina propria.

There are rare random and multifocal small infiltrates of small numbers of macrophages and lesser numbers of lymphocytes in the liver that are occasionally associated with apoptotic hepatocytes.

There are no significant microscopic lesions in the tongue, larynx, esophagus, trachea, salivary gland, lymph nodes, lung, heart, spleen, kidneys, adrenal glands, small intestine, large intestine, pancreas, uterus, urinary bladder, skeletal muscle, or brain.

## FINAL COMMENTS

The rat had multiple punctate gastric erosions/ulcers that resulted in blood loss into the gastrointestinal tract. The cause of the gastric ulcers could not be determined because there was no evidence of inflammation, infectious organisms, neoplasia, or parasites that could have caused the gastric ulcer. The relationship between the gastric ulcers and PFAS concentrations is not known.

There were rare microgranulomas in the liver of this rat. Microgranulomas are common in the livers of laboratory mice and rats in both control and study populations. The cause of the microgranulomas is not known, and they are typically considered to be nonspecific background changes. The significance of hepatic microgranulomas in wild rats is not known.

Thoolen B, Maronpot R, Harada T, Nyska A, Rousseaux C, Nolte T, *et al.* Proliferative and nonproliferative lesions of the rat and mouse hepatobiliary system. *Tox Pathol.* 2010;38: 5S-81S.

## CASE DIAGNOSIS

GASTRIC ULCER

---

John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**  
**End of Report**

**New Mexico Department of Agriculture**  
**Veterinary Diagnostic Services**  
1101 Camino de Salud, NE  
Albuquerque, New Mexico 87102  
(505) 383-9299 phone  
(505) 383-9294 fax

Case #: 24-29670  
Owner: UNM Museum of Southwest Biol  
ID: AQ-002 NK311148  
Species:  
Breed:

DR. JEAN-LUC E. CARTRON  
Geologic Associates, Inc.  
6020 Academy Road NE, Suite  
ALBUQUERQUE, NM 87109

Received: 11/13/24  
Reported: 12/14/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 41.61 grams, male, Merriam's kangaroo rat. The kangaroo rat was identified as "AQ 002" and "NK311148". The rat was in good body condition with minimal postmortem decomposition. The liver mass was 1.64 grams. The mass of the combined right and left kidneys was 0.58 grams. There were significant lesions in the thoracic viscera, abdominal viscera, skeletal muscle, or brain.

## HISTOPATHOLOGY

There are rare random and multifocal small infiltrates of small numbers of macrophages and lesser numbers of lymphocytes in the liver that are occasionally associated with apoptotic hepatocytes.

The lumen of the small intestine contains small numbers of adult cestodes (tapeworms).

There are no significant microscopic lesions in the tongue, larynx, esophagus, thyroid gland, lymph nodes, lung, heart, spleen, kidneys, stomach, large intestine, pancreas, testicles, accessory sex glands, urinary bladder, skeletal muscle, or brain.

## FINAL COMMENTS

The rat was mildly parasitized by tapeworms in the small intestine.

There were rare microgranulomas in the liver of this rat. Microgranulomas are common in the livers of laboratory mice and rats in both control and study populations. The cause of the microgranulomas is not known, and they are typically considered to be nonspecific background changes. The significance of hepatic microgranulomas in wild rats is not known.

Thoolen B, Maronpot R, Harada T, Nyska A, Rousseaux C, Nolte T, et al. Proliferative and nonproliferative lesions of the rat and mouse hepatobiliary system. Tox Pathol. 2010;38: 5S-81S.

## CASE DIAGNOSIS

ENDOPARASITISM

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**

**End of Report**

**New Mexico Department of Agriculture**  
**Veterinary Diagnostic Services**  
1101 Camino de Salud, NE  
Albuquerque, New Mexico 87102  
(505) 383-9299 phone  
(505) 383-9294 fax

**Case #:** 24-29671  
**Owner:** UNM Museum of Southwest Biol  
**ID:** AQ-003 NK311149  
**Species:**  
**Breed:**

DR. JEAN-LUC E. CARTRON  
Geologic Associates, Inc.  
6020 Academy Road NE, Sui  
ALBUQUERQUE, NM 87109

**Received:** 11/13/24  
**Reported:** 12/14/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 39.64 grams, male, Merriam's kangaroo rat. The kangaroo rat was identified as "AQ 003" and "NK311149". The rat was in good body condition with minimal postmortem decomposition. The liver mass 1.28 grams. The combined mass of the right and left kidneys was 0.47 grams. There were no significant lesions in the thoracic viscera, abdominal viscera, skeletal muscle, or brain.

## HISTOPATHOLOGY

There is focally extensive necrosis of the luminal aspect of the glandular epithelium of the mucosa of the stomach. The focus of necrosis is filled with necrotic debris, fibrin, hemorrhage, and hemoglobin-breakdown pigments. The submucosa associated with the mucosal epithelial necrosis is edematous. The adjacent gastric glandular epithelium is degenerate with hemorrhage in the associated lamina propria.

There are rare random and multifocal small infiltrates of small numbers of macrophages and lesser numbers of lymphocytes in the liver that are occasionally associated with apoptotic hepatocytes.

The lumen of the small intestine contains small numbers of adult nematodes.

There are no significant microscopic lesions in the tongue, larynx, esophagus, trachea, thyroid gland, lung, heart, spleen, kidneys, large intestine, pancreas, testicles, accessory sex glands, urinary bladder, skeletal muscle, or brain.

## FINAL COMMENTS

The rat had a punctate gastric erosion/ulcer that resulted in small amounts of blood loss into the stomach. The cause of the gastric ulcer could not be determined because there was no evidence of inflammation, infectious organisms, neoplasia, or stomach parasites that could have caused the gastric ulcer. The relationship between the gastric ulcer and PFAS concentrations is not known.

The rat was parasitized by small numbers of adult nematodes in the small intestine.

There were rare microgranulomas in the liver of this rat. Microgranulomas are common in the livers of laboratory mice and rats in both control and study populations. The cause of the microgranulomas is not known, and they are typically considered to be nonspecific background changes. The significance of hepatic microgranulomas in wild rats is not known.

Thoolen B, Maronpot R, Harada T, Nyska A, Rousseaux C, Nolte T, et al. Proliferative and nonproliferative lesions of the rat and mouse hepatobiliary system. Tox Pathol. 2010;38: 5S-81S.

## CASE DIAGNOSIS

ENDOPARASITISM  
GASTRIC ULCER

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

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**New Mexico Department of Agriculture**  
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1101 Camino de Salud, NE  
Albuquerque, New Mexico 87102  
(505) 383-9299 phone  
(505) 383-9294 fax

Case #: 24-29672  
Owner: UNM Museum of Southwest Biol  
ID: AQ-004 NK311150  
Species:  
Breed:

DR. JEAN-LUC E. CARTRON  
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6020 Academy Road NE, Sui  
ALBUQUERQUE, NM 87109

Received: 11/13/24  
Reported: 12/14/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 31.34 grams, male, Merriam's kangaroo rat. The kangaroo rat was identified as "AQ 004" and "NK311150". The rat was in good body condition with minimal postmortem decomposition. The liver mass 1.10 grams. The combined mass of the right and left kidneys was 0.47 grams. There were no significant lesions in the thoracic viscera, abdominal viscera, skeletal muscle, or brain.

## HISTOPATHOLOGY

There are rare random and multifocal small infiltrates of small numbers of macrophages and lesser numbers of lymphocytes in the liver that are occasionally associated with apoptotic hepatocytes.

There are no significant microscopic lesions in the tongue, larynx, esophagus, trachea, lymph nodes, lung, heart, spleen, kidneys, adrenal glands, stomach, small intestine, large intestine, pancreas, testicles, accessory sex glands, urinary bladder, skeletal muscle, or brain.

## FINAL COMMENTS

There were rare microgranulomas in the liver of this rat. Microgranulomas are common in the livers of laboratory mice and rats in both control and study populations. The cause of the microgranulomas is not known, and they are typically considered to be nonspecific background changes. The significance of hepatic microgranulomas in wild rats is not known.

Thoolen B, Maronpot R, Harada T, Nyska A, Rousseaux C, Nolte T, et al. Proliferative and nonproliferative lesions of the rat and mouse hepatobiliary system. Tox Pathol. 2010;38: 5S-81S.

## CASE DIAGNOSIS

NO SIGNIFICANT LESIONS

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

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**End of Report**

**New Mexico Department of Agriculture****Veterinary Diagnostic Services**

1101 Camino de Salud, NE  
Albuquerque, New Mexico 87102  
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**Case #:** 24-29673  
**Owner:** UNM Museum of Southwest Biol  
**ID:** AQ-006 NK311152  
**Species:**  
**Breed:**

DR. JEAN-LUC E. CARTRON  
Geologic Associates, Inc.  
6020 Academy Road NE, Sui  
ALBUQUERQUE, NM 87109

**Received:** 11/13/24  
**Reported:** 12/14/24  
**Final Report**

**NECROPSY**

The carcass presented for postmortem examination was an adult, 37.16 grams, female, Merriam's kangaroo rat. The kangaroo rat was identified as "AQ 006" and "NK311152". The rat was in good body condition with minimal postmortem decomposition. The liver mass 1.37 grams. The combined mass of the right and left kidneys was 0.58 grams. There were no significant lesions in the thoracic viscera, abdominal viscera, skeletal muscle, or brain.

**HISTOPATHOLOGY**

There are rare random and multifocal small infiltrates of small numbers of macrophages and lesser numbers of lymphocytes in the liver that are occasionally associated with apoptotic hepatocytes.

There are small numbers of myofibers in the skeletal muscle that contain variably sized protozoal cysts. The cysts are filled with numerous estimated 5 - 7 micron diameter crescent-shaped bradyzoites.

There are no significant microscopic lesions in the tongue, larynx, thyroid gland, trachea, esophagus, lungs, heart, spleen, kidneys, adrenal glands, stomach, small intestine, large intestine, pancreas, lymph nodes, urinary bladder, or brain.

**FINAL COMMENTS**

The rat had small numbers of sarcocysts in the skeletal muscle. Sarcocysts are the intermediate stage of *Sarcocystis* species. When a predator eats an animal with sarcocysts, the protozoa will mature within the predator to complete their life cycle.

There were rare microgranulomas in the liver of this rat. Microgranulomas are common in the livers of laboratory mice and rats in both control and study populations. The cause of the microgranulomas is not known, and they are typically considered to be nonspecific background changes. The significance of hepatic microgranulomas in wild rats is not known.

Thoolen B, Maronpot R, Harada T, Nyska A, Rousseaux C, Nolte T, et al. Proliferative and nonproliferative lesions of the rat and mouse hepatobiliary system. Tox Pathol. 2010;38: 5S-81S.

**CASE DIAGNOSIS**

SARCOCYST

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**

**End of Report**

**New Mexico Department of Agriculture**  
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Case #: 24-29674  
Owner: UNM Museum of Southwest Biol  
ID: AQ-08 NK311154  
Species:  
Breed:

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ALBUQUERQUE, NM 87109

Received: 11/13/24  
Reported: 12/14/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 38.93 grams, male, Merriam's kangaroo rat. The kangaroo rat was identified as "AQ 08" and "NK311154". The rat was in good body condition with minimal postmortem decomposition. The liver mass 1.31 grams. The combined mass of the right and left kidneys was 0.54 grams. There were no significant lesions in the thoracic viscera, abdominal viscera, skeletal muscle, or brain.

## HISTOPATHOLOGY

There are rare random and multifocal small infiltrates of small numbers of macrophages and lesser numbers of lymphocytes in the liver that are occasionally associated with apoptotic hepatocytes.

The lumen of the small intestine contains small numbers of adult nematodes.

There are no significant microscopic lesions in the tongue, larynx, thyroid gland, esophagus, lung, heart, spleen, kidneys, adrenal glands, lymph nodes, stomach, small intestine, large intestine, pancreas, testicles, accessory sex glands, urinary bladder, or brain.

## FINAL COMMENTS

The rat was mildly parasitized with small numbers of nematodes in the small intestine.

There were rare microgranulomas in the liver of this rat. Microgranulomas are common in the livers of laboratory mice and rats in both control and study populations. The cause of the microgranulomas is not known, and they are typically considered to be nonspecific background changes. The significance of hepatic microgranulomas in wild rats is not known.

Thoolen B, Maronpot R, Harada T, Nyska A, Rousseaux C, Nolte T, et al. Proliferative and nonproliferative lesions of the rat and mouse hepatobiliary system. Tox Pathol. 2010;38: 5S-81S.

## CASE DIAGNOSIS

ENDOPARASITISM

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**

**End of Report**

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**Case #:** 24-29675  
**Owner:** UNM Museum of Southwest Biol  
**ID:** AQ-007 NK311153  
**Species:** Mouse NOS  
**Breed:** Mouse NOS

DR. JEAN-LUC E. CARTRON  
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6020 Academy Road NE, Sui  
ALBUQUERQUE, NM 87109

**Received:** 11/13/24  
**Reported:** 12/14/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 11.39 grams, female, Chihuahuan pocket mouse. The pocket mouse was identified as "AQ 007" and "NK311153". The mouse was in good body condition with minimal postmortem decomposition. The liver mass 0.46 grams. The combined mass of the right and left kidneys was 0.20 grams. There were no significant lesions in the thoracic viscera, abdominal viscera, skeletal muscle, or brain.

## HISTOPATHOLOGY

There are no significant microscopic lesions in the tongue, larynx, trachea, esophagus, thyroid gland, lungs, heart, liver, spleen, kidneys, adrenal glands, stomach, small intestine, large intestine, pancreas, uterus, skeletal muscle, brain, and a single cross section of the spinal cord.

## FINAL COMMENTS

There are no significant lesion in the pocket mouse. There is no evidence of infectious disease, parasitism, neoplasia, or toxicosis.

## CASE DIAGNOSIS

NO SIGNIFICANT LESIONS

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**  
**End of Report**

**New Mexico Department of Agriculture**  
**Veterinary Diagnostic Services**  
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Case #: 24-29676  
Owner: UNM Museum of Southwest Biol  
ID: AQ-005 NK311151  
Species:  
Breed:

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ALBUQUERQUE, NM 87109

Received: 11/13/24  
Reported: 12/14/24  
**Final Report**

## NECROPSY

The carcass presented for postmortem examination was an adult, 18.82 grams, male, deer mouse. The deer mouse was identified as "AQ 005" and "NK311151". The mouse was in good body condition with minimal postmortem decomposition. The liver mass 0.81 grams. The combined mass of the right and left kidneys was 0.40 grams. There were no significant lesions in the thoracic viscera, abdominal viscera, skeletal muscle, or brain.

## HISTOPATHOLOGY

There are rare random and multifocal small infiltrates of small numbers of macrophages and lesser numbers of lymphocytes in the liver that are occasionally associated with apoptotic hepatocytes.

There are no significant microscopic lesions in the tongue, larynx, trachea, esophagus, thyroid gland, lungs, heart, spleen, kidneys, adrenal glands, lymph nodes, skeletal muscle, stomach, small intestine, large intestine, urinary bladder, testicles, accessory sex glands, or brain.

## FINAL COMMENTS

There were rare microgranulomas in the liver of this mouse. Microgranulomas are common in the livers of laboratory mice and rats in both control and study populations. The cause of the microgranulomas is not known, and they are typically considered to be nonspecific background changes. The significance of hepatic microgranulomas in wild mice is not known.

Thoolen B, Maronpot R, Harada T, Nyska A, Rousseaux C, Nolte T, et al. Proliferative and nonproliferative lesions of the rat and mouse hepatobiliary system. Tox Pathol. 2010;38: 5S-81S.

## CASE DIAGNOSIS

NO SIGNIFICANT LESIONS

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John Ragsdale , DVM, PhD  
Diplomate, ACVP  
Veterinary Pathologist

**Confidential report intended for individual/organization addressed. Results apply to samples as received.**

**End of Report**