CASE STUDY: PFAS Water Treatment Hanger 2, Lift Station Canadian Forces Base

Edmonton, AB

BACKGROUND:

NELSON Environmental Group Inc. (Parent Company) reached out to SCG Remediation Services to respond to a release of Aqueous film-forming foam (AFFF) entering the sanitary system at the Hanger 2 Lift Station at CFB Edmonton.

Initial clean-out conducted by NELSON.

SCOPE OF WORK:

- Equipment mobilization, manpower, and materials to NELSON's facility in Spruce Grove, AB.
- Preparation, set up, and operation of the water treatment system for PFAS contaminated groundwater.
- The processing of 6,000 L of contaminated water over five days of operation (including set up, tear down, etc.).
- Collection of water samples for confirmation of treatment capabilities.

SCG's Approach: A combination of adsorption media and filtration.

After the initial treatment of 6,000 L, approval was granted for the treatment of the remaining volume of 30,000 L.



Industry:

MILITARY

OUTCOME: Non-Detect PFAS

CARCO ANALYTICAL SERVICES TEST RESULTS		\prec	
REPORTED TO SCG Industries PROJECT Nelson PEAS		WORK ORDER	21E2296
PROJECT Nelson PFAS		REPORTED	2021-06-05 16:30
Tank #1 First Pass (21E2296-01) Matrix: Water Sampled: 2021-05-19			
Perfluorinated Compounds			
Perfluorooctanesulfonate (PFOS)	< 0.020	0.020 µg/L	2021-06-05
Perfluorooctanoic acid (PFOA)	< 0.020	0.020 µg/L	2021-06-05
Perfluoropentanoic acid (PFPeA)	< 0.020	0.020 µg/L	2021-06-05
Perfluorobutanesulfonate (PFBS)	< 10.0	10.0 µg/L	2021-06-05
Perfluorohexanoic acid (PFHxA)	< 0.010	0.010 µg/L	2021-06-05
Perfluoroheptanoic acid (PFHpA)	< 0.010	0.010 µg/L	2021-06-05
Perfluorohexanesulfonate (PFHxS)	< 0.020	0.020 µg/L	2021-06-05
Perfluoroheptane sulfonate (PFHpS)	< 0.020	0.020 µg/L	2021-06-05
Perfluorononanoic acid (PFNA)	< 0.020	0.020 µg/L	2021-06-05
Perfluorodecanoic acid (PFDA)	< 0.020	0.020 µg/L	2021-06-05
Perfluoroundecanoic acid (PFUnA)	< 0.020	0.020 µg/L	2021-06-05
Perfluorodecanesulfonate (PFDS)	< 0.040	0.040 µg/L	2021-06-05
Perfluorododecanoic acid (PFDoA)	< 0.030	0.030 µg/L	2021-06-05
Perfluorotetradecanoic acid (PFTeA)	< 0.020	0.020 µg/L	2021-06-05
Perfluorooctanesulfonamide (PFOSA)	< 0.020	0.020 µg/L	2021-06-05
Perfluorotridecanoic acid (PFTrA)	< 0.020	0.020 µg/L	2021-06-05
Perfluorobutanoic acid (PFBA)	< 10.0	10.0 µg/L	2021-06-05



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