Superior Accomplishment Award

April 2025

EMPLOYEE: Jack Rayl
UNIT: Groundwater Unit
TITLE: Engineering Geologist
SUPERVISOR/TITLE: Mey Bunte, Senior Water Resource Control Engineer

---

Jack Rayl has been with the Redding Groundwater Unit since 2022. His expertise in environmental fieldwork, which was mastered during his eight years in consulting, is an asset to the Groundwater Unit. A sample result is only as reliable as its method of collection; Jack prioritizes the importance of sampling integrity, raising the standard of practice. In addition to traditional sampling techniques, Jack is well versed in newer technologies and tools such as sonic drilling and x-ray fluorescence. He is also a professional at vapor sampling, specifically sub-slab and indoor air, which has become a larger component of site cleanup work as the board focuses on subsurface contamination and its direct effects on indoor living spaces.

Jack has earned this Superior Accomplishment Award for his excellent work on the Reynolds and Evoqua PFAS investigations. PFAS is an emerging class of over 14,000 chemicals, many which cause cancer. This year USEPA released MCLs; analytical methods are evolving rapidly as the understanding of PFAS fate and transport, and human health impacts grows.

All this makes PFAS investigations challenging. Laboratory certification for the emerging PFAS methods is challenging. Jack had the difficult task of ensuring our analytical lab and their sub-lab would produce data that meets our needs. He was in constant contact with our Region 5 PFAS expert to ensure we select appropriate analytical methods, and the resulting data has sufficiently low reporting levels. Jack's attention to fieldwork details reduced the potential for cross-contamination and increased the integrity of samples results. He ensured all equipment including decon water was PFAS-free, even the ice packs. Additionally, there were times Jack needed to educate the consultants regarding cross-contamination risks.

Planning fieldwork for such involved cases is complex. Work was conducted over several days and multiple media were sampled: groundwater, surface water (boat ride!), pond water, sludge, soil and industrial effluent. Jack's vast fieldwork experience allowed him to anticipate issues and take action to prevent problems; consequently, the field work at both sites, while eventful, was conducted flawlessly.

Lastly, Jack's enthusiasm for fieldwork was infectious. Three coworkers, who are novice samplers, assisted Jack in the field; it was their fortune to receive on-the-job training in sound, defensible fieldwork procedures. There were some long, hot days but you wouldn't have thought so considering how energetic and happy he was. Jack shined.