

# PFAS SAMPLING FOR DUE DILIGENCE

## MOUNTAIN VIEW, CA

EKI performed a due diligence investigation prior to development at a portion of a military facility that was known to have historic use of per- and polyfluoroalkyl substances (PFAS). The purpose of the investigation was to assess (1) whether soil moved during construction could be reused on-site or needed to be disposed off-site, and (2) whether PFAS was present in dewatering water thereby needing treatment prior to discharge.

### Sample Collection Protocols

Strict protocols were followed to prevent (1) unintended introduction of PFAS into the soil and groundwater samples and (2) cross-contamination between samples. Specifically, before advancing the direct push rig into the subsurface, the rods were cleaned with Liquinox and thoroughly rinsed with UltraPure PFAS free water obtained from a laboratory. New PVC casing (custom ordered to have never been wrapped in plastic) was used as temporary casing, and a peristaltic pump with new silicone tubing and new high-density polyethylene (HDPE) tubing was used to pump the groundwater into laboratory supplied HDPE containers. Quality Control (QC) samples included an equipment rinsate blank on the PVC casing and two rinsate blanks on the HDPE and silicone tubing using laboratory provided UltraPure PFAS free water.

### Summary of Findings

PFAS compounds were detected at concentrations above typical screening levels (SLs) in soil as well California State Water Resources Control Board (State Board) Response Levels (RLs) and Notification Levels (NLs) in groundwater.

- **Soil:** PFAS were reported in the utility locating hydrovac spoils and in two of the three samples from one location at concentrations above SLs (e.g., Updated Regional Screening Levels, May 2022, for protection of surface water and groundwater).
- **Groundwater:** PFAS were reported in all groundwater samples. Perfluorooctanoic acid (PFOA) concentrations in all five of grab groundwater samples collected during this investigation exceeded the State Board RL for PFOA of 10 parts per trillion (ppt). One of the five groundwater samples exceeded the perfluorooctane sulfonate (PFOS) RL of 40 ppt and two additional samples exceeded the State Board's NL. All five groundwater samples exceeded the State Board's proposed NL for perfluorohexane sulfonic acid (PFHxS) of two ppt.
- **QC Samples:** PFAS were not detected at concentrations above the analytical reporting limit in any of the three equipment blank samples.

Wear field clothing made of synthetic or 100% cotton, well washed without fabric softener

Use lab-provided sample containers, including HDPE or PP

Wear boots waterproofed with polyurethane and/or PVC, or PFAS-free over-boots

HDPE bags preferred, but Ziplok® also acceptable

Acceptable waterproof clothing is made with PVC, polyurethane, wax-coated fabrics, rubber, or neoprene

Use wet ice only; avoid blue ice or other ice substitutes

Avoid applying PCPs, including sunscreen\* and makeup, near sampling area

Wear only powderless nitrile gloves

No food or drink outside eating area. Wash hands thoroughly with soapy water after eating

Avoid PTFE (Teflon®), Sharpies®, Decon 90®

PVC: polyvinyl chloride PCPs: personal care products HDPE: high density polyethylene PP: polypropylene \*Ask for a list of acceptable sunscreens

